

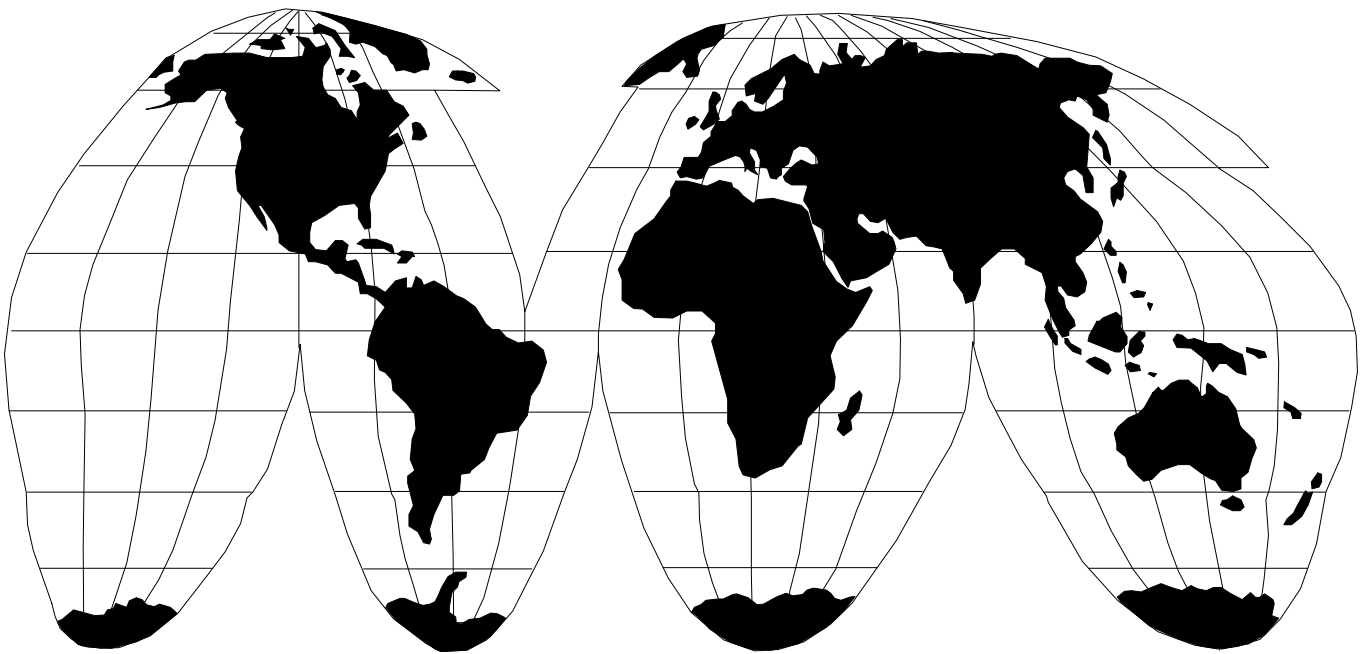
Advice Concerning the Proposed Expansion of the Information Technology Agreement: Phase II

Investigation No. 332-390

Publication 3104

May 1998

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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Preface

Following receipt on January 16, 1998, of a request from the United States Trade Representative (appendix A), the U.S. International Trade Commission instituted investigation 332-390, *Advice Concerning the Proposed Expansion of the Information Technology Agreement*. The purpose of this report is to provide information and advice on the information technology products under consideration for inclusion in the Information Technology Agreement.

Copies of the notice of the investigation were posted in the Office of the Secretary, U.S. International Trade Commission, Washington, DC 20436, and the notice was published in the *Federal Register* (62 F.R. 11222) on February 3, 1998 (appendix C). The Commission held a public hearing in connection with the investigation on March 19, 1998. All persons requesting an opportunity were allowed to appear by counsel or in person, to present information, and to be heard. In addition, interested parties were invited to submit written statements concerning the investigation.

The information and analysis provided in this report are for the purpose of this report only. Nothing in this report should be considered to reflect possible future findings by the Commission in any investigation conducted under statutory authority covering the same or similar subject matter.

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Executive Summary

Free trade in all electronic products has been a major U.S. objective since the Uruguay Round negotiations of the General Agreement on Tariffs and Trade. The Information Technology Agreement (ITA), signed by 28 countries or customs territories during the World Trade Organization (WTO) Ministerial meeting in Singapore in December 1996, and subsequently expanded to 43 signatories, made significant progress toward this goal by requiring participants to eliminate tariffs on certain information technology products by January 1, 2000. Signatories to the ITA agreed to meet periodically to review whether the product coverage should be modified to incorporate additional products and to consult on nontariff barriers to trade in information technology products. At the March 26, 1997, meeting of the WTO, ITA participants agreed that consultations on additional product coverage would begin on October 1, 1997, finish in 1998, and be implemented no later than January 1, 1999.

Recommendations by U.S. industry on products for inclusion in the ITA received pursuant to the U.S. Trade Representative (USTR)'s September 3, 1997, *Federal Register* notice were compiled by USTR, combined with products proposed by U.S. trading partners, and forwarded to the U.S. International Trade Commission with a request for information and advice. The advice provided in this report consists of detailed descriptions of the products in USTR's list, the uses of these products relative to both information technology and non-information technology industries and consumers, major producing countries, and U.S. trading partners. The report also includes a brief analysis of current tariff and nontariff barriers, patterns of U.S. imports and exports, and increased market opportunities resulting from proposed tariff modifications.

Elimination of tariffs on the products proposed for inclusion in the ITA is expected to increase market access opportunities in most ITA signatory markets for many of these products. The magnitude of the opportunities resulting from the inclusion of these products in the ITA is likely to vary by product and market and to be offset by a number of nontariff barriers and macroeconomic factors. Opportunities appear most promising in the high-tariff economies of Asia and Central Europe, where tariffs range from 15 to 50 percent, although financial crises in several Asian countries could reduce or eliminate some of these opportunities. However, these opportunities would not encompass Japan and China, the two largest markets in the region, since Japan's duty rates on these products are already at zero and China is not a signatory to the ITA. Similarly, Hong Kong has zero duty rates and is unlikely to provide increased market opportunities as a result of the ITA-II process. In addition, many Asian countries are low-cost producers of the products under consideration and are likely to supply the bulk of demand in the region. Finally, increased market access for selected products is likely in the EU, the United States, and Canada, all of which have tariffs on certain products that are sufficiently high to impede imports.

The trade-restricting effects of nontariff barriers vary significantly from country to country and may limit many of the benefits of tariff elimination. Although U.S. industry representatives cited many different types of impediments to trade, the most often cited barrier was a widespread lack of intellectual property rights (IPR) protection for the products covered by this report. Other problems encountered by U.S. exporters were unclear standards and certification requirements, especially the EU's Common European (CE) mark; discriminatory government procurement; subsidies by foreign governments to domestic producers; inconsistent customs procedures; and many other regulatory and structural impediments.

CHAPTER 1

Introduction

Free trade in all electronic products has been a U.S. objective since the Uruguay Round negotiations of the General Agreement on Tariffs and Trade. In its zero-for-zero initiative during the Uruguay Round, the United States identified electronic products as one of several possible sectors for reciprocal elimination of duties among its major trading partners. The Information Technology Agreement (ITA), signed by 28 countries or customs territories during the World Trade Organization (WTO) Ministerial meeting in Singapore in December 1996, made significant progress toward this goal by requiring participants to eliminate tariffs on certain information technology products by January 1, 2000. Since the Singapore Ministerial, the number of signatories to the ITA has grown from 28 to 43 and the agreement now covers over 90 percent of world trade in defined information technology products.

Signatories to the ITA agreed to meet periodically to review the product coverage contained in the Attachments to the ITA to determine whether the Attachments should be modified to incorporate additional products “in the light of technological development, experience in applying the tariff concessions, or changes in HS nomenclature.” In addition, participants agreed to consult on nontariff barriers to trade in information technology products. At the March 26, 1997, meeting of the WTO, ITA participants agreed that the first set of consultations on additional product coverage would begin on October 1, 1997, finish in 1998, and be implemented no later than January 1, 1999.

On September 3, 1997, the U.S. Trade Representative (USTR) published a notice in the *Federal Register* requesting comments by September 30, 1997, on the implementation and expansion of the ITA. More specifically, comments were requested on the following topics:

- discrepancies between current tariff nomenclature and emerging technology which may affect the expected market access benefits to the United States of the ITA;
- additional information technology products for which it would be in the interest of the United States to include in the ITA;
- expansion of the ITA to ensure a tariff-free environment for information products and services transmitted via the Internet;
- nontariff barriers affecting trade in ITA products; and
- possible acceleration of ITA duty reductions previously agreed.

On January 16, 1998, the U.S. International Trade Commission (Commission) received a letter from the USTR requesting that the Commission institute an investigation under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332 (g)) to provide information and advice on the information technology products under consideration for tariff modification.¹ Recommendations on products for inclusion in the ITA received pursuant to the September *Federal Register* notice were compiled by USTR and combined with products proposed by U.S. trading partners. The resulting list of products was attached to USTR’s request letter. USTR requested that the Commission deliver its advice in two phases. The first phase, completed on March 27, 1998, provided

¹ Under section 115 of the Uruguay Round Agreements Act, the President is required to seek advice from the USITC regarding the proposed action.

detailed descriptions of the products in USTR's list, the uses of these products relative to both information technology and non-information technology industries and consumers, major producing countries, and U.S. trading partners. The second phase of this report includes all of the information in the first phase and adds a brief analysis of current tariff and nontariff barriers, patterns of U.S. imports and exports, and increased opportunities resulting from proposed tariff modifications.

Structure of Report

This report covers the second of the two phases requested by USTR. It incorporates all of the information from the first phase and also provides analysis of patterns of trade, nontariff barriers, and opportunities presented by duty elimination for the products under study. These products have been divided into six groups for analysis--consumer electronics; office machines and photographic, navigational aid, and scientific apparatus; machines for the manufacture of information technology products; components, subassemblies, and accessories; paper, metal, plastic and other inputs; and industrial equipment and miscellaneous products. Analysis of the potential opportunities arising from tariff elimination and analysis of tariff and nontariff barriers in ITA signatory countries is provided for these groups with discussion of individual products only when the results for that product differ substantially from the group analysis. Additional information on product identification or analysis received too late to be included in the first phase has been included in this report. In addition, there is a table for each group that lists the products by *Harmonized Tariff System (HTS)* number. For each of these products the table shows the following:

- **Probable HTS classification and description**--Where possible, the description is limited to the specific product requested. In many instances, the description of the entire 8- or 10-digit 1997 HTS category is used either because the requested product represents the entire category or because the requested product cannot be distinguished from the other products in the category. Tariff elimination would be for the entire 8-digit category; in the case of 10-digit categories, new 8-digit tariff lines would need to be created for each product. For products that do not account for the entire HTS category and can be distinguished from the other products in that category, the HTS number is followed by (pt.) and the description is the suggested nomenclature to allow duty elimination only for the items identified.
- **Major uses**--Examples of end uses of the requested products are given both for information technology and non-information technology applications. For items considered to be finished information technology goods, "not applicable" has been entered under information technology uses.
- **Estimated share of end uses for products that are information technology-related**--Estimates are for the product coverage in the description and the definition of information technology below. Percentages are based on interviews with industry representatives and staff expertise. Where estimates for individual products varied, the estimate shown in the table is representative of the majority of the sources.
- **Major producing countries**--The Commission has identified up to three major world producers for each item on USTR's list. Wherever possible these countries are the top producers of the specific product requested. In other instances, when the product category was too narrow or too ill-defined to determine the top global producers, the top producers in the entire 8- or 10-digit 1997 HTS category are listed.
- **Major U.S. trading partners**--The top three import sources and export markets for 1997 for the entire 8- or 10-digit 1997 HTS category are listed.

- **U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments**--Interviews with private and public sector representatives and various sources of trade-related information are summarized.² The term “adverse impact” is included whenever a U.S. producer or association stated that the elimination of tariffs would be harmful; “minimal impact” is included when a U.S. producer or association did not feel that there would be a significant change as a result of tariff elimination. In some cases, interviews with industry identified support that was not reflected in submissions to USTR or to the Commission. These sources stated that they supported tariff elimination or that they thought that it would increase export opportunities. These comments are also reflected here.³ In addition, tariff levels that are considered significant by U.S. sources or by Commission staff are listed in the comments, as are instances where there are few or no U.S. producers. In rare instances, U.S. producers had no opinion or response, tariffs were not significant, and there were no other unusual factors; in these cases this section is left blank.
- **Reference number**-- The items on USTR’s list attached to the request letter were assigned the reference numbers in appendix D. These reference numbers refer to the item on the list from which the product in the table is derived.

The report consists of eight chapters. The first chapter gives the background and introduction to the report. Chapters 2 through 7 cover each of the six product groups, and the final chapter summarizes the Commission’s advice. The appendices to this study include the request letter from USTR (appendix A), the Chairman’s response letter to USTR (appendix B), and the *Federal Register* notice announcing the initiation of this study (appendix C). Appendix D assigns reference numbers to each of the items on USTR’s list, shows the probable *HTS* classification(s) for the product, and gives the chapter in which the product is included; this appendix provides a cross reference between the chapters in the report and the USTR list. The calendar for the Commission’s hearing is in appendix E. The final appendix (appendix F) contains 3 tables. The first table lists the products from the USTR list that Commission staff were unable to classify and analyze because of a lack of product information; the second table shows the products that the original requesters withdrew⁴ from consideration for tariff elimination subsequent to responding to USTR’s notice in the *Federal Register*; and the last table is a compilation of items on USTR’s list that are already covered in the ITA.

Methodology and Approach

The major tasks in the first phase of this report were identifying and classifying the products included on USTR’s list, collecting information on their uses, and contacting U.S. producers and associations to solicit their views on tariff elimination for these products. Because the original requesters of most of the products were consumers of these products and not producers, it was necessary to identify and contact as many of the U.S. producers of these items as possible. In addition, Commission staff reviewed trade and production statistics to determine major producing countries and the United States’ major trading partners.

In the second phase of the report, the Commission was requested to give advice on the opportunities presented by duty elimination for the products on USTR’s list. In order to give this advice, Commission staff

² U.S. producers and associations that submitted public statements in opposition to inclusion of any products are named in the table. Those that expressed their opinions to Commission staff in telephone interviews are not referred to by name.

³ In most cases, instances in which USTR was aware of industry support are not included. USTR was aware of industry support through written responses to its September *Federal Register* notice, other written submissions directly from industry, or public submissions received by the Commission that the Commission forwarded to USTR.

⁴ Written notification of all items withdrawn was received from the original requesters and forwarded to USTR.

analyzed patterns of trade, reviewed the tariffs of each of the 43 ITA signatories, and researched nontariff barriers for these products.

To identify, describe, and classify the products with accuracy, Commission staff met with many of the associations and companies that had submitted lists of products in response to USTR's *Federal Register* notice and contacted others by telephone and e-mail. The product specifications and uses received from these sources are the basis for the descriptions and *HTS* classifications shown in the tables. Time constraints and the limited amount of information available have not permitted any formal classification decision to be made on these products. The classifications presented in this report are not those of the U.S. Customs Service and should not be considered formal or informal rulings or advice. Commission staff also prepared questions about the products requested by U.S. trading partners and these questions were submitted to foreign representatives in Geneva in February. The Commission has subsequently received sufficient information to identify some of the foreign product requests. The Commission believes that the descriptions and classifications are correct, based on the information that has been received to date. However, further information may be developed beyond the time limitation for this study that would require revisions to these classifications.

Commission staff used a variety of sources to obtain the data for this report, including product literature, statistical sources, and interviews with industry and government representatives. Additional detailed information on the products, producers, and effects of duty elimination was obtained from testimony at a Commission hearing held March 19, 1998, and from submissions in response to the Commission's notice of investigation in the *Federal Register*. A telephone survey form⁵ was prepared and used by Commission staff when contacting industry sources for information and comments on the proposed tariff modifications.

For the purposes of this report, the definition of information technology encompasses the following products/industries:

- computers, peripherals, and parts
- electronic components
- semiconductor, printed circuit, and other electronic component manufacturing equipment
- telecommunications equipment
- consumer electronics
- office machines
- cameras and optical goods
- scientific equipment and instruments
- medical equipment
- radar, radio navigational aid, and radio remote control apparatus

In evaluating the uses of the products proposed for inclusion in the ITA, Commission staff used these product categories. There is no universally accepted definition of information technology. As a result, views differ widely regarding the products and the industries to be included under this rubric. The definition includes those products that, in the judgement of the Commission staff, constitute the universe of IT products. This judgement is based largely on the hundreds of interviews conducted by Commission staff with manufacturers of the products in over 800 *HTS* categories as well as with related trade associations. The Commission is aware that other industry definitions exist and that the use of these definitions would lead to the inclusion of different products. Not included in our definition are equipment and apparatus for process control, such as mechanical, pneumatic, and electrical control products for heating, ventilation, and air conditioning. Other products not included in our definition are panels and systems to control mechanical and electrical functions and parts and

⁵ The telephone survey was submitted to the Office of Management and Budget for emergency approval under the Paperwork Reduction Act. Approval was granted on Feb. 16, 1998.

subassemblies such as AC/DC drives and drive systems; standard and engineered motors; mechanical power transmission equipment; electrical cable, switches, and fuses; and sensing and motion control devices.

Comments on Suggested Products

The Commission has reviewed the list of products submitted by USTR for analysis and has not identified any additional products that could reasonably be expected to be included. However, our review of submissions by interested parties in response to the Commission's *Federal Register* notice identified several products not included on the USTR list. These items were not included in our analysis. The Commission has forwarded to USTR for its consideration all submissions received in connection with this investigation.

CHAPTER 2

Consumer Electronics

John Kitzmiller

Introduction

This chapter discusses trade patterns and nontariff barriers for consumer electronics under consideration for inclusion in the ITA. The items in this chapter, described in table 2-1, are grouped according to trade significance and function. All consumer electronics products are considered to be IT products for the purposes of this study. See table 2-2 at the end of this chapter for a complete list of all the consumer electronics products included in this report. Major producing countries, major U.S. trading partners, and trade-related information gathered from U.S. industry and government sources are also shown in the table. Outstanding antidumping orders in place on certain imports of color television receivers from Japan, Korea, and Taiwan; on television picture tubes from Canada, Japan, Korea, and Singapore; and on certain imports of radiobroadcast transmission apparatus from Japan are also listed in table 2-2.

Table 2-1
Major product groupings: Consumer electronics

Group	Principal products/uses
Television receivers, video monitors, and parts	<ul style="list-style-type: none">Television receivers, video monitors, video projectors, cathode-ray picture tubes, other parts
Audio equipment	<ul style="list-style-type: none">Radiobroadcast receivers (radios), record players, tape recorders and players, compact disc (CD) players, parts
Video recording and reproducing equipment	<ul style="list-style-type: none">Television and closed-circuit cameras, camcorders, video recording and editing equipment
Media	<ul style="list-style-type: none">Phonograph records, CDs, laser discs, recorded magnetic tape, exposed film
Other consumer electronics	<ul style="list-style-type: none">Speakers, microphones, amplifiers, transmission apparatus, television set top boxes, broadcasting apparatus

Source: Compiled by USITC staff.

Trade Patterns and Market Opportunities

U.S. imports of consumer electronics totaled \$20.3 billion in 1997, but exports were only \$8.5 billion that year.⁶ The trade imbalance in consumer electronics reflects the fact that there is little U.S. production of most consumer electronics products other than television receivers, picture tubes, media, and speakers. The principal U.S. import sources were Mexico,⁷ Japan, and China,⁸ which together accounted for 66 percent of imports in 1997. Imports from Mexico for most of these products already enter the United States duty free under the North American Free Trade Agreement (NAFTA). The major import categories were video recording and reproducing equipment, television receivers and video monitors, and radios, which together accounted for 62 percent of total imports of consumer electronics. The principal export markets for U.S. consumer electronics were Mexico, Canada, and Japan, together accounting for 54 percent of total exports in 1997. Exports to Mexico alone accounted for 30 percent of total exports. The major export categories were television receivers, video monitors and parts, audio equipment, and media, accounting for 79 percent of total exports. Much of the trade with Mexico and Canada is based on production sharing operations, whereby components and subassemblies of television receivers are exported from the United States to Mexico, assembled into television receivers, then re-imported into the United States. In a like manner, U.S. exports of automotive sound systems are incorporated into vehicles assembled in Mexico and Canada.

ITA signatory countries with high tariff rates on consumer electronics offer the greatest potential for increased market access opportunities. In this respect, markets such as Australia, the EU, Indonesia, Korea, Malaysia, New Zealand, the Philippines, Poland, Romania, Thailand, and Turkey, where tariff rates of at least 10 percent and as high as 50 percent would be eliminated, are likely to become more attractive.⁹ However, the effects of the fiscal austerity and currency devaluation that accompanied the financial crises in several Asian countries would likely more than offset the effects of duty elimination in those markets, at least for the next several years. Competition for market share among the low-cost Asian producers is expected to be fierce, and increased market access opportunities are not anticipated in Japan since duty rates on consumer electronics products are already zero. The EU, the United States, and Canada are likely to offer the greatest increase in market access among ITA signatories as a result of tariff elimination, but only for those products that have relatively high tariffs.

U.S. tariff rates on consumer electronics generally are low, ranging from zero to 5 percent. Canadian tariffs are slightly higher. The most significant U.S. tariff is on cathode-ray picture tubes, for which imports of non-North American origin remain subject to either a 9- or 15-percent duty, depending on screen size. In the EU, tariffs on many consumer electronics products range from 10 to 15 percent. Elimination of these tariffs could improve market access opportunities for low-cost Asian producers such as China, Malaysia, and Indonesia. Industry support for the inclusion of consumer electronics products in the ITA is mixed. U.S. companies using or selling imported consumer electronics products in the United States generally supported inclusion, as did some U.S. producers who felt that it would open foreign markets. Other U.S. producers opposed inclusion.¹⁰

⁶ All trade data are based on official statistics of the U.S. Department of Commerce (USDOC).

⁷ Mexico is not an ITA signatory.

⁸ China is not an ITA signatory.

⁹ Unless otherwise indicated, tariffs cited in this report are the final Uruguay Round concession rates which enter into effect Jan. 1, 1999. *Most-Favoured Nation Tariff Schedules, Annexes to Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations (Marrakesh Protocol)*, Apr. 15, 1994.

¹⁰ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

Television receivers, video monitors, and parts

U.S. imports of television receivers, video monitors, and parts were valued at \$6.1 billion in 1997. Japan and Mexico accounted for 76 percent of these imports. U.S. exports of television receivers, video monitors, and parts totaled \$3.8 billion in 1997. The major U.S. export markets were Canada¹¹ and Mexico, which allow duty-free entry of these U.S. exports as a result of the NAFTA; U.S. exports to these countries accounted for \$2.1 billion, or 57 percent of the total. Although the United States is a major producer of television receivers, U.S. production has been moving to Mexico for the past decade, a trend accelerated by the NAFTA.¹² As receiver production has shifted, the importance of Mexico as an export market for picture tubes has grown.

Color television receivers and cathode-ray tubes (CRTs) are consistently regarded as import-sensitive products in the United States. With certain minor exceptions, they have not been the subject of any U.S. duty reduction since the Kennedy Round of the General Agreement on Tariffs and Trade in the 1960s and have never been eligible for duty-free treatment under the Generalized System of Preferences (GSP).¹³ According to the Committee to Preserve American Color Television (COMPACT), removing the duty on television receivers, TV glass, CRTs, or competitive products would greatly damage the U.S. television and related industries and their more than 30,000 workers.¹⁴ Techneglas, a U.S. producer of glass parts for color CRTs, states that eliminating U.S. tariffs on color television receivers and video monitors, color picture tubes, and glass for color picture tubes will undermine NAFTA preferences designed to protect North American production of these items.¹⁵ Additionally, Clinton Electronics Corporation, a manufacturer of monochrome CRTs, maintains that increased foreign competition from low-cost producers of high-volume monochrome CRTs could threaten U.S. producers of both commodity CRTs and higher performance, low-volume CRTs which are critical for national security.¹⁶

A number of factors would counter increased market access opportunities afforded by tariff elimination. Generally, manufacturers of large-screen television receivers produce in, or in very close proximity to, the market in which they sell, because the cost of transporting television receivers and tubes increases with screen size. Further, power supply standards and broadcast standards vary among regions and countries, impeding trade. In addition, there is substantial excess picture tube production capacity throughout the world, particularly in Southeast Asia.¹⁷

The inclusion of television receivers and CRTs in the ITA could lead to increased market opportunities in high tariff rate counties in Asia such as Indonesia and Thailand; however, the increased opportunities are likely to benefit other Asian producers. Substantial excess CRT production capacity among globally competitive manufacturers in Southeast Asia is likely to meet any increased demand in the region. In addition,

¹¹ Canada began to phase out duties under the United States-Canada Free Trade Agreement and completed the phaseout under the NAFTA.

¹² For additional information, see USITC, *Production Sharing: Use of U.S. Components and Materials in Foreign Assembly Operations, 1993-96*, USITC pub. 3077, Dec. 1997, p. 3-36, and USITC, *Potential Impact on the U.S. Economy and Selected Industries of the North American Free-Trade Agreement*, USITC pub. 2596, Jan. 1993, p. 5-2.

¹³ Clifton L. Smith, Corning Asahi Video Products Co., representing COMPACT, testimony at USITC hearing on inv. 332-390, Mar. 19, 1998. However, imports of color television receivers from least-developed beneficiary developing countries did receive GSP status.

¹⁴ Ibid.

¹⁵ L. T. Hickey, Techneglas, Inc., written submission to USITC on inv. 332-390, Mar. 20, 1998.

¹⁶ Robert D. Tolliner, Clinton Electronics Corporation, written submission to USITC on inv. 332-390, Mar. 19, 1998.

¹⁷ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

Asian households generally do not have the room for larger screen television receivers and U.S. companies do not produce color television receivers or picture tubes with screen sizes under 20 inches. Further, transportation costs of the finished product will remain a major impediment to U.S. exports even if tariffs are eliminated. As a result, it is unlikely that U.S. exports of television receivers and parts will change if these products are included in the ITA.

Greater market access opportunities are likely to occur in the EU and, to a lesser extent, in the United States. EU tariffs on television receivers and CRTs are 14 percent and elimination of these tariffs could lead to increased market access opportunities, especially for Asian exporters. U.S. tariffs range from 3.9 percent to 5 percent on television receivers and from 9 percent to 15 percent on CRTs, but are free under NAFTA for U.S. imports from Mexico.¹⁸ The elimination of the NAFTA advantage for Mexican-assembled sets made with North American CRTs could lead to increased U.S. imports from Asia, either directly to the United States or through Mexico. Opportunities for Asian producers in both the EU and the United States are likely to be enhanced because the industry is large, well established, and likely to be very competitive in world markets in the near term as a result of the decline in currency values in several Asian countries.¹⁹

Audio equipment

1997 U.S. imports of audio equipment were valued at \$5.7 billion. The principal import sources were Japan, China, Malaysia, and Mexico, together accounting for 88 percent of 1997 U.S. imports. U.S. exports totaled \$1.3 billion in 1997; 43 percent of these exports went to Mexico and Canada, where most U.S. audio products are used in motor vehicles. Most U.S. audio equipment producers are affiliated with a U.S. motor vehicle manufacturer.

Among the ITA signatories with high tariffs on these products are several Asian countries, the EU, and other European countries such as Poland and Romania. The tariffs imposed by these countries range from 14 to 40 percent. Although the United States is not a major producer of audio equipment, at least one U.S. manufacturer is internationally competitive. Bose Corporation, a major producer of high-end audio electronics, states that the elimination of high tariffs on CD players and AM/FM receivers in its key markets in the EU and Asia would increase its export opportunities.²⁰ However, opportunities in Asian and EU markets are expected to be served mainly by low-cost Asian producers. Access to the U.S. market would also improve as a result of the elimination of tariff rates that now range from 3.7 to 8 percent for radio receivers or combinations and from 3.7 to 9 percent for turntables and CD players.

Video recording and reproducing equipment

1997 U.S. imports of video recording and reproducing equipment were valued at \$5.9 billion. The principal import sources were Japan, Malaysia, and Indonesia, all ITA participants, together accounting for 72 percent of 1997 U.S. imports. Japan supplies virtually all television and video cameras imported by the United States. U.S. exports totaled only \$655 million in 1997, of which Mexico and Canada received 42 percent. The low level of exports reflects the fact that there are no U.S. producers of lenses for cameras or

¹⁸ Under the NAFTA, U.S. imports from Mexico of these products qualifying as being of North American origin are duty free.

¹⁹ Clifton L. Smith, Corning Asahi Video Products Co., representing COMPACT, written submission to USITC on inv. 332-390, Mar. 13, 1998.

²⁰ Donald F. Cameron, Bose Corporation, written submission to USITC on inv. 332-390, Mar. 4, 1998.

videocassette or videotape recording or reproducing equipment.²¹ One U.S. video camera producer favored inclusion of video camera parts in the ITA while favoring exclusion of finished video cameras. This producer maintained that importing the parts required to assemble a camera can be more expensive than importing complete cameras.²²

The 14- to 40-percent duty rates on video recording or reproducing equipment in the EU and in many Asian markets make it likely that inclusion of these products would lead to increased market access opportunities for producers of these products. The financial turmoil in Asia is expected to offset many of the opportunities that would otherwise exist in those markets and currency devaluations will increase the price competitiveness of Asian producers in the EU. In contrast, the duty rates on television and video cameras for most other ITA signatories are relatively low, ranging from zero to almost 7 percent. Therefore, it is unlikely that inclusion of these cameras in the ITA would have a significant effect on global trade.²³ The value to a consumer of custom design more than offsets any cost increase due to tariffs.²⁴ U.S. producers believe that the Japanese market for this equipment is closed to foreign imports despite its free tariff, while the market in the EU, with low tariffs, is much more open.²⁵

Media

1997 U.S. imports of media were valued at \$454 million, of which Canada and the United Kingdom accounted for 48 percent of the total. U.S. exports totaled \$819 million, with exports to Canada and Japan, both ITA participants, accounting for 52 percent. However, trade statistics do not give an accurate picture of the competitiveness of the U.S. industry in foreign markets because, with the exception of digital versatile discs (DVD), recorded media sold abroad are not usually replicated in the United States. Instead, master films or music discs are replicated in the country or region of sale.

According to U.S. industry representatives, tariff elimination would result in increased foreign market opportunities for motion pictures and recorded music.²⁶ U.S. producers have stated that Poland and Korea often assess import duties on the perceived value of a film's future royalties rather than the film's length in meters, which greatly increases the amount of duty paid. Including these items in the ITA could stem this practice.²⁷ U.S. producers of recorded movies and music have cited the lack of intellectual property protection in many of the ITA signatories as the single largest nontariff barrier to trade in their products. U.S. industry representatives have reported that violations of the intellectual property rights of U.S. producers of recorded music and movies are a major trade barrier in EU Member States including Greece, Ireland, and Italy, as well as Hong Kong, India, Indonesia, Israel, Korea, the Philippines, Poland, Romania, Singapore, Taiwan, and Thailand.²⁸

²¹ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

²² Ibid.

²³ U.S. industry representatives, telephone interviews by USITC staff, Mar. 1998.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

²⁷ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Apr. 1998.

²⁸ International Intellectual Property Alliance, *1998 Special 301 Recommendations*, submitted to the USTR Feb. 23, 1998.

Other consumer electronics

1997 U.S. imports of all other consumer electronics were \$2.1 billion, supplied principally by Mexico, China, Taiwan, and Japan. Corresponding U.S. exports were \$1.9 billion, and the largest export markets were Mexico, Canada, and Japan. Although this group includes a wide variety of products, most ITA signatory tariffs are relatively low, ranging from zero to 10 percent. Since markets are smaller and somewhat fragmented for these products, increased market opportunities are not expected to be wide-ranging. However, certain opportunities may result from tariff elimination.

Tariff elimination for speakers may lead to some increase in trade, especially for non-enclosed speakers. However, market access opportunities for producers of enclosed speakers are likely to be offset by transportation costs which represent a significant share of the final cost of the product. However, U.S. producer Bose Corporation states that removing tariffs in the EU and Asia will enhance market opportunities for speakers, whether or not enclosed, in both of these regions.²⁹ The United States is a major producer and is internationally competitive in transmission apparatus such as analog cable set top terminals. General Instrument Corporation and Scientific-Atlanta, Inc., stated that tariff elimination by ITA signatories on these products will increase opportunities in rapidly growing foreign markets.³⁰ It is likely that U.S. exports would increase as a result of the inclusion of transmission apparatus in the ITA, especially in certain Asian and EU markets where tariffs range from 6.5 percent to 40 percent.³¹ However, increased opportunities are likely to be reduced by the effects of the Asian financial situation.

²⁹ Donald F. Cameron, Bose Corporation, written submission to USITC on inv. 332-390, Mar. 4, 1998.

³⁰ General Instrument specifically cites the EU's 14-percent tariff and Taiwan's 7.5-percent tariff as barriers to its exports. Don Vassal, General Instrument Corp., testimony at USITC hearing on inv. 332-390, Mar. 19, 1998, and Bob Loughrey, Scientific-Atlanta, Inc., written submission to USITC on inv. 332-390, Mar. 24, 1998.

³¹ Industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3706.10.30 Sound recordings on motion-picture film of a width of 35 mm or more suitable for use in connection with motion-picture exhibits	Motion pictures	None	100	U.S. India Canada	HK UK Colombia	UK Canada Korea		34
3706.10.60 Motion picture film, exposed and developed, whether or not incorporating a sound track, of a width of 35 mm or more, other than sound recordings on motion-picture film suitable for use in connection with motion-picture exhibits	Motion pictures	None	100	U.S. India Canada	Canada UK Australia	Canada Korea Italy	<ul style="list-style-type: none"> • Current U.S. tariff is free • Some U.S. trade associations anticipate increased foreign market opportunities 	34
7011.20.10 Glass cones for cathode-ray tubes	Television picture tubes Computer monitor tubes Industrial and military cathode-ray tubes	None	100	Korea U.S. Japan	Mexico Italy Brazil	Japan China Singapore	<ul style="list-style-type: none"> • U.S. producers anticipate adverse impact • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	83
7011.20.80 Glass panels or face plates for cathode-ray tubes; other glass parts, without fittings, of cathode-ray tubes	Television picture tubes Computer monitor tubes Industrial and military cathode-ray tubes	None	100	Korea U.S. Japan	Mexico Italy Brazil	Japan China Singapore	<ul style="list-style-type: none"> • U.S. producers anticipate adverse impact • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	83

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8518.10.80 Microphones other than those covered by ITA-I and microphone stands	Not applicable	None	100	U.S. Mexico Japan	Canada UK HK	Mexico Japan China	<ul style="list-style-type: none"> Industry association supports inclusion of this product in ITA-II 	230
8518.21.00 Single loudspeakers mounted in their enclosures	Not applicable	None	100	U.S. China Malaysia	Canada Japan Denmark	China Malaysia Taiwan	<ul style="list-style-type: none"> Industry association supports inclusion of this product in ITA-II 	231, 236
8518.22.00 Multiple loudspeakers, mounted in the same enclosure	Not applicable	None	100	U.S. China Mexico	Mexico Canada Japan	China Mexico Malaysia	<ul style="list-style-type: none"> Industry association supports inclusion of this product in ITA-II 	232
8518.29.80 Loudspeakers without housing, other than those covered by ITA-I	Not applicable	None	100	U.S. China Mexico	Mexico Canada HK	China Mexico Taiwan	<ul style="list-style-type: none"> Industry association supports inclusion of this product in ITA-II 	233
8518.30.20 Headphones, earphones, combined microphone/speaker sets other than line telephone handsets	Not applicable	None	100	U.S. Mexico Japan	Canada Mexico UK	China Mexico Korea	<ul style="list-style-type: none"> Industry association supports inclusion of this product in ITA-II 	234
8518.30.20(pt.) Kits for installation in motor vehicles to provide for hands- free operation of a cellular telephone	Not applicable	None	100	China Mexico Korea	Canada Mexico UK	China Mexico Korea	<ul style="list-style-type: none"> Industry association supports inclusion of this product in ITA-II 	328
8518.40.20 Audio-frequency electric amplifiers not for use as repeaters in line telephony	Not applicable	None	100	Mexico Korea China	Germany Canada Mexico	Mexico Korea China	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Current U.S. tariff is 4.6 percent 	235, 236

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8518.50.00 Electric sound amplifier sets	Not applicable	None	100	Korea Taiwan China	Japan Mexico Germany	Korea Taiwan China	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Current U.S. tariff is 4.9 percent 	237
8518.90.40 Parts of line telephone handsets of subheading 8518.30.10 and repeaters of subheading 8518.40.10, other than printed circuit assemblies	Telephone handsets	None	100	Japan Taiwan China	Mexico Brazil France	Japan Taiwan China	<ul style="list-style-type: none"> Current U.S. tariff is 8.5 percent 	238, 239
8518.90.80 Parts of microphones and stands, loudspeakers, headphones, earphones, combined microphone speaker sets, and audio-frequency amplifiers other than parts of line telephone handsets and repeaters or printed circuit assemblies for microphones or loud speakers covered under ITA-I	Microphones Loudspeakers Headphones Amplifiers	None	100	Japan Taiwan China	Mexico Canada Japan	Taiwan Japan Mexico	<ul style="list-style-type: none"> Current U.S. tariff is 4.9 percent 	238, 239
8519.21.00 Record players without loudspeakers, not coin-or token-operated	Not applicable	None	100	Japan Korea Singapore	None	Japan Korea Singapore	<ul style="list-style-type: none"> No U.S. production identified U.S. tariff will be free in 1999 	241
8519.29.00 Record players with loudspeakers, not coin- or token-operated	Not applicable	None	100	China Malaysia HK	None	China Malaysia HK	<ul style="list-style-type: none"> No U.S. production identified 	242

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8519.31.00 Turntables (record decks) with automatic record changing mechanisms	Not applicable	None	100	Malaysia Taiwan EU	None	Malaysia Taiwan UK	• No U.S. production identified	243
8519.39.00 Turntables (record decks) without automatic record changing mechanism	Not applicable	None	100	Japan Taiwan Korea	None	Japan Taiwan Korea	• No U.S. production identified • U.S. tariff will be free in 1999	244
8519.40.00 Transcribing machines	Not applicable	None	100	Japan China EU	None	Japan China Austria	• No U.S. production identified	245
8519.92.00 Pocket-size audio cassette players	Not applicable	None	100	China Malaysia Japan	Macao Mexico Ukraine	China Malaysia Japan	• U.S. tariff will be free in 1999	246
8519.93.40 Audio cassette players, other than pocket size, designed exclusively for motor vehicle installation	Not applicable	None	100	Mexico Japan Thailand	Mexico Canada Chile	Mexico Japan Thailand	• U.S. tariff will be free in 1999	247
8519.93.80 Audio cassette players, other than pocket size, not designed exclusively for motor vehicle installation	Not applicable	None	100	China Japan Indonesia	Mexico HK Venezuela	China Japan Indonesia	• U.S. tariff will be free in 1999	247
8519.99.00 Sound reproducing apparatus other than turntables, record players, transcribing machines and cassette players	Not applicable	None	100	Japan China Malaysia	Mexico Canada Brazil	Japan China Malaysia	• U.S. tariff will be free in 1999	248

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8519.99.0045 Optical disc players for sound reproduction	Not applicable	None	100	Japan China Malaysia	Mexico Canada Brazil	Japan China Malaysia	• U.S. tariff will be free in 1999	249
8520.10.00 Dictating machines not capable of operating without an external source of power	Not applicable	None	100	Japan EU Canada	Japan Germany Canada	Japan Austria Canada	• U.S. tariff will be free in 1999	250
8520.32.00 Digital audio type magnetic tape recorders incorporating sound reproducing apparatus	Not applicable	None	100	Japan EU China	UK Neth. Canada	Japan UK China	• U.S. tariff will be free in 1999	251
8520.33.00 Audio cassette tape recorders incorporating sound reproducing apparatus	Not applicable	None	100	China Japan Malaysia	Paraguay Spain Mexico	China Japan Malaysia	• U.S. tariff will be free in 1999	252
8520.39.00 Audio magnetic tape recorders and other sound recording apparatus, incorporating sound reproducing apparatus other than digital audio type or cassette type	Not applicable	None	100	Japan Switz. China	Colombia France Mexico	Japan Switz. China	• U.S. tariff will be free in 1999	253
8520.90.00 Audio magnetic tape recorders and other sound recording apparatus, not incorporating a sound reproducing device	Not applicable	None	100	Japan Malaysia EU	Mexico Taiwan Japan	Japan Malaysia UK	• U.S. tariff will be free in 1999	254

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8521.10.30 Color video reproducing apparatus, cartridge or cassette type, not capable of recording	Not applicable	None	100	Japan Thailand Korea	Mexico Venezuela Canada	Japan Thailand Korea	• U.S. tariff will be free in 1999	255
8521.10.60 Color video recording apparatus, cartridge or cassette type	Not applicable	None	100	Japan Malaysia Indonesia	Mexico Venezuela Canada	Japan Malaysia Indonesia	• U.S. tariff will be free in 1999	255
8521.10.90 Video recorders or reproducers, magnetic tape type, except color cartridge type or color cassette type	Not applicable	None	100	Malaysia India Japan	Mexico Venezuela Canada	Malaysia India Japan	• U.S. tariff will be free in 1999	255
8521.10.90(pt.) Digital video magnetic tape- type cassette recorders connectable to personal computers	Not applicable	None	100	Malaysia India Japan	Mexico Venezuela Canada	Malaysia India Japan	• U.S. tariff will be free in 1999	256
8521.90.00 Video recording or reproducing apparatus, other than magnetic tape-type	Not applicable	None	100	Japan EU Korea	Paraguay Belgium Japan	Japan Neth. Belgium	• U.S. tariff will be free in 1999	257, 258
8522.10.00 Pickup cartridges	Not applicable	None	100	Mexico Denmark Japan	Thailand UK France	Mexico Denmark Japan	• Some U.S. producers and trade associations anticipate minimal impact • Current U.S. tariff is 2.8 percent	259, 260

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8522.90.25 Printed circuit assemblies for articles provided for in subheading 8520.90, consisting of two or more pieces fastened or joined together	Not applicable	None	100	EU Indonesia HK	None	UK Indonesia HK	• No U.S. production identified	259, 262
8522.90.35 Assemblies and subassemblies of articles provided for in subheading 8520.90, consisting of two or more pieces fastened or joined together, other than printed circuit assemblies	Manufacture of magnetic tape recorders other than audio or video recorders	None	100	Japan Canada China	Mexico Canada Japan	Japan Canada China	• Current U.S. tariff is 2.8 percent	259, 262
8522.90.55 Parts of telephone answering machines, other than printed circuit assemblies	Not applicable	None	100	Japan China HK	Mexico Canada Japan	Canada Japan Mexico	• Current U.S. tariff is 2.8 percent	259, 262, 263
8522.90.65 Printed circuit assemblies suitable for use solely or principally with sound or video recording or reproducing apparatus other than articles provided for in subheading 8520.90, and telephone answering machines	Not applicable	None	100	Mexico Japan Taiwan	Mexico Canada Japan	Mexico Japan Taiwan	• Current U.S. tariff is 2.8 percent	259, 262

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8522.90.75 Parts and accessories other than printed circuit assemblies suitable for use solely or principally with sound or video recording or reproducing apparatus other than articles provided for in subheading 8520.90, and telephone answering machines	Manufacture of audio and video recording and reproducing apparatus and other magnetic tape recorders	None	100	Japan China Malaysia	Mexico Canada Japan	Japan China Malaysia	<ul style="list-style-type: none"> Current U.S. tariff is 2.8 percent 	259, 262
8523.30.00 Cards incorporating a magnetic stripe (unrecorded)	Credit cards Telephone cards	None	100	U.S. UK	Malaysia Canada Singapore	Canada UK Japan	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 U.S. producers and trade association support inclusion in ITA-II 	264
8524.10.00 Phonograph records	Not applicable	None	100	U.S. UK	Japan Germany Mexico	UK Germany Mexico	<ul style="list-style-type: none"> U.S. producers and trade association support inclusion of this product in ITA-II 	265
8524.32.00 Discs for laser reading systems for reproducing sound only	Not applicable	None	100	U.S. UK	Canada Japan UK	Canada UK Germany	<ul style="list-style-type: none"> U.S. producers and trade association support inclusion in ITA-II U.S. trade association anticipates increased foreign market opportunities U.S. tariff will be free in 1999 	266

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8524.39.80 Discs for laser reading systems other than for those reproducing sound only, those for reproducing phenomena other than sound or image, or those for reproducing representations of instructions, data, sound and image, recorded in machine readable binary form	Not applicable	None	100	HK Macau Malaysia	Canada Japan Brazil	Canada Japan India	<ul style="list-style-type: none"> U.S. producers and trade association support inclusion in ITA-II Major producing countries listed produce mostly pirated video discs and DVD The United States is the major producing country of legitimate DVD, and China is the major producing country of legitimate video discs 	267
8524.51.10 News sound recordings relating to current events on magnetic tapes of a width not exceeding 4 mm	Not applicable	None	100	U.S.	UK Korea Australia	Germany Mexico Japan	<ul style="list-style-type: none"> Current U.S. tariff is free 	268
8524.51.30 Recordings other than news sound recordings on magnetic tapes of a width not exceeding 4 mm	Not applicable	None	100	U.S. UK	Canada Japan UK	Canada Mexico UK	<ul style="list-style-type: none"> U.S. producers and trade association support inclusion of this product in ITA-II 	268
8524.52.10 Video tape recordings of a width exceeding 4 mm but not exceeding 6.5 mm	Not applicable	None	100	Japan	Canada Japan Korea	Mexico Canada Japan	<ul style="list-style-type: none"> Appears to be very limited use of this product by U.S. producers or consumers 	269
8524.52.20 Magnetic tape recordings, other than video, of a width exceeding 4 mm but not exceeding 6.5 mm	Not applicable	None	100	Japan	Canada Japan Korea	Japan Finland India	<ul style="list-style-type: none"> Appears to be very limited use of this product by U.S. producers or consumers 	269

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8524.53.10 Video tape recordings of a width exceeding 6.5 mm	Not applicable	None	100	U.S.	Canada Mexico Japan	Mexico Japan Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 U.S. producers and trade association support inclusion of this product in ITA-II 	270
8524.53.20 Magnetic tape recordings, other than video, of a width exceeding 6.5 mm	Not applicable	None	100	Japan	Canada Japan Taiwan	Neth. Canada India	<ul style="list-style-type: none"> Appears to be very limited use of this product by U.S. producers or consumers 	270
8524.60.00 Cards incorporating a magnetic stripe (recorded)	Not applicable	None	100	U.S. UK Germany	UK France Canada	Japan Canada UK	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 U.S. producers and trade association support inclusion of this product in ITA-II 	271
8524.99.90 Recorded media other than records, magnetic tape, and cards with a magnetic stripe not elsewhere specified or included	Not applicable	None	100	Japan U.S.	Japan Canada UK	Canada Germany Neth.	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	272
8525.10.30 Transmission apparatus for television, other than set top boxes of subheading 8525.10.10	Not applicable	None	100	Taiwan Mexico Japan	HK Australia UK	Canada Japan China	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate minimal impact 	273
8525.10.70 Transmission apparatus for radio broadcasting	Not applicable	None	100	U.S. Canada Japan	HK Australia UK	Canada Japan China	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Outstanding antidumping duty order in place on certain imports from Japan (A-588-405) 	273

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8525.30.60 Studio television cameras, excluding shoulder-carried and other portable cameras	Not applicable	None	100	Japan EU Canada	None	Neth. Japan Portugal	• No U.S. production identified	274
8525.30.9005(pt.) Color television surveillance cameras	Not applicable	None	100	Japan EU Thailand	Paraguay Canada UK	Japan UK Portugal	• Some U.S. producers anticipate adverse impact	261
8525.30.9005(pt.) Color television cameras of a kind used for video conferencing	Not applicable	None	100	Japan EU Thailand	Paraguay Canada UK	Japan UK Portugal	• Some U.S. producers anticipate adverse impact	275, 276
8525.30.9005(pt.) Color television surveillance cameras for professional use in controlling roads, including vehicle speed	Not applicable	None	100	Japan EU Thailand	Paraguay Canada UK	Japan UK Portugal	• Some U.S. producers anticipate adverse impact	277
8525.30.9060(pt.) Television cameras of a kind used for video conferencing, other than color	Not applicable	None	100	Japan Korea Malaysia	Paraguay Canada UK	Japan Korea Malaysia	• Some U.S. producers anticipate adverse impact	275, 276
8525.30.9060(pt.) Television surveillance cameras for professional use in controlling roads, including vehicle speed, other than color	Not applicable	None	100	Japan Korea Malaysia	Paraguay Canada UK	Japan Korea Malaysia	• Some U.S. producers anticipate adverse impact	277
8525.30.9060(pt.) Television surveillance cameras, other than color	Not applicable	None	100	Japan Korea Malaysia	Paraguay Canada UK	Japan Korea Malaysia	• Some U.S. producers anticipate adverse impact	261

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8525.40.80 Still image video cameras and other video camera recorders, other than digital still image video cameras	Not applicable	None	100	Japan China Korea	None	Japan China Korea	• No U.S. production identified	278
8525.40.80(pt.) Digital video camera recorders, other than still image	Not applicable	None	100	Japan China Korea	None	Japan China Korea	• No U.S. production identified	279
8525.40.8085(pt.) Apparatus for transferring cinematographic films to video recordings	Not applicable	None	100	Japan Korea Taiwan	Germany Canada Japan	Japan Korea Taiwan	• Some U.S. producers anticipate minimal impact	510
8527.12.00 Pocket-size radio cassette players capable of operating without an external source of power	Not applicable	None	100	Malaysia China Taiwan	None	Malaysia China Taiwan	• No U.S. production identified • U.S. tariff will be free in 1999	280
8527.13.11 Radiobroadcast receivers, other than pocket-size, capable of operating without an external source of power, incorporating tape players which are incapable of recording	Not applicable	None	100	China Indonesia Taiwan	None	China Indonesia Taiwan	• No U.S. production identified • U.S. tariff will be free in 1999	281
8527.13.20 Radiobroadcast receivers, other than pocket-size, capable of operating without an external source of power, incorporating a tape recorder	Not applicable	None	100	China Malaysia HK	None	China Malaysia HK	• No U.S. production identified • U.S. tariff will be free in 1999	281

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8527.13.40 Radiobroadcast receivers capable of operating without an external source of power, incorporating a phonograph	Not applicable	None	100	China Denmark	None	China Denmark	<ul style="list-style-type: none"> No U.S. production identified U.S. tariff will be free in 1999 	281
8527.19.10 Radiobroadcast receivers capable of operating without an external source of power, incorporating a clock or clock- timer, not valued over \$40 each, not in combination with any other article, not designed for motor vehicle installation, and other than pocket-size	Not applicable	None	100	China Taiwan Malaysia	None	China Taiwan Malaysia	<ul style="list-style-type: none"> No U.S. production identified Current U.S. tariff is free 	282
8527.19.50 Radiobroadcast receivers capable of operating without an external source of power, not pocket-size, not combined with sound recording or reproducing apparatus, and not a clock/radio combination valued at \$40 or less each	Not applicable	None	100	China Philippines Taiwan	None	China Philippines Taiwan	<ul style="list-style-type: none"> No U.S. production identified 	282
8527.21.10 Radiobroadcast receiver-tape player combinations not capable of operating without an external source of power, of a kind used in motor vehicles	Not applicable	None	100	Mexico Brazil Japan	Canada Mexico Japan	Mexico Brazil Japan	<ul style="list-style-type: none"> Current U.S. tariff is 2.7 percent 	283

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8527.21.40 Radiobroadcast receivers combined with sound recording or reproducing apparatus other than radio-tape player combinations, not capable of operating without an external source of power, of a kind used in motor vehicles	Not applicable	None	100	Mexico Malaysia Japan	Canada Mexico Japan	Mexico Malaysia Japan	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	283
8527.39.0020 Radiobroadcast receivers not capable of operating without an external source of power, not of a kind used in motor vehicles, not combined with sound recording or reproducing apparatus or with a clock, without speaker(s)	Not applicable	None	100	Malaysia Indonesia China	Canada Japan Mexico	Malaysia Indonesia China		285
8528.12.04 Incomplete or unfinished color television reception apparatus (including assemblies for television receivers consisting of all the parts specified in additional U.S. note 10 to Ch. 85 plus a power supply), incorporating video recording or reproducing apparatus but not incorporating a cathode-ray tube, flat panel screen or similar display device	Manufacture of color television receivers	None	100	U.S. Indonesia Malaysia	Mexico Brazil Venezuela	Indonesia Malaysia Japan	<ul style="list-style-type: none"> Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.04(pt.) Incomplete or unfinished color television receiver capable of connection to the Internet	Manufacture of color television receivers	None	100	U.S. Indonesia Malaysia	Mexico Brazil Venezuela	Indonesia Malaysia Japan	<ul style="list-style-type: none"> Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.08 Incomplete or unfinished color television reception apparatus (including assemblies for television receivers consisting of all the parts specified in additional U.S. note 10 to Ch. 85 plus a power supply), not incorporating a cathode-ray tube, flat panel screen or similar display device, or video recording or reproducing apparatus	Manufacture of color television receivers	None	100	U.S. Mexico EU	Mexico Brazil Venezuela	Mexico Neth. UK	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Techneglas, Inc. opposes inclusion in ITA-II 	286
8528.12.08(pt.) Incomplete or unfinished color television receiver capable of connection to the Internet	Manufacture of color television receivers	None	100	U.S. Mexico EU	Mexico Brazil Venezuela	Mexico Neth. UK	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.12 Color television receivers, non-high definition, having a single picture tube, non-projection, incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Malaysia Thailand Mexico	Canada Mexico Venezuela	Malaysia Thailand Mexico	<ul style="list-style-type: none"> • U.S. tariff will be free in 1999 • Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	286
8528.12.12(pt.) Television receivers capable of connection to the Internet, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Malaysia Thailand Mexico	Canada Brazil Venezuela	Malaysia Thailand Mexico	<ul style="list-style-type: none"> • U.S. tariff will be free in 1999 • Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.16 Color television receivers, non-high definition, having a single picture tube, non-projection, incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm but not exceeding 35.56 cm	Not applicable	None	100	Malaysia Thailand Mexico	Canada Mexico Venezuela	Malaysia Thailand Mexico	<ul style="list-style-type: none"> • Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.16(pt.) Television receivers capable of connection to the Internet, with a video display diagonal exceeding 33.02 cm but not exceeding 35.56 cm	Not applicable	None	100	Malaysia Thailand Mexico	Canada Mexico Venezuela	Malaysia Thailand Mexico	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.20 Color television receivers, non-high definition, having a single picture tube, non-projection, not incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Mexico Malaysia Thailand	Canada Mexico Venezuela	Mexico Malaysia Thailand	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.20(pt.) Television receivers capable of connection to the Internet, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Mexico Malaysia Thailand	Canada Mexico Venezuela	Mexico Malaysia Thailand	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.24 Color television receivers, non- high definition, having a single picture tube, non-projection, not incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm but not exceeding 35.56 cm	Not applicable	None	100	Thailand Mexico Malaysia	Canada Mexico Venezuela	Thailand Mexico Malaysia	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.24(pt.) Television receivers capable of connection to the Internet, with a video display diagonal exceeding 33.02 cm but not exceeding 35.56 cm	Not applicable	None	100	Thailand Mexico Malaysia	Canada Mexico Venezuela	Thailand Mexico Malaysia	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.28 Color television receivers, non-high definition, having a single picture tube, non-projection, incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 35.56 cm	Not applicable	None	100	Thailand Mexico Malaysia	Canada Mexico Venezuela	Thailand Mexico Malaysia	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.28(pt.) Television receivers capable of connection to the Internet, with a video display diagonal exceeding 35.56 cm	Not applicable	None	100	Thailand Mexico Malaysia	Canada Mexico Venezuela	Thailand Mexico Malaysia	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.32 Color television receivers, non- high definition, having a cathode-ray tube, non- projection, not incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 35.56 cm	Not applicable	None	100	EU Japan U.S.	Brazil Mexico Korea	Mexico Malaysia Thailand	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.32(pt.) Television receivers capable of connection to the Internet, with a video display diagonal exceeding 35.56 cm	Not applicable	None	100	EU Japan U.S.	Brazil Mexico Korea	Mexico Malaysia Thailand	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.36 Color television receivers, non- high definition, having a cathode-ray tube, projection- type, incorporating video recording or reproducing apparatus	Not applicable	None	100	U.S. EU Malaysia	Brazil Mexico Korea	Malaysia Japan Mexico	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.36(pt.) Television receivers capable of connection to the Internet	Not applicable	None	100	U.S. EU Malaysia	Brazil Mexico Korea	Malaysia Japan Mexico	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.40 Color television receivers, non-high definition, having a cathode-ray tube, projection type, not incorporating video recording or reproducing apparatus	Not applicable	None	100	U.S. Mexico Canada	Brazil Mexico Korea	Mexico Canada Korea	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.40(pt.) Television receivers capable of connection to the Internet	Not applicable	None	100	U.S. Mexico Canada	Brazil Mexico Korea	Mexico Canada Korea	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.44 Color television receivers, high definition, having a cathode-ray tube, non-projection type, incorporating video recording or reproducing apparatus	Not applicable	None	100	U.S. EU Korea	Brazil Mexico Korea	Denmark Germany Korea	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.44(pt.) Television receivers capable of connection to the Internet	Not applicable	None	100	U.S. Mexico Canada	Brazil Mexico Korea	Denmark Germany Korea	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.48 Color television receivers, high definition, having a cathode-ray tube, non-projection type, not incorporating video recording or reproducing apparatus	Not applicable	None	100	Japan	Brazil Mexico Korea	Japan Korea Belgium	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.48(pt.) Television receivers capable of connection to the Internet	Not applicable	None	100	U.S. Mexico Canada	Brazil Mexico Korea	Japan Korea Belgium	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.52 Color television receivers, high definition, having a cathode-ray tube, projection type, incorporating video recording or reproducing apparatus	Not applicable	None	100	Japan	Brazil Mexico Korea	Belgium Germany Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.52(pt.) Television receivers capable of connection to the Internet	Not applicable	None	100	EU Japan U.S.	Brazil Mexico Korea	Belgium Germany Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.56 Color television receivers, high definition, having a cathode-ray tube, projection type, not incorporating video recording or reproducing apparatus	Not applicable	None	100	U.S. Mexico Canada	Brazil Mexico Korea	Japan Italy Spain	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.56(pt.) Television receivers capable of connection to the Internet	Not applicable	None	100	U.S. Mexico Canada	Brazil Mexico Korea	Japan Italy Spain	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.62 Color television receivers, with a flat panel screen, incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Japan EU Mexico	Canada Mexico Venezuela	Japan UK Norway	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.62(pt.) Television receivers capable of connection to the Internet, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Japan EU Mexico	Canada Mexico Venezuela	Japan UK Norway	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.64 Color television receivers, with a flat panel screen, incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	China Malaysia Japan	Canada Mexico Venezuela	China Malaysia Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.64(pt.) Television receivers capable of connection to the Internet, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	China Malaysia Japan	Canada Mexico Venezuela	China Malaysia Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.68 Color television receivers, with a flat panel screen, not incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Malaysia Japan China	Canada Mexico Venezuela	Malaysia Japan China	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.68(pt.) Television receivers capable of connection to the Internet, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Malaysia Japan China	Canada Mexico Venezuela	Malaysia Japan China	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.72 Color television receivers, with a flat panel screen, not incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	Japan Mexico EU	Brazil Mexico Korea	Japan Mexico Belgium	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.72(pt.) Television receivers capable of connection to the Internet, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	Japan Mexico EU	Brazil Mexico Korea	Japan Mexico Belgium	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.76 Color television receivers, other than with a single cathode-ray tube or a flat panel screen, incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Malaysia Taiwan Japan	Canada Mexico Venezuela	Malaysia Taiwan Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.76(pt.) Television receivers capable of connection to the Internet, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Malaysia Taiwan Japan	Canada Mexico Venezuela	Malaysia Taiwan Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.80 Color television receivers, other than with a single cathode-ray tube or a flat panel screen, incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	Malaysia Thailand EU	Brazil Mexico Korea	Malaysia Thailand Germany	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.80(pt.) Television receivers capable of connection to the Internet, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	Malaysia Thailand EU	Brazil Mexico Korea	Malaysia Thailand Germany	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.84 Color television receivers, other than with a single cathode-ray tube or a flat panel screen, not incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Malaysia China Japan	Canada Mexico Venezuela	Malaysia China Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.84(pt.) Television receivers capable of connection to the Internet, with a video display diagonal not exceeding 33.02 cm, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Malaysia China Japan	Canada Mexico Venezuela	Malaysia China Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.12.96(pt.) Color television receivers, other than with a single cathode-ray tube or a flat panel screen, not incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	Japan Malaysia HK	Brazil Mexico Korea	Malaysia HK Italy	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	286

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.12.96(pt.) Integrated receiver/decoders (IRD) for reception and decoding of television transmissions relayed by satellite	Not applicable	None	100	U.S. Malaysia Hong Kong	Brazil Mexico Korea	Malaysia HK Italy	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	288
8528.12.96(pt.) Television receivers capable of connection to the Internet, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	Japan Malaysia HK	Brazil Mexico Korea	Malaysia UK Italy	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan, Taiwan, and Korea (A-588-015, A-583-009, and A-580-008) Industry opinion is divided on inclusion Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	289
8528.13.00 Black and white or other monochrome reception apparatus for television	Not applicable	None	100	China Korea EU	None	China Korea UK	<ul style="list-style-type: none"> No U.S. production identified Outstanding antidumping duty order in place on certain imports from Japan and Korea (A-588-015 and A-580-008) Clinton Electronics Corporation opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	290

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.21.05 Incomplete or unfinished color video monitors (including assemblies consisting of the parts specified in subdivisions (a), (b), (c), and (e) in additional U.S. note 10 to Ch. 85 plus a power supply), incorporating video recording or reproducing apparatus but not incorporating a cathode-ray tube, flat panel screen or similar display device	Manufacture of video monitors	None	100	Taiwan Korea Japan	Canada Germany UK	Taiwan Korea Japan	<ul style="list-style-type: none"> • U.S. tariff will be free in 1999 • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.10 Incomplete or unfinished color video monitors (including assemblies consisting of the parts specified in subdivisions (a), (b), (c), and (e) in additional U.S. note 10 to Ch. 85 plus a power supply), not incorporating a cathode-ray tube, flat panel screen or similar display device, not incorporating video recording or reproducing apparatus	Manufacture of video monitors	None	100	Korea Thailand Japan	Canada Germany UK	Korea Thailand Japan	<ul style="list-style-type: none"> • Some U.S. producers anticipate adverse impact • U.S. tariff will be free in 1999 • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	291

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.21.16 Color video monitors, non-high definition, having a single picture tube, non-projection, incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Thailand Japan Korea	Canada Germany UK	Thailand Japan Korea	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.19 Color video monitors, non-high definition, having a single picture tube, non-projection, incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm but not exceeding 35.56 cm	Not applicable	None	100	Korea Taiwan Japan	Canada Germany UK	Korea Taiwan Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.24 Color video monitors, non-high definition, having a single picture tube, non-projection, not incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Japan EU Mexico	Canada Germany UK	Japan UK Mexico	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.21.29 Color video monitors, non-high definition, having a single picture tube, non-projection, not incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm but not exceeding 35.56 cm	Not applicable	None	100	Japan EU Israel	Canada Germany UK	Japan UK Israel	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.34 Color video monitors, non-high definition, having a single picture tube, non-projection, incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 35.56 cm	Not applicable	None	100	Thailand EU China	Canada Germany UK	Thailand Germany Belgium	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.39 Color video monitors, non-high definition, having a single picture tube, non-projection, not incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 35.56 cm	Not applicable	None	100	Japan Mexico EU	Canada Germany UK	Japan Mexico UK	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.41 Color video monitors, non-high definition, having a cathode-ray tube, projection-type, incorporating video recording or reproducing apparatus	Not applicable	None	100	Japan Taiwan	Canada Germany UK	Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.21.42 Color video monitors, non-high definition, having a cathode-ray tube, projection type, not incorporating video recording or reproducing apparatus	Not applicable	None	100	Mexico EU Japan	Canada Germany UK	Mexico Belgium Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.44 Color video monitors, high definition, having a cathode-ray tube, non-projection type, incorporating video recording or reproducing apparatus	Not applicable	None	100	Japan China EU	Canada Germany UK	Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.49 Color video monitors, high definition, having a cathode-ray tube, non-projection type, not incorporating video recording or reproducing apparatus	Not applicable	None	100	Korea Japan EU	Canada Germany UK	Korea Japan Belgium	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.51 Color video monitors, high definition, having a cathode-ray tube, projection type, incorporating video recording or reproducing apparatus	Not applicable	None	100	Korea Canada	Canada Germany UK	Korea	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.21.52 Color video monitors, high definition, having a cathode-ray tube, projection type, not incorporating video recording or reproducing apparatus	Not applicable	None	100	EU Japan Taiwan	Canada Germany UK	Japan Taiwan Singapore	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.55 Color video monitors, with a flat panel screen, incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Japan Singapore Taiwan	Canada Germany UK	Japan Singapore Taiwan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.60 Color video monitors, with a flat panel screen, incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	U.S. Japan Mexico	Canada Germany UK	Japan Mexico Australia	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.65 Color television receivers, with a flat panel screen, not incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	U.S. Japan Mexico	Canada Germany UK	Japan Mexico Taiwan	<ul style="list-style-type: none"> Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.21.70 Color video monitors, with a flat panel screen, not incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	U.S. Japan Mexico	Canada Germany UK	Japan Taiwan UK	<ul style="list-style-type: none"> Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.75 Color video monitors, other than with a single cathode-ray tube or a flat panel screen, incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	U.S. Japan Mexico	Canada Germany UK	France Japan Italy	<ul style="list-style-type: none"> Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.21.80 Color video monitors, other than with a single cathode-ray tube or a flat panel screen, incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	U.S. Japan Mexico	Canada Germany UK	Taiwan China Belgium	<ul style="list-style-type: none"> Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.21.85 Color video monitors, other than with a single cathode-ray tube or a flat panel screen, not incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Japan Singapore Taiwan	Canada Germany UK	Japan Singapore Taiwan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	291
8528.22.00 Black and white or other monochrome video monitors	Not applicable	None	100	Korea Japan Taiwan	Canada Brazil Japan	Korea Japan Taiwan	<ul style="list-style-type: none"> Clinton Electronics Corporation opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	292
8528.30.10 Incomplete or unfinished color video projectors (including assemblies consisting of the parts specified in subdivisions (a), (b), (c), and (e) in additional U.S. note 10 to Ch. 85 plus a power supply), incorporating video recording or reproducing apparatus but not incorporating a cathode-ray tube, flat panel screen or similar display device	Manufacture of video projectors	None	100	EU Japan Taiwan	Japan Canada Mexico	UK Japan Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.30.10(pt.) Incomplete or unfinished color video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Manufacture of video projectors	None	100	EU Japan Taiwan	Japan Canada Mexico	UK Japan Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294
8528.30.20 Incomplete or unfinished color video projectors (including assemblies consisting of the parts specified in subdivisions (a), (b), (c), and (e) in additional U.S. note 10 to Ch. 85 plus a power supply), not incorporating a cathode-ray tube, flat panel screen or similar display device, or video recording or reproducing apparatus	Manufacture of video projectors	None	100	EU Japan Canada	Japan Canada Mexico	UK Japan Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293
8528.30.20(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Not applicable	None	100	EU Japan Canada	Japan Canada Mexico	UK Japan Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.30.30 Color video projectors, non-high definition, with a cathode-ray tube, incorporating video recording or reproducing apparatus	Not applicable	None	100	Japan EU	Japan Canada Mexico	Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293
8528.30.30(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Not applicable	None	100	Japan EU	Japan Canada Mexico	Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294
8528.30.40 Color video projectors, non-high definition, with a cathode-ray tube, not incorporating video recording or reproducing apparatus	Not applicable	None	100	Japan Mexico EU	Japan Canada Mexico	Mexico Italy Belgium	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293
8528.30.40(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Not applicable	None	100	Japan Mexico EU	Japan Canada Mexico	Mexico Italy Belgium	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.30.50 Color video projectors, high definition, with a cathode-ray tube, incorporating video recording or reproducing apparatus	Not applicable	None	100	Japan Canada EU	Japan Canada Mexico	Italy Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293
8528.30.50(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Not applicable	None	100	Japan Canada EU	Japan Canada Mexico	Italy Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294
8528.30.60 Color video projectors, high definition, with a cathode-ray tube, not incorporating video recording or reproducing apparatus	Not applicable	None	100	Japan EU Malaysia	Japan Canada Mexico	Japan Canada Neth.	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293
8528.30.60(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Not applicable	None	100	Japan EU Malaysia	Japan Canada Mexico	Japan Canada Neth.	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.30.62 Color video projectors, with a flat panel screen, incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Taiwan Japan EU	Japan Canada Mexico	Japan Ireland	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293
8528.30.62(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471 with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Taiwan Japan EU	Japan Canada Mexico	Japan Ireland	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294
8528.30.64 Color video projectors, with a flat panel screen, incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	Taiwan Japan EU	Japan Canada Mexico	Taiwan Japan UK	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.30.64(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471 with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	Taiwan Japan EU	Japan Canada Mexico	Taiwan Japan UK	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294
8528.30.66 Color video projectors, with a flat panel screen, not incorporating video recording or reproducing apparatus, with a video display diagonal not exceeding 33.02 cm	Not applicable	None	100	Japan Norway Taiwan	Japan Canada Mexico	Japan Norway Taiwan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 	293
8528.30.66(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Not applicable	None	100	Japan Norway Taiwan	Japan Canada Mexico	Japan Norway Taiwan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294
8528.30.68 Color video projectors, with a flat panel screen, not incorporating video recording or reproducing apparatus, with a video display diagonal exceeding 33.02 cm	Not applicable	None	100	Japan Norway Korea	Japan Canada Mexico	Japan Norway Korea	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293

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Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.30.68(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Not applicable	None	100	Japan Norway Korea	Japan Canada Mexico	Japan Norway Korea	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294
8528.30.72 Color video projectors, other than with a cathode-ray tube or a flat panel screen, incorporating video recording or reproducing apparatus	Not applicable	None	100	Japan Switz. EU	Japan Canada Mexico	Japan Switz. Belgium	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293
8528.30.72(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Not applicable	None	100	Japan Switz. EU	Japan Canada Mexico	Japan Switz. Belgium	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294
8528.30.78 Color video projectors, other than with a cathode-ray tube or a flat panel screen, not incorporating video recording or reproducing apparatus	Not applicable	None	100	Japan EU Canada	Japan Canada Mexico	Japan Italy Neth.	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8528.30.78(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Not applicable	None	100	Japan EU Canada	Japan Canada Mexico	Japan Italy Neth.	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294
8528.30.90 Black and white or other monochrome video projectors	Not applicable	None	100	China EU Korea	Mexico Brazil Argentina	China Neth. Sweden	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	293
8528.30.90(pt.) Video projectors which incorporate a data input terminal for connection to an automatic data processing machine, other than those solely or principally used with ADP machines of 8471	Not applicable	None	100	China EU Korea	Mexico Brazil Argentina	China Neth. Sweden	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II 	287, 294
8529.10.20 Television antennas	Not applicable	None	100	U.S. China Japan	Canada Brazil Mexico	China Japan Taiwan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	295
8529.10.2090 Antenna reflectors and antenna parts for television	Used to manufacture antennas	None	100	U.S. China Japan	Canada Brazil Mexico	China Japan Taiwan		297

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.90.01 Printed circuit assemblies for television tuners	Manufacture of television receivers, television tuner cards for personal computers	None	100	Japan Malaysia Mexico	Mexico Brazil Japan	Japan Malaysia Mexico	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	304, 493
8529.90.03 Printed circuit boards and ceramic substrates with components assembled thereon for color television receivers; subassemblies containing one or more of such boards or substrates, except tuners or convergence assemblies, entered with components enumerated in additional U.S. note 4 to Ch. 85	Manufacture of television receivers	None	100	Mexico Singapore Malaysia	Mexico Canada Brazil	Mexico Singapore Philippines	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Outstanding antidumping duty order in place on certain imports from Korea and Taiwan (A-580-088 and A-583-009) 	304, 493
8529.90.06 Printed circuit boards and ceramic substrates with components assembled thereon for color television receivers; subassemblies containing one or more of such boards or substrates, except tuners or convergence assemblies, other than those entered with components enumerated in additional U.S. note 4 to Ch. 85	Manufacture of television receivers	None	100	Mexico Japan Singapore	Mexico Canada Brazil	Mexico Japan Singapore	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Korea and Taiwan (A-580-088 and A-583-009) 	304, 493

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.90.09 Printed circuit assemblies for television cameras	Manufacture of television cameras	None	100	Japan EU Israel	Germany Japan Canada	Japan France Israel	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	301, 304, 493
8529.90.13 Printed circuit assemblies for television apparatus other than for cameras, tuners, and other than those provided for in 8529.90.03 or 8529.90.06	Manufacture of television transmission and reception apparatus	None	100	U.S. Japan	Mexico Canada Brazil	Japan Philippines Canada		304, 493
8529.90.24 Printed circuit assemblies suitable for use solely or principally with the apparatus of headings 8525 to 8528 other than television apparatus; radar, radio navigational aid, or radio remote control apparatus; or articles of subheading 8525.10.90, 8525.20, 8525.40.40, 8527.90.40, or 8527.90.85	Manufacture of radio transmission and reception apparatus	None	100	Mexico Japan Canada	Japan Brazil Canada	Mexico Japan Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Japan (A-588-405) 	304, 493
8529.90.24(pt.) Parts and accessories for apparatus for transferring cinematographic films to video recordings	Manufacture of film digitizers	None	100	U.S. Mexico Japan	Japan Brazil Canada	Mexico Japan Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Japan (A-588-405) 	510
8529.90.29 Tuners for television receivers	Manufacture of television receivers	None	100	Mexico Malaysia Singapore	Mexico Brazil Japan	Mexico Malaysia Singapore	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	298, 304, 493

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.90.33 Subassemblies, except tuners or convergence assemblies, for color television receivers, specified in U.S. note 10 to Ch. 85 containing two or more printed circuit boards or ceramic substrates with components assembled thereon, entered with components enumerated in additional U.S. note 4 to Ch. 85	Manufacture of color television receivers	None	100	Mexico Japan EU	Mexico Canada Brazil	Mexico Japan Denmark	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Korea and Taiwan (A-580-008 and A-583-009) Some U.S. producers anticipate minimal impact 	304,493
8529.90.36 Subassemblies, except tuners or convergence assemblies, for color television receivers, specified in U.S. note 10 to Ch. 85, containing two or more printed circuit boards or ceramic substrates with components assembled thereon, other than with components enumerated in additional U.S. note 4 to Ch. 85	Manufacture of color television receivers	None	100	Taiwan Japan HK	Mexico Canada Brazil	Taiwan Japan HK	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Korea and Taiwan (A-580-008 and A-583-009) Some U.S. producers anticipate minimal impact 	304,493

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.90.39 Parts for television receivers specified in additional U.S. note 10 to Ch. 85, other than tuners, subassemblies for color television receivers containing two or more printed circuit boards or ceramic substrates with components assembled thereon, and printed circuit assemblies	Manufacture of color television receivers	None	100	China Japan Taiwan	Mexico Canada Brazil	China Japan Taiwan	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	304, 493
8529.90.43 Subassemblies, except tuners or convergence assemblies, for color television receivers, that are combinations of parts specified in additional U.S. note 10 to Ch. 85, containing two or more printed circuit boards or ceramic substrates with components assembled thereon, entered with components enumerated in additional U.S. note 4 to Ch. 85	Manufacture of color television receivers	None	100	Mexico Malaysia Japan	Mexico Canada Brazil	Mexico Malaysia Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Korea and Taiwan (A-580-008 and A-583-009) Some U.S. producers anticipate minimal impact 	304, 493

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.90.46 Subassemblies, except tuners or convergence assemblies, for color television receivers, that are combinations of parts specified in additional U.S. note 10 to Ch. 85, containing two or more printed circuit boards or ceramic substrates with components assembled thereon, other than those entered with components enumerated in additional U.S. note 4 to Ch. 85	Manufacture of color television receivers	None	100	EU Canada HK	Mexico Canada Brazil	Italy Canada UK	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Korea and Taiwan (A-580-008 and A-583-009) Some U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	304,493
8529.90.49 Combinations of parts, except tuners or convergence assemblies, for television receivers, specified in additional U.S. note 10 to Ch. 85, other than subassemblies for color television receivers, containing two or more printed circuit boards or ceramic substrates with components assembled thereon	Manufacture of color television receivers	None	100	U.S. Japan Denmark	Mexico Canada Brazil	Japan Denmark UK		304,493

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.90.53 Flat panel screen assemblies for the apparatus of subheadings 8528.12.62, 8528.12.64, 8528.12.68, 8528.12.72, 8528.21.55, 8528.21.60, 8528.21.65, 8528.21.70, 8528.30.62, 8528.30.64, 8582.30.66 and 8528.30.68	Manufacture of television receivers, video monitors, video projectors	None	100	Japan EU China	Canada Germany UK	Japan Germany Finland	<ul style="list-style-type: none"> Committee to Preserve American Color Television opposes inclusion in ITA-II 	299, 304, 493
8529.90.63 Parts of printed circuit assemblies for television cameras	Manufacture of television cameras	None	100	Japan EU Canada	Germany Japan Canada	Japan UK Canada		301, 304, 493
8529.90.69 Parts of printed circuit assemblies for television apparatus other than television cameras	Manufacture of television transmission and reception apparatus	None	100	U.S. Japan Mexico	Mexico Canada Brazil	Japan Mexico UK		304, 493
8529.90.77 Parts of printed circuit assemblies for articles of headings 8525 to 8528, other than for television apparatus; radar, radio navigational aid, or radio remote control apparatus; and articles of subheadings 8525.10.90, 8525.20, 8525.40.40, 8527.90.40, or 8527.90.85	Manufacture of radio transmission and reception apparatus	None	100	U.S. Philippines Taiwan	Mexico Canada Brazil	Philippines Taiwan Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Japan (A-588-405) 	304, 493

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.90.77(pt.) Parts and accessories for apparatus for transferring cinematographic films to video recordings	Manufacture of film digitizers	None	100	Japan Korea Taiwan	Mexico Canada Brazil	Philippines Taiwan Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order may be in effect on certain imports from Japan (A-588-405) 	510
8529.90.78 Mounted lenses suitable for use in, and entered separately from, closed-circuit television cameras, with or without attached electrical or non- electrical closed-circuit television camera connectors, and with or without attached motors	Manufacture of television cameras	None	100	Japan Mexico EU	Japan Brazil Canada	Japan Mexico UK	<ul style="list-style-type: none"> Current U.S. tariff is free 	301, 304, 493
8529.90.81 Parts of television cameras, other than mounted lenses suitable for use in closed- circuit television cameras not elsewhere specified or included	Manufacture of television cameras	None	100	Japan Korea EU	Germany Japan Canada	Japan Korea UK		301, 304, 493
8529.90.83 Parts of television apparatus, other than television cameras, not elsewhere specified or included	Manufacture of television transmission and reception apparatus	None	100	Philippines China EU	Mexico Canada Brazil	Philippines China France		301, 304, 493

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.90.87 Parts of articles of headings 8525 and 8527, other than of television apparatus, of cellular phones and of articles of subheading 8525.10.90, 8522.20, 8525.40.40, 8527.90.40 or 8527.90.85, not elsewhere specified or included	Manufacture of radio transmission and reception apparatus	None	100	U.S. Japan Korea	Japan Brazil Canada	Japan Mexico Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Japan (A-588-405) 	304, 493
8529.90.87(pt.) Parts and accessories for apparatus for transferring cinematographic films to video recordings	Manufacture of film digitizers	None	100	Japan Mexico Canada	Japan Brazil Canada	Japan Mexico Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order may be in effect on certain imports from Japan (A-588-405) 	510
8529.90.88 Subassemblies, except tuners or convergence assemblies, for color television receivers, containing two or more printed circuit boards or ceramic substrates with components assembled thereon, entered with components enumerated in additional U.S. note 4 to Ch. 85	Manufacture of television receivers	None	100	EU Japan Israel	Mexico Canada Brazil	Thailand Canada Taiwan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Korea and Taiwan (A-580-008 and A-583-009) Some producers support inclusion of these products in ITA-II U.S. tariff will be free in 1999 	304, 493

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.90.89 Subassemblies, except tuners or convergence assemblies, for color television receivers, containing two or more printed circuit boards or ceramic substrates with components assembled thereon, other than with components enumerated in additional U.S. note 4 to Ch. 85	Manufacture of television receivers	None	100	EU Japan Israel	Mexico Canada Brazil	France Japan UK	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Korea, Taiwan, and Japan (A-580-008, A-583-009, and A-588-405) Some producers support inclusion of these products in ITA-II 	304, 493
8529.90.93 Parts for television receivers other than subassemblies containing two or more printed circuit boards or ceramic substrates with components assembled thereon, and printed circuit assemblies, not specifically provided for	Manufacture of television receivers	None	100	Japan Mexico Taiwan	Mexico Canada Brazil	Japan Mexico Taiwan	<ul style="list-style-type: none"> Some producers support inclusion of these products in ITA-II 	303, 304, 493
8529.90.9345(pt.) Wirewound control coils for controlling the display linearity of the cathode-ray tube in a television receiver	Manufacture of television receivers and video monitors	None	100	Mexico Japan EU	None	Mexico Japan Portugal	<ul style="list-style-type: none"> No U.S. production identified 	302

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8540.11.10 Color cathode-ray television picture tubes, including video monitor cathode-ray tubes, non-high definition, non- projection, having a video display diagonal exceeding 35.56 cm	Color television receivers Color video monitors	None	100	EU Japan U.S.	Mexico Brazil	Mexico Italy Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Taiwan, Korea, Canada, Japan, and Singapore (A-583-009, A-580-008, A-580-605, A-122-605, A-588-609, and A-559-601) U.S. producers anticipate adverse impact Current U.S. tariff is 15 percent and was not reduced as a result of the Uruguay Round negotiations Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	310
8540.11.24 Color cathode-ray television picture tubes, including video monitor cathode-ray tubes, non-high definition, non- projection, having a video display diagonal not exceeding 33.02 cm	Color television receivers Color video monitors	None	100	Japan Malaysia Korea	None	Japan Malaysia Korea	<ul style="list-style-type: none"> No U.S. production identified Current U.S. tariff is 9 percent, and will be 7.5 percent in 1999 Outstanding antidumping duty order in place on certain imports from Taiwan, Korea, Canada, Japan, and Singapore (A-583-009, A-580-008, A-580-605, A-122-605, A-588-609, and A-559-601) Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	310

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8540.11.28 Color cathode-ray television picture tubes, including video monitor cathode-ray tubes, non-high definition, non- projection, having a video display diagonal exceeding 33.02 cm but not exceeding 35.56 cm	Color television receivers Color video monitors	None	100	Japan Malaysia Korea	None	Malaysia Japan Mexico	<ul style="list-style-type: none"> • No U.S. production identified • Current U.S. tariff is 15 percent and was not reduced as a result of the Uruguay Round negotiations • Outstanding antidumping duty order in place on certain imports from Taiwan, Korea, Canada, Japan, and Singapore (A-583-009, A-580-008, A-580-605, A-122-605, A-588-609, and A-559-601) • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	310

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8540.11.30 Color cathode-ray television picture tubes, including video monitor cathode-ray tubes, high definition, having a video display diagonal exceeding 35.56 cm	Color television receivers Color video monitors	None	100	U.S. Japan Korea	Mexico Brazil HK	Japan Korea	<ul style="list-style-type: none"> • U.S. producers anticipate adverse impact • Outstanding antidumping duty order in place on certain imports from Taiwan, Korea, Canada, Japan, and Singapore (A-583-009, A-580-008, A-580-605, A-122-605, A-588-609, and A-559-601) • Current U.S. tariff is 15 percent and was not reduced as a result of the Uruguay Round negotiations • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	310
8540.11.44 Color cathode-ray television picture tubes, including video monitor cathode-ray tubes, high definition, having a video display diagonal not exceeding 33.02 cm	Color television receivers Color video monitors	None	100	Canada EU Japan	None	Canada	<ul style="list-style-type: none"> • No U.S. production identified • Current U.S. tariff is 9 percent, and will be 7.5 percent in 1999 • Outstanding antidumping duty order in place on certain imports from Taiwan, Korea, Canada, Japan, and Singapore (A-583-009, A-580-008, A-580-605, A-122-605, A-588-609, and A-559-601) • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	310

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8540.11.48 Color cathode-ray television picture tubes, including video monitor cathode-ray tubes, high definition, having a video display diagonal exceeding 33.02 cm but not exceeding 35.56 cm	Color television receivers Color video monitors	None	100	Japan Mexico Taiwan	None	Japan Mexico	<ul style="list-style-type: none"> No U.S. production identified Current U.S. tariff is 15 percent and was not reduced as a result of the Uruguay Round negotiations Outstanding antidumping duty order in place on certain imports from Taiwan, Korea, Canada, Japan, and Singapore (A-583-009, A-580-008, A-580-605, A-122-605, A-588-609, and A-559-601) Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	310
8540.11.50 Color cathode-ray television picture tubes, including video monitor cathode-ray tubes, other than high definition, and other than non-projection	Color television receivers Color video monitors	None	100	Japan Mexico Taiwan	Mexico Brazil HK	Mexico Japan Canada	<ul style="list-style-type: none"> Current U.S. tariff is 15 percent and was not reduced as a result of the Uruguay Round negotiations Outstanding antidumping duty order in place on certain imports from Taiwan, Korea, Canada, Japan, and Singapore (A-583-009, A-580-008, A-580-605, A-122-605, A-588-609, and A-559-601) Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	310

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8540.12.10 Black and white or other non-high definition monochrome cathode-ray television picture tubes, including video monitor cathode-ray tubes, having a straight line dimension across the faceplate greater than 29 cm but having no straight line dimension across the faceplate that exceeds 42 cm	Monochrome video monitors	None	100	India Mexico China	None	India Mexico China	<ul style="list-style-type: none"> No U.S. production identified Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	311
8540.12.50 Black and white or other non-high definition monochrome cathode-ray television picture tubes, including video monitor cathode-ray tubes, having a straight line dimension across the faceplate 29 cm or less or greater than 42 cm	Monochrome video monitors	None	100	Mexico Japan India	None	Mexico Japan India	<ul style="list-style-type: none"> No U.S. production identified Committee to Preserve American Color Television opposes inclusion in ITA-II Clinton Electronics Corporation opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	311
8540.20.20 Cathode-ray television camera tubes, image converters with intensifiers, and other photo cathode tubes	Medical/diagnostic equipment Light-intensifying goggles	None	100	U.S. Korea EU	Mexico Japan Australia	Korea UK Japan	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Current U.S. tariff is 6 percent and was not reduced as a result of Uruguay Round negotiations 	312
8540.20.40 Television camera tubes, image converters and intensifiers, other than cathode-ray tubes	Medical/diagnostic equipment Light-intensifying goggles	None	100	U.S. EU Taiwan	Japan Neth. France	France Germany Taiwan	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact 	312

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8540.40.00 Color data/graphic display tubes, with a phosphor dot screen pitch smaller than 0.4 mm	Computer display monitors Medical imaging displays Industrial displays	None	100	Japan Korea U.S.	Mexico UK HK	Japan Korea Singapore	<ul style="list-style-type: none"> • A small U.S. producer anticipates adverse impact • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	313
8540.50.00 Black and white or monochrome data/graphic display tubes	Computer display monitors Medical imaging displays Industrial displays	None	100	Japan EU China	Japan UK Neth.	Japan UK China	<ul style="list-style-type: none"> • Some U.S. producers anticipate adverse impact • Clinton Electronics Corporation opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	314
8540.60.00 Cathode-ray tubes other than television picture tubes, television camera tubes, and data/graphic display tubes	Industrial display devices not requiring high resolution	None	100	Japan EU China	UK Korea Japan	Japan Germany UK	<ul style="list-style-type: none"> • Committee to Preserve American Color Television opposes inclusion in ITA-II • Clinton Electronics Corporation opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	315
8540.91.15 Front panel assemblies for cathode-ray tubes	Television picture tubes Industrial and military cathode-ray tubes	None	100	U.S. EU Japan	Mexico Italy UK	Germany Japan Taiwan	<ul style="list-style-type: none"> • U.S. producers anticipate adverse impact • Committee to Preserve American Color Television opposes inclusion in ITA-II • Techneglas, Inc. opposes inclusion in ITA-II 	321, 322

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8540.91.20 Deflection coils for cathode-ray tubes	Television picture tubes Industrial and military cathode-ray tubes	None	100	Mexico Japan EU	Mexico Korea Japan	Mexico Japan UK	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	321, 324
8540.91.50 Parts for cathode-ray tubes other than front panel assemblies and deflection coils	Television picture tubes Industrial and military cathode-ray tubes	None	100	Japan Mexico Taiwan	Mexico Italy UK	Japan Mexico Taiwan	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Committee to Preserve American Color Television opposes inclusion in ITA-II Techneglas, Inc. opposes inclusion in ITA-II 	321, 323, 324
8543.89.9695(pt.) Computer-based video and audio editing apparatus, not specifically provided for	Not applicable	None	100	China Japan Canada	Canada Korea Japan	China Japan Canada		490
9002.11.60 Mounted objective lenses suitable for use in, and entered separately from, closed-circuit television cameras with or without attached electrical or non-electrical closed-circuit television camera connectors, and with or without attached motors other than objective lenses	Closed-circuit television cameras	None	100	Japan Korea UK	Mexico Germany UK	Japan Korea UK	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Japan (A-588-819) Small U.S. manufacturers may be adversely affected 	499

Table 2-2
Consumer electronics for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9002.90.85 Mounted lenses other than objective lenses or filters suitable for use in, and entered separately from, closed-circuit television cameras with or without attached electrical or non-electrical closed-circuit television camera connectors, and with or without attached motors other than objective lenses	Closed-circuit television cameras	None	100	UK Japan Denmark	Norway Japan UK	UK Japan Denmark	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	499

CHAPTER 3

Office Machines and Photographic, Navigational Aid, and Scientific Apparatus

Danielle Kriz

Introduction

This chapter covers various finished information technology (IT) goods and their parts, other than consumer electronics, proposed for inclusion in the ITA-II process.³² The products in this chapter have been divided into the groupings based on principal functions shown in table 3-1.

This chapter also covers parts and accessories of many of these items. The majority of the items discussed in this chapter are used exclusively in IT applications as defined for the purposes of this report. Exceptions include certain subassemblies of radio remote control apparatus used in toys or garage door openers, coin or bill acceptors used in vending machines and in the banking and gaming industries, and thermostats and manostats that control temperature and pressure. Table 3-2, at the end of this chapter, lists all the products covered in this chapter, describes the products and their uses, identifies major producing countries and U.S. trading partners, and provides trade-related information gathered from U.S. industry and government sources.

Table 3-1

Major product groupings: Office machines and photographic, navigational aid, and scientific apparatus

Group	Principal products/uses
Office machines	<ul style="list-style-type: none">• Photocopiers, automatic data processing (ADP)-supported self-service and banking machines other than automatic teller machines (ATMs), and parts of word processing machines and typewriters
Photographic equipment	<ul style="list-style-type: none">• Advanced photo system (APS) cameras and developing equipment, motion imaging workstations
Radar, navigational aid, and remote control apparatus	<ul style="list-style-type: none">• Vessel traffic systems, air traffic control systems, car navigation systems, radio navigational aid and remote control apparatus, compasses
Scientific, testing, and measuring equipment	<ul style="list-style-type: none">• Microscopes, oscilloscopes, multimeters, profile projectors, anechoic chamber kits
Other products	<ul style="list-style-type: none">• Communications satellites, antennas, coin and bill acceptors containing optical elements, certain medical equipment

Source: Compiled by USITC staff.

³² Consumer electronics are discussed separately in chapter 2.

Trade Patterns and Market Opportunities

Total 1997 U.S. imports of the products covered in this chapter were valued at approximately \$10.3 billion, most of which were office machines, photographic equipment, and items such as medical goods. Japan supplied \$3.5 billion, or slightly more than one third, of U.S. imports of the items in this chapter, while imports from Germany were valued at \$922 million. China,³³ Canada, Mexico,³⁴ and the United Kingdom each supplied between \$600 million and \$700 million of U.S. imports of these items. Corresponding 1997 U.S. exports were approximately \$10.4 billion, most of which were of radar, navigational aid, and remote control apparatus; scientific, testing, and measuring equipment; and communications satellites and their parts, industries in which the United States is a global leader. Japan, Canada, and Germany were the top three U.S. export markets for the products in this chapter. U.S. exports to these countries were approximately \$1.5 billion, \$978 million, and \$768 million, respectively.³⁵ This trade data represents total imports and exports in the 8- or 10-digit *HTS* categories in which the items are classified. However, since many items in this chapter account for small subsets of the 8- or 10-digit *HTS* categories, these trade figures are overstated.

Most manufacturers of the products discussed in this chapter encounter high tariffs in many ITA signatories, particularly in developing countries. Most tariffs for these items in countries such as Singapore, the Philippines, Malaysia, Poland, and Korea range from 5 to 20 percent, while rates in Iceland, Indonesia, Israel, Romania, Thailand, and Turkey range from 20 to 40 percent.³⁶ Thus, tariff elimination in these countries would be expected to increase market access opportunities for both U.S. and foreign producers. Many of these countries, especially in Asia, are growing markets for items such as measuring and testing equipment, medical equipment, and navigational aid apparatus. As a major producer of these items, the United States should benefit from elimination of these countries' tariffs. The EU and Japan, competitive global producers of navigational aid apparatus and certain testing equipment, also would realize increased opportunities in these ITA signatories. However, market opportunities could be mitigated if the Asian financial situation slows purchases of such high-technology products in the region.

The United States, Japan, Canada, and the EU are also large markets for many items discussed in this chapter. However, Japan's tariffs on most of these products are already zero. While many ITA participants might realize greater access to the Canadian market if Canada's tariffs on these products, most of which are scheduled to range from zero to around 7 percent in 1999, are eliminated, the United States would not because Canadian tariffs on most U.S. products are already free under the U.S.-Canada Free Trade Agreement (FTA) and the NAFTA. Many global producers would have increased access to the EU market if the EU's tariffs, which range up to 6.7 percent for the products in this chapter, are eliminated, particularly if additional countries join the EU in the future. Finally, although most U.S. tariffs on the items in this chapter are relatively low, U.S. tariffs on items such as microscopes are as high as 7.2 percent. Elimination of U.S. tariffs should result in increased market opportunities for foreign producers of selected items in this chapter.

³³ China is not an ITA signatory.

³⁴ Mexico is not an ITA signatory.

³⁵ All trade data are based on official statistics of the U.S. Department of Commerce (USDOC).

³⁶ Unless otherwise indicated, tariffs cited in this report are the final Uruguay Round concession rates which enter into effect Jan. 1, 1999. *Most-Favoured Nation Tariff Schedules, Annexes to Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations (Marrakesh Protocol)*, Apr. 15, 1994.

Office machines

With the exception of electrostatic photocopiers, the United States is not a major producer of most office machines and parts proposed for inclusion in the ITA. Total 1997 U.S. imports of the office machines and parts proposed for inclusion in the ITA were valued at close to \$3.0 billion, with Japan, China, and the Netherlands supplying over 75 percent of these imports.³⁷ In contrast, the value of 1997 U.S. exports of the same categories was much lower, approximately \$539 million, and the three largest U.S. export markets for these items were Mexico, Canada, and Japan.³⁸

Opportunities for the U.S. office machine industry arising from tariff elimination are expected to be negligible due in part to the small size of the U.S. industry. In addition, the top three markets for U.S. exports of office machines will not be affected by ITA tariff eliminations. Mexico is not an ITA signatory, Canadian tariffs on U.S.-produced office machines have been eliminated under the U.S.-Canada FTA, and Japanese tariffs on the office machines in question are already zero. While the United States exports some office machines to the EU, the EU's tariffs on most of the office machines under consideration for the ITA-II process are not high, ranging from 2 to 3 percent. The exception is electrostatic photocopiers, on which the EU levies a 6-percent tariff. As the United States is competitive in the production of these photocopiers, U.S. producers could benefit from elimination of this EU tariff; the Netherlands, an EU distribution center for a major U.S. producer, was the third largest export destination for U.S.-produced electrostatic photocopiers in 1997. There is little, if any, U.S. production of the other photocopiers proposed for inclusion in the ITA. U.S. producers of office machines and their parts have not cited any nontariff barriers to sales in ITA- participating markets.³⁹ However, in the Philippines, color photocopying equipment is subject to certain import regulations.⁴⁰

Foreign producers of the office machines under consideration, such as Japan, Malaysia, and Taiwan, would be expected to realize increased market opportunities from tariff elimination in a variety of ITA signatories. With the exception of Japan, ITA trading partners levy tariffs on imports of at least some if not all of the office machines discussed in this chapter. In addition, foreign office machine producers should benefit slightly from the elimination of U.S. office machine tariffs, most of which will range from 1.6 to 2 percent in 1999, except for tariffs on electrostatic photocopiers, which will be 3.7 percent. The Business Technology Association supports the inclusion of all photocopiers in the ITA.⁴¹ However, Xerox, the sole U.S. producer of electrostatic photocopiers, opposes their inclusion. Xerox maintains that eliminating the 3.7-percent U.S. tariff will expose its U.S. manufacturing operations to injury from low-priced imports which could be intensified by the Asian financial situation if Asian producers increase exports to raise profits.⁴²

³⁷ Imports from Japan were valued at \$1.7 billion, imports from China at \$451 million, and imports from the Netherlands at \$182 million. However, the import and export values overstate the true value of trade in the office machines discussed in this chapter. While the photocopiers, their parts, and the parts of typewriters and word processing machines comprise the entire 8-digit *HTS* categories in which they are classified, the ADP-supported machines comprise only part of their 8-digit *HTS* categories.

³⁸ U.S. exports to Mexico were \$116 million, to Canada, \$107 million, and to Japan, \$40 million.

³⁹ U.S. office machine industry representatives, telephone interviews by USITC staff, Feb.- Mar. 1998.

⁴⁰ Office of the United States Trade Representative (USTR), *National Trade Estimate (NTE) Report on Foreign Trade Barriers*, 1998, p. 328.

⁴¹ Robert C. Goldberg, General Counsel, and Jordan R. Labkon, Staff Attorney, Business Technology Association, testimony at USITC hearing on inv. 332-390, Mar. 19, 1998.

⁴² Xerox also states that electrostatic photocopiers are not IT products. George W. Thompson, Neville, Peterson, and Williams, counsel to Xerox Corporation, written submissions to USITC on inv. 332-390, Mar. 18 and Mar. 24, 1998.

Photographic equipment

The photographic equipment proposed for inclusion in the ITA consists mostly of advanced photo system (APS) cameras and their photo-developing apparatus (mini-labs). Industry sources report that there are no significant producers of APS cameras or APS mini-labs in the United States.⁴³ However, the United States does produce motion-imaging workstations and their parts, as well as parts of copy-print workstations, which also were proposed for inclusion. U.S. imports of the photographic equipment proposed for inclusion in the ITA were valued at approximately \$750 million in 1997. Nearly 40 percent of U.S. imports of this equipment came from Japan, while other large import sources were Switzerland and Malaysia. U.S. 1997 exports of the photographic equipment proposed for the ITA-II process were approximately \$213 million.⁴⁴ The top three markets for U.S. exports of photographic equipment were Japan, Germany, and France.⁴⁵

Because of the limited U.S. production of APS cameras or mini-labs, benefits to U.S. producers of foreign tariff elimination are expected to be minimal. However, the market for these items is growing, particularly in developed photographic markets such as the United States, Japan, the EU, and Canada. U.S. tariffs for APS cameras and mini-labs range from free to 4 percent; Japan's rates are zero; the EU's range from zero to 4.2 percent; and Canada's range from zero to 5 percent. The elimination of these countries' remaining tariffs could increase market opportunities for major producers of this equipment which include Japan, Indonesia, and Mexico.⁴⁶ U.S. producers of motion-imaging workstations and parts as well as parts of copy print workstations cite tariffs as the largest barriers to U.S. exports, particularly in India, where tariffs on these products are approximately 16.5 percent, and the EU, where tariffs are 2.7 percent; thus, including these items in the ITA would be expected to benefit U.S. producers.⁴⁷ U.S. producers report no nontariff barriers to U.S. photographic equipment exports in ITA signatories.⁴⁸

Radar, navigational aid, and remote control apparatus

The United States is a major world supplier of many of the advanced radar, navigational aid, and remote control apparatus and systems under consideration for addition to the ITA; while, Japan and the EU are becoming increasingly competitive in this industry. U.S. imports of the radar, navigational aid, and remote control apparatus under consideration for the ITA-II process were valued at \$898 million in 1997, with Canada, Mexico, and Japan the leading import sources, accounting for nearly 50 percent of U.S. imports. U.S. exports of the same items were much greater, valued at \$1.9 billion in 1997.⁴⁹ The top U.S. export markets were Japan, Canada, and Taiwan.

Removal of tariffs on these items should benefit globally competitive U.S. producers as well as

⁴³ Industry representative, e-mail correspondence to USITC staff, Mar. 24, 1998.

⁴⁴ These import and export values overstate the true value of trade in the photographic equipment covered in this chapter. All of the APS cameras, developing equipment, motion imaging workstations, and parts comprise only part of the 8- and 10-digit *HTS* categories in which they are classified.

⁴⁵ 1997 U.S. exports to Japan were valued at \$34 million, exports to Germany at \$30 million, and exports to France at \$15 million.

⁴⁶ U.S. photographic industry representative, fax to USITC staff, Mar. 13, 1998.

⁴⁷ U.S. photographic industry representative, e-mail correspondence to USITC staff, Apr. 2, 1998.

⁴⁸ U.S. photographic industry representative, e-mail correspondence to and telephone interviews by USITC staff, Mar.-Apr. 1998.

⁴⁹ These figures understate U.S. trade in these items. While many of the navigational aid items proposed for the ITA-II process comprise entire 8-digit *HTS* categories, most of the apparatus and systems for use by ships, other vessels, and offshore platforms comprise only part of these categories.

producers in Japan and the EU. One U.S. producer of radio navigational aid apparatus has cited tariffs in the EU and various Asian countries as a particular concern.⁵⁰ EU tariffs on radio navigational aid apparatus range from zero to 3.7 percent while tariffs are 15 percent in Australia, 30 percent in Thailand, 40 percent in Indonesia, 13 percent in Korea, 15 percent in Malaysia, and 10 percent in the Philippines; Taiwan's tariffs range from zero to 7 percent.⁵¹ The United States is the world's largest market for navigation apparatus. U.S. tariffs on most navigational aid apparatus will range from zero to 3.2 percent in 1999.⁵² Thus, producers of radar, navigational aid, and remote control apparatus, particularly in the United States, Japan, and the EU, may realize some increased market opportunities in various ITA signatories if this equipment is included in the ITA.

Although radar, navigational aid, and remote control apparatus manufactured in the United States has long been competitive in global markets, U.S. producers are concerned about several nontariff barriers affecting sales of their equipment in ITA signatories. U.S. producers state that some EU member countries provide various subsidies and assistance to their shipbuilding and repair industry, which is a major consumer of radar and other navigational apparatus. These subsidies allegedly have gone to restructuring shipbuilding industries, for operations and investment, and have been in the forms of export credits and other indirect subsidies. U.S. industry representatives maintain that EU manufacturers receiving shipbuilding-related subsidies are encouraged to obtain the ships' navigational apparatus from domestic sources, which diminishes sales opportunities for U.S. producers. Korea, Norway, and Japan also reportedly provide subsidies and other assistance to their shipbuilding industries. In addition, Japan allegedly provides various incentives to facilitate development of its aerospace industry, including government loan subsidies and preferential loans for the development and research of aircraft, including navigational apparatus. U.S. producers anticipate increased sales of their navigational apparatus in these countries if the subsidies and other assistance are removed.⁵³

Scientific, testing, and measuring equipment

With the exception of microscopes, the United States is a major producer of the scientific, measuring, and testing equipment proposed for inclusion in the ITA. U.S. 1997 imports of the items in this category were valued at \$2.1 billion, with over 50 percent of U.S. imports coming from Japan, Germany, and the United Kingdom. U.S. exports of the same items were valued at approximately \$3.8 billion, and Japan, Canada, and Korea were the top three U.S. export destinations.⁵⁴

Optical and electron microscopes and their parts and accessories have been proposed for inclusion in the ITA. Because U.S. production of microscopes is small, the benefits of foreign tariff reductions to the U.S. microscope industry in terms of exports, sales, and profits is expected to be negligible at best.⁵⁵ U.S. industry has cited discriminatory purchasing by the governments of Korea and Taiwan, which allegedly have shown preference for domestically produced microscopes, accessories, and parts, as nontariff barriers to U.S.

⁵⁰ U.S. navigation apparatus industry representative, fax to USITC staff, Mar. 20, 1998.

⁵¹ Taiwan is not a member of the WTO and therefore its tariff rates are unbound. APEC Tariff Database, found at <http://www.apectariff.org>, retrieved Apr. 10, 1998.

⁵² The U.S. tariff on *HTS* 8526.92.00, radio remote control apparatus for air traffic control systems, will be 4.9 percent in 1999.

⁵³ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998. For more information, see U.S. International Trade Commission, *Industry and Trade Summary: Radar and Certain Radio Apparatus*, Nov. 1996 (Pub. No. 3005).

⁵⁴ These values should accurately reflect U.S. trade in this category as all of the items, with the exception of electron microscopes and their parts, comprise the entire 8- or 10-digit *HTS* categories in which they are classified.

⁵⁵ However, an official at the USDOC has stated that there remains a possibility that some smaller, individual producers of microscopes and associated optical elements could be adversely affected by the elimination of U.S. tariffs on microscopes. USDOC official, conversations with USITC staff, Jan.-Mar. 1998.

microscope exports. However, the removal of these nontariff barriers would likely result in minimal positive effects for U.S. producers due to limited U.S. production and because most microscope sales in those countries are to the private sector.⁵⁶

In contrast, Japanese, German, and Austrian microscope producers, and to a lesser extent producers in Korea, Taiwan, and China, that account for much of the global production of microscopes, would likely benefit from fairly significant tariff reductions in the United States and other ITA markets.⁵⁷ U.S. tariffs on microscopes and parts range from 3.9 to 7.2 percent while the EU's rates range from 3.7 to 6.7 percent; other high tariff rates are in Indonesia, 40 percent; Korea, 13 percent; the Philippines, 20 percent; Iceland, 24 percent; Romania, 21 percent; Australia, 6 percent; and Taiwan, 5 percent.⁵⁸ Demand for all microscopes is growing worldwide, particularly in connection with rapidly growing high technology sectors such as the biotechnology industries in the United States, the EU, and Japan. Demand for electron microscopes is expected to grow particularly fast in semiconductor and electronic component manufacturing countries such as the United States, Japan, and increasingly Korea, Malaysia, Taiwan, and Thailand.⁵⁹ Any reduction in tariff and nontariff barriers in any of these countries will likely complement or accelerate market access opportunities.

Other measuring and testing equipment proposed for inclusion in the ITA include apparatus for measuring and checking gas, smoke, radiation, or voltage, exposure meters and microtomes, machines for balancing mechanical parts, test benches, profile projectors, optical coordinate-measuring machines, thermostats, and manostats. The United States is a leading global producer of measuring and testing equipment and U.S. producers have cited high tariffs in India, the Czech Republic, Slovakia, and Thailand as barriers to exports for many of these items.⁶⁰ Tariffs in India on measuring and testing equipment range from zero to 30 percent, in both the Czech Republic and Slovakia tariffs range from 1.2 to 7 percent, and in Thailand rates are 30 percent. Tariff elimination under the ITA would benefit U.S. producers as well as producers in the United Kingdom and Japan, the other major producing countries of these items.

U.S. industry representatives also have identified nontariff barriers that affect exports of measuring and checking equipment to ITA markets. These include the EU's 20 percent value-added tax (VAT), India's allegedly cumbersome customs procedures, and a lack of adequate intellectual property protection in Taiwan, Hong Kong, India, and Japan which can allow for reverse engineering and patent infringement of certain instruments.⁶¹ Industry representatives state that if these nontariff barriers were removed, their market opportunities would increase.⁶²

Leica, Inc., a U.S. microscope producer, has raised an issue regarding microscopes included in the original ITA. Many kinds of semiconductor manufacturing equipment, including semiconductor- inspecting microscopes (SIMs), were included in the original ITA. However, Leica maintains that certain SIMs inadvertently have been excluded from ITA coverage due to the wording chosen to describe them. Leica states that the ITA currently covers only optical stereoscopic and photomicrographic microscopes that are "fitted with equipment specifically designed for the handling and transport of semiconductor wafers or reticles." Leica

⁵⁶ U.S. microscope industry representatives, telephone interviews by USITC staff, Mar. 1998.

⁵⁷ Ibid.

⁵⁸ Although WTO members, Malaysia and Thailand do not appear to have bound their tariffs on microscopes. *Most-Favoured Nation Tariff Schedules, Annexes to Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations (Marrakesh Protocol)*, Apr. 15, 1994. Taiwan's tariff rates are unbound because it is not a member of the WTO.

⁵⁹ Electron microscopes are used by the semiconductor industry to see small features on wafers which may be considered defects or to measure critical dimensions of structures to assure proper operation.

⁶⁰ U.S. measuring and testing equipment industry representative, fax to USITC staff, Mar. 1998.

⁶¹ Ibid.

⁶² Ibid.

maintains that “SIMs may or may not be stereoscopic, photomicrographic, or fitted with robotic handling equipment.” Leica has provided to the United States Trade Representative (USTR) and representatives of the EU’s Directorate General III (DG-III) suggestions for amending the *HTS* language to include all microscopes used for semiconductor inspection.⁶³ However, in the event that certain microscopes and parts proposed for inclusion in the ITA are added to the agreement, all SIMs would be covered.⁶⁴

Other items

U.S. imports of the remaining items discussed in this chapter, medical equipment, certain antennas, communications satellites and their parts, sound-signaling apparatus, and certain coin and bill changers, were valued at \$3.5 billion in 1997. The top three sources of U.S. imports of these items were Japan, Germany, and Mexico. U.S. exports were valued at close to \$4.0 billion; the top three export markets were Japan, French Guiana, which is the top export destination for U.S.-produced communications satellites, and Germany.⁶⁵

The United States is a major global producer of medical equipment. U.S. tariffs on medical equipment are scheduled to go to zero on January 1, 1999, under a Uruguay Round “zero for zero” initiative, as are tariffs of major trading partners such as Japan, the EU, and Canada.⁶⁶ While no new market opportunities would therefore be realized from ITA tariff reductions in these markets, U.S. medical goods producers, as well as major producers in Japan and Germany, would be expected to benefit from tariff elimination by other trading partners in the ITA, particularly in rapidly developing markets in Asia such as Korea, Thailand, and Taiwan, where tariffs are relatively high.⁶⁷ Tariffs on medical equipment are 8 percent in Korea and 20 percent in Thailand; in Taiwan, while not bound, tariffs range from zero to 5 percent. China is also a rapidly developing market for these products but is not an ITA signatory.

Two significant nontariff trade barriers encountered by U.S. medical equipment producers are discriminatory standards, certification, testing, and approval systems and discriminatory pricing of foreign medical devices. Korea promulgated new, extensive product test requirements in January 1995⁶⁸ which appear to require U.S. exporters to share commercially sensitive information with local Korean industry trade groups. According to U.S. industry representatives, this extensive product testing can lead to increased costs and a possible loss of competitive advantage if proprietary information is disclosed. Taiwan’s new national health insurance system, in some instances, has reimbursed doctors less money for procedures undertaken using foreign-made medical goods than for procedures using similar domestically produced medical goods, thus

⁶³ Gunther von Conrad and Robert E. Burke, Barnes, Richardson, & Colbern, counsel for Leica, letter to Galway Johnson (DG-III), Joachim Graminsky (DG-III), Barbara Chatten (USTR), and Matt Rohde (USTR), Dec. 24, 1997. Leica suggested either creating “principal use” or “equipment requirements” *HTS* categories to cover all SIMs. However, the U.S. Customs Service has maintained that enforcing *HTS* language based on “end-use” of products is very difficult.

⁶⁴ The U.S. *HTS* categories in which Leica’s SIMs and parts are classified are 9011.10.40, 9011.10.80, 9011.20.40, 9011.20.80, 9011.80.00, and 9011.90.00, all of which have been proposed for inclusion in the ITA-II process.

⁶⁵ These figures only slightly overstate U.S. trade in these items. All of these items, with the exception of the coin and bill acceptors, comprise the entire 8- or 10- digit *HTS* categories in which they are classified.

⁶⁶ Hong Kong and Singapore also participated in this Uruguay Round “zero for zero” initiative.

⁶⁷ U.S. medical equipment industry representatives, personal and telephone interviews by USITC staff, Jan.-Mar. 1998; Health Industry Manufacturers Association (HIMA), “Despite Asian economic turmoil, positive figures forecast for industry in 1998,” news release, Jan. 15, 1998, pp. 1-2; and HIMA, *The 1997 Global Medical Technology Update: The Challenges Facing U.S. Industry and Policy Makers* (Washington, DC: HIMA, 1997), pp. 1-235.

⁶⁸ These were promulgated under the *Korean Law for Regulating Medical Devices*.

conferring a cost and price advantage for domestic devices.⁶⁹ Another ITA signatory, the Philippines, requires local inspection of medical equipment for standards compliance.⁷⁰ Finally, Japan's prefectural and municipal hospitals are obligated by law to procure the lowest-priced bids, hindering the ability of U.S. producers, who tend to make costlier, high-performance products with special features, to sell in this portion of the Japanese market.⁷¹ Regulatory barriers and a non-transparent reimbursement system also allegedly impede U.S. producers' sales of medical equipment in Japan.⁷² U.S. firms state that eliminating these countries' tariffs, and addressing government regulatory, reimbursement, and procurement measures, could result in increased market access for U.S. medical equipment producers.

One U.S. producer of X-ray film reports that high tariffs of certain ITA signatories are its largest barrier to exports.⁷³ India's 40 percent tariffs were of particular concern to another U.S. producer. This producer also cited government procurement policies in India and labeling and registration requirements in Japan as significant nontariff barriers to U.S. exports.⁷⁴ Kodak, a major producer of X-ray film, has stated that the U.S. industry is import sensitive and opposes the inclusion of this film in the ITA.⁷⁵ U.S. tariffs on X-ray film will be 3.7 percent in 1999.

The United States is a major producer and exporter of communications satellites and their parts. However, communications satellites generally are shipped to a limited number of launch sites rather than to the purchasing country; nearly 85 percent of 1997 U.S. communications satellite exports went to French Guiana, Kazakhstan, and China, which are not participants in the ITA.⁷⁶ As a result, while U.S. satellite producers support the inclusion of satellites in the ITA,⁷⁷ the benefits of tariff elimination by ITA signatories are expected to be modest. In contrast, parts of communications satellites are shipped to many countries and the benefits of tariff elimination for U.S. producers could be greater. The top three 1997 export markets for U.S. communications satellite parts were Canada, Germany, and the United Kingdom, all ITA participants.⁷⁸ While Canadian tariffs on U.S. exports of these parts are zero under the FTA, the elimination of the EU's common external tariffs of zero to 2.7 percent would be expected to benefit U.S. producers. U.S. industry representatives contacted for this study did not identify any nontariff barriers to U.S. satellite or parts exports in any of the ITA signatories.⁷⁹ However, the USTR has cited government procurement patterns in Japan and Korea that discriminate against foreign-made satellites as barriers to U.S. satellite producers in those markets.⁸⁰

Finally, U.S. firms are dominant global producers of coin and bill acceptors, with competition only from a few select Japanese producers. Due to their global competitiveness, U.S. producers believe that tariff reductions will increase their market access opportunities in many of the ITA signatories. However, the lack of intellectual property protection in Taiwan, has allegedly allowed Taiwan competitors to reverse-engineer U.S.

⁶⁹ U.S. medical equipment industry representatives, personal and telephone interviews by USITC staff, Jan.-Mar. 1998.

⁷⁰ USTR, *NTE*, p. 330.

⁷¹ USTR, *NTE*, p. 213.

⁷² USTR, *NTE*, p. 237.

⁷³ U.S. industry representative, e-mail correspondence to USITC staff, Apr. 6, 1998.

⁷⁴ U.S. industry representative, fax to USITC staff, Apr. 17, 1998.

⁷⁵ Christopher Padilla, Eastman Kodak Co., testimony at USITC hearing on inv. 332-390, Mar. 19, 1998.

⁷⁶ U.S. 1997 communications satellite exports totaled \$819 million, with exports to French Guiana valued at \$469 million, exports to Kazakhstan at \$131 million, and exports to China at \$86 million.

⁷⁷ U.S. satellite industry representatives, telephone interviews by USITC staff, Mar. 1998.

⁷⁸ U.S. 1997 exports of communications satellites parts were \$89 million. Exports to Canada were \$16 million, to Germany, \$16 million, and to the United Kingdom, \$8.0 million.

⁷⁹ U.S. satellite industry representatives, telephone interviews by USITC staff, Mar. 1998.

⁸⁰ USTR, *NTE*, pp. 214 and 260.

products, thereby creating a barrier to U.S. exports.⁸¹

⁸¹ U.S. coin and bill changing industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3701.10.0030 X-ray plates and film in the flat, sensitized, unexposed, of any material other than paper, paperboard, or textiles for medical uses other than dental	Medical X-ray equipment	None	100	U.S. EU Japan	Japan Belgium Canada	Japan Italy Belgium	• Kodak opposes inclusion in ITA- II	2
3702.10.0030 X-ray film in rolls, sensitized, unexposed, of any material other than paper, paperboard or textiles, for medical uses other than dental	Medical X-ray equipment	None	100	U.S. Japan EU	Japan Mexico Sweden	Belgium Italy Japan	• Kodak opposes inclusion in ITA-II	3
8470.90.00(pt.) ADP supported self-service machines, such as ticket dispensers	Not applicable	None	100	UK Switz. Germany	Canada Mexico Japan	UK Switz. Germany	• Current U.S. tariff is free	223
8472.10.00 Duplicating machines	Not applicable	None	100	Japan Korea UK	Argentina Brazil Mexico	Japan Korea UK		221, 222
8472.90.9520(pt.) ADP supported banking machines other than ATMs (including payment terminals, smart card, bank card or cash card processing retailer terminals, and document processing terminals)	Not applicable	None	100	Japan UK Germany	Brazil UK Canada	Japan UK Germany		224

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8472.90.9550(pt.) ADP-supported banking machines other than ATMs (including payment terminals, smart card, bank card or cash card processing retailer terminals, and document processing terminals)	Not applicable	None	100	China Japan Taiwan	Mexico Canada UK	China Japan Taiwan		224
8472.90.9550(pt.) ADP-supported self-service machines, such as information terminals and ticket dispensers	Not applicable	None	100	China Japan Taiwan	Mexico Canada UK	China Japan Taiwan		223
8473.10.40 Parts (other than printed circuit assemblies) of word processing machines	Manufacture of word processing machines	None	100	Japan Malaysia Taiwan	HK Korea Taiwan	Japan Taiwan Canada	• Some U.S. producers anticipate minimal impact	225
8473.10.60 Parts of typewriters	Manufacture of typewriters	None	100	Japan Malaysia Taiwan	Mexico Japan Peru	Malaysia Germany Japan	• Some U.S. producers anticipate minimal impact	225
8473.10.90 Accessories (other than covers, carrying cases and the like) for typewriters and word processing machines	Typewriters and word processing machines	None	100	Japan Malaysia Taiwan	Mexico Japan Brazil	Canada Belgium Israel	• Some U.S. producers anticipate minimal impact	225

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8473.40.95 Parts and accessories (other than covers, carrying cases and the like) of other office machines of heading 8472	Manufacture of office machines	None	100	Japan Mexico UK	UK Mexico Germany	Japan Mexico UK		228
8473.40.95(pt.) Parts and accessories for ADP-supported banking machines other than ATMs, such as payment terminals, smart card, bank card or cash card processing retailer terminals, or document processing terminals and self-service machines, such as information terminals and ticket dispensers of heading 8472.90	Manufacture of ADP- supported banking machines	None	100	Japan Mexico UK	UK Mexico Germany	Japan Mexico UK		226
8473.40.95(pt.) Parts and accessories of digital duplicating machines	Manufacture of digital duplicating machines	None	100	Japan Mexico UK	UK Mexico Germany	Japan Mexico UK		227
8526.10.00 Radar apparatus	Not applicable	None	100	U.S. EU Japan	Kuwait Canada Japan	Japan Singapore Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	204

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8526.10.0020(pt.) Fully computerized vessel traffic systems used for radar surveillance and traffic management of harbors and ships, integrating charts, radar and positioning information	Not applicable	None	100	U.S. EU Japan	Kuwait Canada Japan	Japan Singapore Canada	• U.S. tariff will be free in 1999	205
8526.10.0040(pt) Fully computerized vessel traffic systems used for radar surveillance and traffic management of harbors and ships, integrating charts, radar and positioning information	Not applicable	None	100	U.S. EU Japan	Kuwait Canada Japan	Japan Singapore Canada	• U.S. tariff will be free in 1999	205
8526.10.0040(pt.) Air traffic control system integrating radar information with charts and aircraft flight information	Not applicable	None	100	U.S. EU Japan	Kuwait Canada Japan	Singapore Canada France	• U.S. tariff will be free in 1999	517
8526.91.00 Radio navigational aid apparatus	Not applicable	None	100	U.S. Japan Germany	Canada UK France	Taiwan Mexico Canada	• U.S. tariff will be free in 1999	204
8526.91.00(pt.) Car navigation system	Not applicable	None	100	U.S. Japan Germany	Canada UK France	Taiwan Mexico Singapore	• U.S. tariff will be free in 1999	206
8526.92.00 Radio remote control apparatus	Not applicable	None	100	U.S. Japan UK	Mexico Canada UK	Canada Singapore Japan	• Current U.S. tariff is 4.9 percent	204

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.10.70 Antennas and antenna reflectors of a kind used with apparatus for radiotelephony and radiotelegraphy	Not applicable	None	100	U.S. China Japan	Canada Mexico Venezuela	Canada Mexico Sweden		295
8529.10.90 Antennas and antenna reflectors and parts other than those for television; radar, radio navigational aid, and radio remote control; and radiotelephony and radiotelegraphy	Not applicable	None	100	U.S. EU Japan	Canada Japan Mexico	Canada Mexico Sweden	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan (A-588-405) 	297
8529.90.16 Printed circuit assemblies and subassemblies of radar, radio navigational aid, or radio remote control apparatus, consisting of 2 or more parts or pieces fastened or joined together	Manufacture of navigation apparatus, depth- finders, and global positioning systems	Manufacture of apparatus for toys, garage door openers	80	U.S. EU Japan	Japan Taiwan Turkey	Canada Mexico Israel		304, 305, 493
8529.90.19 Printed circuit assemblies and subassemblies of radar, radio navigational aid, or radio remote control apparatus, consisting of 1 part or piece	Manufacture of navigation apparatus, depth- finders, and global positioning systems	Manufacture of apparatus for toys, garage door openers	80	U.S. Canada EU	Japan Taiwan Turkey	Canada UK Neth.		304, 305, 493

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8529.90.26 Transceiver assemblies for radar apparatus, other than printed circuit assemblies	Manufacture of radar apparatus	None	100	U.S. Canada EU	Japan Taiwan Turkey	Mexico Canada France		304, 305, 493
8529.90.73 Parts of printed circuit assemblies for radar, radio navigational aid, or radio remote control apparatus	Manufacture of radar, radio navigational aid, and radio remote control apparatus	Manufacture of apparatus for toys, garage door openers	80	U.S. EU Japan	Japan Taiwan Turkey	UK Sweden Denmark		304, 493
8529.90.95 Other assemblies and subassemblies of radar, radio navigational aid, or radio remote control apparatus, consisting of 2 or more parts or pieces fastened or joined together, not specifically provided for	Manufacture of radar, radio navigational aid, and radio remote control apparatus	Manufacture of apparatus for toys, garage door openers	80	U.S. EU Japan	Mexico Canada Brazil	Israel Saudi Arabia UK		304, 305, 493
8529.90.97 Other parts of radar, radio navigational aid, or radio remote control apparatus, consisting of 1 part or piece, not specifically provided for	Manufacture of radar, radio navigational aid, and radio remote control apparatus	Manufacture of apparatus for toys, garage door openers	80	U.S. EU Japan	Mexico Canada Brazil	Japan Singapore Canada		304, 305, 493
8531.10.00 Burglar or fire alarms and similar apparatus	Alarms connected to telecommunication s systems	Stand-alone alarms	80	Taiwan Japan Mexico	HK Belgium UK	Mexico Taiwan Canada		309

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8531.90.30 Printed circuit assemblies of electric sound or visual signaling apparatus of heading 8531, other than parts of panels of subheading 8531.20, paging alert devices or flat panel displays for paging alert devices of subheading 8531.80	Manufacture of electronic sound and visual signaling apparatus	Manufacture of electric horns, bells, buzzers	80	Japan Mexico Canada	Mexico Canada Belgium	Mexico Canada China		308, 309
8531.90.90 Parts of electric sound or visual signaling apparatus of heading 8531 other than printed circuit assemblies and parts of panels of subheading 8531.20, paging alert devices or flat panel displays for paging alert devices of subheading 8531.80	Manufacture of electronic sound and visual signaling apparatus	Manufacture of electric horns, bells, buzzers	50	China Taiwan Japan	Mexico Canada Belgium	China Taiwan Dom. Rep.		308, 309
8802.60.30 Communications satellites	Not applicable	None	100	U.S. France Japan	French Guiana Kazakhstan China	Italy	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Current applied U.S. tariff is free and will be bound at free as a result of Uruguay Round negotiations 	207

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8803.90.30 Parts of communications satellites	Communications satellites	None	100	U.S. France Japan	Canada Germany UK	Germany Japan UK	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Current applied U.S. tariff is free and will be bound at free as a result of Uruguay Round negotiations 	208
9006.20.00(pt.) Microfilmers having an automatic document feeder	Not applicable	None	100	U.S. Japan Germany	Canada Germany HK	Japan Taiwan Germany	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	502
9006.51.0060(pt.) Hybrid photographic cameras designed to record digital information as well as photographic images on magnetically sensitized photographic roll film of a width of 24 mm, with through-the-lens view finder	Not applicable	None	100	Japan Indonesia Thailand	Thailand Spain Brazil	Malaysia Germany Japan	<ul style="list-style-type: none"> Likely no U.S. producers U.S. tariff will be free in 1999 	503
9006.52.30(pt.) Fixed focus hand-held hybrid photographic cameras designed to record digital information as well as photographic images on magnetically sensitized photographic roll film of a width of 24 mm	Not applicable	None	100	Japan Indonesia Thailand	Japan Canada Chile	China Japan Indonesia	<ul style="list-style-type: none"> Current U.S. tariff is 4 percent Likely no U.S. producers 	503

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9006.52.50(pt.) Fixed focus, not hand-held, hybrid photographic cameras designed to record digital information as well as photographic images on magnetically sensitized photographic roll film of a width of 24 mm	Not applicable	None	100	Japan Indonesia Thailand	Japan Canada Chile	China Japan Spain	<ul style="list-style-type: none"> • Likely no U.S. producers • U.S. tariff will be free in 1999 	503
9006.52.9060(pt.) Hand-held hybrid photographic cameras, other than fixed focus, designed to record digital information as well as photographic images on magnetically sensitized photographic roll film of a width of 24 mm, not having a through-the-lens view finder	Not applicable	None	100	Japan Malaysia Taiwan	Japan Canada Chile	Indonesia Mexico Malaysia	<ul style="list-style-type: none"> • Likely no U.S. producers • U.S. tariff will be free in 1999 	503
9006.52.9080(pt.) Hybrid photographic cameras other than fixed focus, not hand-held, designed to record digital information as well as photographic images on magnetically sensitized photographic roll film of a width of 24 mm, not having a through-the-lens view finder	Not applicable	None	100	Japan Malaysia Taiwan	Japan Canada Chile	Japan Germany UK	<ul style="list-style-type: none"> • Likely no U.S. producers • U.S. tariff will be free in 1999 	503

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9009.12.00 Electrostatic copying apparatus operated by reproducing the original image via an intermediate onto the copy (indirect process)	Not applicable	None	100	Japan U.S. China	Canada Mexico Neth.	Japan China Neth.	<ul style="list-style-type: none"> Xerox opposes inclusion in ITA-II 	507
9009.22.00 Photocopying apparatus of the contact type, other than electrostatic	Not applicable	None	100	Japan Canada Germany	Singapore Mexico Argentina	Japan Canada Germany	<ul style="list-style-type: none"> Current U.S. tariff is 2.2 percent Likely little or no U.S. production 	508
9009.30.00 Thermo-copying apparatus	Not applicable	None	100	Japan Malaysia UK	Peru Canada Venezuela	Japan Malaysia UK	<ul style="list-style-type: none"> Current U.S. tariff is 2.2 percent Likely little or no U.S. production 	509
9010.10.00(pt.) Apparatus and equipment for automatically developing magnetically sensitized roll photographic film of a width of 24 mm or photographic paper exposed from such film; apparatus and equipment for automatically exposing developed magnetically sensitized photographic film of a width of 24 mm to rolls of photographic paper; all the foregoing designed for retail operations	Not applicable	None	100	Japan Switz. Germany	Japan Germany Taiwan	Japan Switz. Germany		510

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9010.50.30(pt.) Motion-imaging workstations which input and manipulate images from cinematographic film and output the resulting images onto cinematographic film	Not applicable	None	100	U.S. Japan EU	El Salvador Japan Mexico	Italy Germany Canada		510
9010.90.40(pt.) Parts and accessories for motion imaging workstations which input and manipulate images from cinematographic film and output the resulting images onto cinematographic film	Motion imaging workstations	None	100	U.S. Japan EU	Japan Germany France	Germany UK Japan		510
9010.90.90(pt.) Parts and accessories for motion imaging workstations which input and manipulate images from cinematographic film and output the resulting images onto cinematographic film	Motion imaging workstations	None	100	U.S. Japan EU	Japan Germany France	Japan Neth. Switz.		510

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9010.90.90(pt.) Parts and accessories for apparatus and equipment for automatically developing magnetically-sensitized roll photographic film of a width of 24 mm or photographic paper exposed from such film; apparatus and equipment for automatically exposing developed magnetically-sensitized photographic film of a width of 24 mm to rolls of photographic paper; all the foregoing designed for retail operations	Apparatus and equipment used to develop photographic film	None	100	Japan Switz. Germany	Japan Germany France	Japan Neth. Switz.		510
9010.90.90(pt.) Parts and accessories for apparatus and equipment for making copies (including enlargements) of photographic prints, on photographic film or paper (Copy print workstations)	Copy print workstations	None	100	Japan Switz. Germany	Japan Germany France	Japan Neth. Switz.		510
9011.10.40 Stereoscopic, compound optical microscopes provided with a means for photographing the image	Not applicable	None	100	Japan Germany Switz.	Japan Singapore HK	Germany Japan Sweden	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Small U.S. producers may be adversely affected 	511

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9011.10.80 Stereoscopic, compound optical microscopes not provided with a means for photographing the image	Not applicable	None	100	Japan Germany Switz.	Japan Singapore HK	Germany China Japan	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Small U.S. producers may be adversely affected Current U.S. tariff is 7.6 percent and will be 7.2 percent in 1999 	511
9011.20.40 Compound optical microscopes for photomicrography, cinemicrography, or microprojection other than stereoscopic microscopes, provided with a means for photographing the image, other than stereoscopic microscopes	Not applicable	None	100	Japan Germany Switz.	Mexico Germany Japan	Japan China Germany	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Small U.S. producers may be adversely affected 	511
9011.20.80 Microscopes for photomicrography, cinemicrography, or microprojection not provided with a means for photographing the image, other than stereoscopic microscopes	Not applicable	None	100	Japan Germany Switz.	Mexico Germany Japan	Germany Japan Austria	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Small U.S. producers may be adversely affected 	511

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9011.80.00 Compound optical microscopes, other than stereoscopic microscopes and those for photomicrography, cinemicrography, or microprojection	Not applicable	None	100	Japan China Germany	Canada Mexico Brazil	Japan China UK	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Small U.S. producers may be adversely affected 	511
9011.90.00 Parts and accessories of compound optical microscopes	Semiconductor manufacturing, controlling, and inspection systems Scientific and laboratory instruments	None	100	Japan Germany Austria	Japan Canada Germany	Japan Germany Switz.	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Small U.S. producers may be adversely affected 	511
9012.10.00(pt.) Electron microscopes	Not applicable	None	100	Japan Germany Neth.	Japan Taiwan Germany	Japan Germany Neth.	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	512
9012.90.00(pt.) Parts and accessories for electron microscopes	Electron microscopes	None	100	Japan U.S. Germany	Japan Germany Neth.	Japan UK Neth.	<ul style="list-style-type: none"> Small U.S. producers may be adversely affected 	513
9014.10.70(pt.) Dynamic navigational positioning systems for ships and offshore platforms, including drilling platforms	Not applicable	None	100	U.S. EU Japan	Australia Singapore Korea	Switz. France Germany	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	516

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9014.80.20(pt.) Echo sounding instruments and ultrasonic sounding or detecting equipment, including vessel bridge instrumentation systems and computerized echo sounders and underwater navigation systems	Not applicable	None	100	U.S. EU Japan	Canada Mexico Australia	Mexico UK Canada		518
9014.80.40(pt.) Echo sounding instruments and ultrasonic sounding or detecting equipment, including vessel bridge instrumentation systems and computerized echo sounders and underwater navigation systems	Not applicable	None	100	U.S. EU Japan	Japan Korea Mexico	UK Japan Mexico	• U.S. tariff will be free in 1999	518
9014.80.40(pt.) Autopilots for ships and offshore platforms, including drilling platforms	Not applicable	None	100	U.S. EU Japan	Japan Korea Mexico	UK Japan Mexico	• U.S. tariff will be free in 1999	516
9014.80.40(pt.) Dynamic navigational positioning systems for ships and offshore platforms, including drilling platforms	Not applicable	None	100	U.S. EU Japan	Japan Korea Mexico	UK Japan Mexico	• U.S. tariff will be free in 1999	516

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9014.90.40 Non-electrical parts of navigational instruments other than those for aeronautical or space navigation, and of direction finding compasses, optical instruments, ships' logs and depth sounding apparatus	Navigational instruments	None	100	U.S. EU Japan	Japan Canada Mexico	Canada France UK	<ul style="list-style-type: none"> Current U.S. tariff is free 	519
9014.90.60 Parts of direction finding compasses, optical and electrical navigation instruments except automatic pilots	Direction finding compasses	None	100	U.S. EU Japan	Japan Canada Mexico	UK France Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	519
9018.19.40 Electro-diagnostic apparatus used in medical, surgical, dental, or veterinary sciences for functional exploratory examination, and parts and accessories thereof; excluding electrocardiographs, ultrasonic scanning apparatus, magnetic resonance imaging apparatus, and scintigraphic apparatus	Not applicable	None	100	Japan U.S. Germany	Japan Germany Neth.	Japan Germany Sweden	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II U.S. tariff will be free in 1999 	520
9018.19.55 Patient monitoring systems	Not applicable	None	100	U.S. Japan Germany	Germany Sweden Japan	Germany Japan Canada	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II U.S. tariff will be free in 1999 	520

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9018.19.75 Printed circuit assemblies for parameter acquisition modules	Patient monitoring equipment Testing and measuring equipment	None	100	U.S. Japan Germany	Germany Japan Neth.	Germany Canada Japan	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II U.S. tariff will be free in 1999 	520
9018.19.95 Other electro-diagnostic apparatus and parts and accessories thereof, used in the medical, surgical, dental, or veterinary sciences, not elsewhere specified or included	Not applicable	None	100	Japan U.S. Germany	Germany Japan Neth.	Japan Germany Canada	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II U.S. tariff will be free in 1999 	520
9022.14.00 Apparatus based on the use of X-rays for medical, surgical, or veterinary uses other than computed tomography apparatus	Not applicable	None	100	Japan U.S. Germany	Japan France Germany	Germany Neth. Japan	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II U.S. producers support tariff elimination U.S. tariff will be free in 1999 	521
9022.90.60 Parts and accessories of apparatus based on the use of X-rays, other than X-ray tubes	Medical X-ray equipment including computer tomographic scanners Industrial X-ray apparatus Scientific X-ray apparatus	None	100	U.S. Japan Germany	Germany France Japan	Japan France Germany	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II U.S. tariff will be free in 1999 	521

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9023.00.00(pt.) Ship bridge simulators, marine process simulators, and offshore process simulators	Not applicable	None	100	U.S. EU Japan	Japan Canada France	Sweden UK Japan	• Current U.S. tariff is free	522
9027.10.20 Electrical gas or smoke analysis apparatus	Not applicable	None	100	U.S. UK Japan	Germany Mexico Canada	Japan UK Germany	• Industry association supports inclusion in ITA-II	525
9027.10.40 Optical instruments and apparatus for gas or smoke analysis	Not applicable	None	100	U.S. UK Japan	Germany Mexico Canada	Canada Japan Germany	• Industry association supports inclusion in ITA-II	525
9027.10.60 Other apparatus for gas or smoke analysis	Not applicable	None	100	U.S. UK Japan	Germany Mexico Canada	UK Germany Japan	• Industry association supports inclusion in ITA-II	525
9027.40.00 Exposure meters (light meters)	Not applicable	None	100	Japan Germany EU	Japan Germany Canada	Japan Germany Denmark		526
9027.90.20 Microtomes	Not applicable	None	100	U.S. UK Japan	Canada Japan UK	Germany Austria UK		527
9027.90.5440 Parts and accessories of exposure meters (light meters)	Gas chromatographs Electrical spectrophotometer s Exposure meters	None	100	U.S. UK Japan	Taiwan Neth. UK	Japan UK Canada	• Industry association supports inclusion in ITA-II • Outstanding antidumping order in place on certain imports from Japan (A-588-813)	528

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9027.90.58 Parts and accessories of electrical gas or smoke analysis apparatus and of electrical microtomes	Gas or smoke analysis apparatus Exposure meters Microtomes	None	100	U.S. UK Japan	Canada Japan Germany	Japan Ireland Germany	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Outstanding antidumping order in place on certain imports from Japan (A-588-813) 	528
9027.90.68 Parts and accessories of optical instruments, gas or smoke analysis apparatus, and microtomes	Gas or smoke analysis apparatus Exposure meters Microtomes	None	100	U.S. UK Japan	Japan Canada Germany	Japan Mexico Neth.	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	528
9027.90.88 Parts and accessories of non-electrical, non-optical gas or smoke analysis apparatus and microtomes	Gas or smoke analysis apparatus Exposure meters Microtomes	None	100	U.S. UK Japan	Japan Canada Germany	Finland Germany UK	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	528
9030.10.00 Instruments and apparatus for measuring or detecting ionizing radiations	Not applicable	None	100	U.S. UK Japan	Japan Germany Korea	Canada UK Germany	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	529
9030.20.00 Cathode-ray oscilloscopes and cathode-ray oscillographs	Not applicable	None	100	U.S. UK Japan	Japan Korea Germany	Japan Neth. Switz.	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	530
9030.31.00 Multimeters without a recording device	Not applicable	None	100	U.S. UK Japan	Neth. Japan Canada	Neth. Taiwan Korea	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	531

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9030.39.00 Other instruments and apparatus for measuring or checking voltage, current resistance, or power, without a recording device, other than multimeters	Not applicable	None	100	U.S. UK Japan	UK Malaysia HK	Canada Japan UK	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	532
9030.83.00 Other instruments and apparatus for measuring or checking electrical quantities, with a recording device, other than for measuring or checking semiconductor wafers or devices	Not applicable	None	100	U.S. UK Japan	Japan Korea Ireland	Japan Germany UK	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	533
9030.89.00 Measuring and checking instruments and apparatus, without a recording device, other than for measuring or checking semiconductor wafers or devices, ionizing radiation and electrical quantities, other than cathode-ray oscilloscopes and oscillographs, and apparatus designed for telecommunications	Not applicable	None	100	U.S. EU Japan	Japan Korea Germany	Japan UK Germany		534

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9030.90.25 Printed circuit assemblies for parts of instruments and apparatus for measuring or detecting ionizing radiation	Instruments and apparatus for measuring or detecting ionizing radiation	None	100	U.S. UK Japan	Japan Germany France	Canada Japan Taiwan	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	535
9030.90.45 Parts of instruments and apparatus for measuring or detecting ionizing radiation other than printed circuit assemblies	Instruments and apparatus for measuring or detecting ionizing radiation	None	100	U.S. UK Japan	Japan Germany France	Japan Germany Neth.	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	535
9030.90.68 Printed circuit assemblies of instruments and apparatus for measuring or checking electrical quantities, printed circuit assemblies for cathode-ray oscilloscopes and cathode-ray oscillographs, other than for measuring or checking semiconductor wafers or devices and measuring or detecting ionizing radiations	Instruments and apparatus for measuring or checking electrical quantities	None	100	U.S. UK Japan	Japan UK Germany	UK Canada Germany	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	535

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9030.90.88 Parts and accessories (other than printed circuit assemblies) of instruments and apparatus for measuring or checking electrical quantities, other than for measuring or detecting ionizing radiations and other than for measuring or checking semiconductor wafers or devices	Instruments and apparatus for measuring or checking electrical quantities	None	100	U.S. UK Japan	Japan UK Germany	Japan Germany UK	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	535
9030.90.8840(pt.) Anechoic chamber kit	Provide testing environment for EMI	Provide testing environment for EMI	50	US Japan Germany	Japan Germany France	UK Germany Canada		490, 491
9030.90.8860(pt.) Anechoic chamber kit	Provide testing environment for EMI	Provide testing environment for EMI	50	US Japan Germany	Japan Germany France	Japan Germany UK		490, 491
9031.10.00 Machines for balancing mechanical parts	Not applicable	None	100	U.S. UK Japan	Canada Germany HK	Switz. Japan Ireland	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	536
9031.20.00 Test benches	Not applicable	None	100	U.S. UK Japan	Japan Canada Mexico	UK Germany Japan	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	536
9031.30.00 Profile projectors	Not applicable	None	100	U.S. UK Japan	Taiwan Korea Japan	UK Japan Germany	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	536

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9031.49.40 Optical coordinate-measuring machines	Not applicable	None	100	U.S. UK Japan	Canada Switz. Singapore	Canada Finland Germany	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	536
9031.49.90 Optical instruments and appliances not elsewhere specified or included other than those for inspecting masks, photomasks, and semiconductor wafers and devices, and coordinate measuring machines	Office equipment Telecommunications equipment	Vending machines Banking Gaming industries	>90	U.S. UK Japan	Japan Mexico Germany	Canada Germany Japan		536
9031.49.90(pt.) Coin or token acceptors which are parts of coin- or token-operated record players of 8519.10.00	Coin-operated record players (juke boxes)	None	100	Japan China HK	Japan Mexico Germany	Japan China Malaysia	<ul style="list-style-type: none"> Current U.S. tariff is 2.8 percent 	240
9031.49.90(pt.) Coin or bill (bank note) changers or acceptors of a kind used with automatic vending machines	Office equipment Telecommunications equipment	Vending machines Banking Gaming industries	1	U.S. Japan	Japan Mexico Germany	Japan Mexico New Zealand	<ul style="list-style-type: none"> U.S. producers are internationally competitive U.S. producers support U.S. tariff elimination if other countries also eliminate tariffs 	229
9031.80.80 Other measuring or checking instruments, appliances, and machines not elsewhere specified or included other than optical instruments and electron beam microscopes for use in the manufacture of semiconductor devices	Equipment for testing the electrical characteristics of internal combustion engines	None	100	U.S. UK Japan	Canada Mexico Japan	Japan Germany Mexico	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	536

Table 3-2
Office machines and photographic, navigational aid, and scientific apparatus for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9031.80.8085(pt.) Coin or bill (bank note) changers or acceptors of a kind used with automatic vending machines	Office equipment Telecommunications equipment	Vending machines Banking Gaming industries	1	U.S. Japan	Canada UK Australia	Japan Mexico New Zealand	<ul style="list-style-type: none"> Some U.S. producers and trade associations anticipate increased foreign market opportunities 	229
9031.80.8085(pt.) Coin or token acceptors which are parts of coin- or token-operated record players of 8519.10.00	Coin-operated record players (juke boxes)	None	100	Japan China HK	Canada UK Australia	Japan China Malaysia		240
9032.10.00 Thermostats	Scientific and laboratory applications	Temperature regulatory or controlling apparatus	<10	U.S. UK Japan	Canada Mexico HK	Mexico Canada Taiwan	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	537
9032.20.00 Manostats	Scientific and laboratory applications	Pressure controlling devices	<10	U.S. UK Japan	France Canada Germany	Mexico Germany Italy	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	537
9032.90.60 Parts and accessories of other instruments and apparatus	Scientific and laboratory applications	Industrial process control applications	10	U.S. EU Japan	Canada Mexico Germany	Japan Mexico Germany	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	537
9032.90.6080(pt.) Parts and accessories for computerized ships engine control, alarm and surveillance systems	No uses specific to IT identified	Industrial process control applications	<1	U.S. EU Japan	Canada Mexico Germany	Japan Mexico Germany		538

CHAPTER 4

Machines for the Manufacture of Information Technology Products

Wm. Scott Baker

Introduction

The items discussed in this chapter are used in the production of finished information technology goods. Of particular note are the many and varied machines used to manufacture printed circuits which account for a substantial portion of the items covered in this chapter. The items in this chapter, described in table 4-1, are grouped according to trade significance and function. Table 4-2, at the end of this chapter, lists all of the products covered in this chapter, describes the products and their uses, identifies major producing countries and U.S. trading partners, and provides trade-related information gathered from U.S. industry and government sources.

Table 4-1
Major product groupings: Machines for the manufacture of information technology products

Group	Principal products/uses
Machines with individual functions used specifically in printed circuit manufacture	<ul style="list-style-type: none"> • applying solder, adhesives, or sealants to printed circuits • applying photosensitive materials to printed circuit panels • chemically treating printed circuit panels • applying or removing etchants, strippers, and developers or regenerating chemicals • dispensing thermal grease onto electronic circuits • components insertion
Machines for electrical testing of printed circuits	<ul style="list-style-type: none"> • measuring or checking electrical quantities on printed circuits • testing the electrical continuity of bare boards
Machines for filtering or purifying water	<ul style="list-style-type: none"> • filtering or purifying water
Automated material handling machines used specifically in printed circuit manufacture	<ul style="list-style-type: none"> • placing components on printed circuits • transporting, handling, and storing printed circuits and components
Machines for encapsulation and registration of printed circuits	<ul style="list-style-type: none"> • molding components • aligning image forming films to printed circuits • laminating individual printed circuits into multilayer printed circuits • aligning plastics materials in the manufacture of capacitors • punching holes or slots in film used in printed circuit manufacture
Other items/machines	<ul style="list-style-type: none"> • heat treatment apparatus • machine tools for working printed circuits • capacitor manufacturing machines • lenses used in semiconductor manufacture • other machines used in manufacture of printed circuits

Source: Compiled by USITC staff.

Trade Patterns and Market Opportunities

The value of U.S. imports of items covered in this chapter was \$5.3 billion in 1997.⁸² The principal sources were Japan, Canada, and Germany, which together accounted for 65 percent of imports. All of the leading sources of imports are major industrialized nations which have the technology and industrial base required to build the sophisticated machinery used in the manufacture of IT products. The EU, Japan, and Canada accounted for 88 percent of U.S. imports of the products covered in this chapter during 1997. However, trade figures are overstated as many of these machines do not comprise the entire 8- or 10-digit *HTS* categories in which they are classified.

“Machines with individual functions used specifically in printed circuit manufacture” comprised the largest U.S. import group and accounted for 19 percent of the total value of imports covered in this chapter. Many machines used in the manufacture of printed circuits are new technology that have not been specifically identified under another *HTS* heading and therefore fall into this category. Other leading imports were machines for encapsulation and registration of printed circuits, automated material handling machines used specifically in printed circuit manufacture, and machines for electrical testing of printed circuits, which together accounted for an additional 42 percent of the total imports covered in this chapter.

The value of U.S. exports of items in this chapter was \$8.7 billion in 1997. The leading markets for U.S. exports were Canada, Japan, and Mexico⁸³ which together accounted for almost 37 percent of total exports. In contrast to the import sources, the principal export markets included many Asian countries. Japan, Korea, Taiwan, Singapore, China,⁸⁴ Malaysia, Hong Kong, the Philippines, Thailand, and Indonesia were among the 25 leading export markets. The countries of Asia represent a major market for U.S. and other global producers of printed circuit manufacturing equipment since a large portion of global printed circuit production is performed in that region. For example, Japan, Taiwan, China, Korea, and Singapore accounted for 45 percent of world production in 1995.⁸⁵ U.S. exports to all EU members together only accounted for 19 percent of the total. The leading 25 export markets for the products covered in this chapter accounted for 88 percent of the U.S. total in 1997; of these, 18 are ITA participants.

Machines with individual functions used specifically in printed circuit manufacture also comprised the largest U.S. export group and accounted for 30 percent of the value of exports of the products in this chapter in 1997. U.S. producers are leading manufacturers of printed circuit manufacturing machines and, as such, command a significant share of the world market for these machines. Other major export categories in 1997 were machines for electrical testing of printed circuits and machines for filtering or purifying water although probably only a small portion of the latter goes into IT production; together these two categories accounted for 32 percent of U.S. exports of the machines in this chapter in 1997.

In 1999, U.S. imports entering under 25 of the 53 *HTS* subheadings covered by this chapter will be duty free.⁸⁶ These imports include parts of machines with individual functions used specifically in printed circuit manufacture and a portion of the automated material handling machines used specifically in printed circuit manufacture. Overall, about 42 percent of total U.S. imports of the machines discussed in this chapter

⁸² All trade data are based on official statistics of the U.S. Department of Commerce (USDOC).

⁸³ Mexico is not an ITA signatory.

⁸⁴ China is not an ITA signatory.

⁸⁵ Institute for Interconnecting and Packaging Electronic Circuits, fax to USITC staff, Apr. 16, 1998.

⁸⁶ Unless otherwise indicated, tariffs cited in this report are the final Uruguay Round concession rates which enter into effect Jan. 1, 1999. *Most-Favoured Nation Tariff Schedules, Annexes to Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations* (Marrakesh Protocol), Apr. 15, 1994.

will enter free of duty prior to any tariff reductions which might arise if these items are included in the ITA.⁸⁷ Accordingly, the opportunities for increased exports to the United States of the machines in this chapter will be limited to those items for which the United States still levies duties.

Opportunities for U.S. exports vary according to markets. U.S. exports to Canada, our largest foreign market, are duty free due to tariff cuts begun under the U.S.-Canada Free Trade Agreement (FTA) and completed under the NAFTA, while exports from other countries to Canada are not. Canada's most-favored nation (MFN) duty rates currently range from free to 9.2 percent for the items covered in this chapter with many duty rates ranging from 6 to 8 percent. If Canada removes its duties on these items, U.S. producers will have to compete on the same basis as other foreign producers in the Canadian market, and U.S. exports to Canada may fall.

Duty rates in major Asian markets such as Japan, Korea, Singapore, Malaysia, Thailand, Indonesia, and Taiwan range from free to 40 percent.⁸⁸ Since a substantial portion of world production of printed circuits takes place in these Asian countries, there would appear to be improved opportunities for increased exports as a result of reduced duties for producers in the United States, Japan, and the EU, where many of these machines are made. Although China is a large market for the machines in this chapter, China is not an ITA signatory and its tariffs, many of which are 30 percent, would not be eliminated.⁸⁹

Opportunities in the EU arising from tariff elimination are expected to be limited as many major global producers are located in the region. Further, EU tariffs on these machines are relatively low, ranging from free to 6.7 percent, with most in the 1- to 3-percent range.

Two factors, NAFTA and the Asian financial crisis, are likely to mitigate the impact of duty reduction on U.S. exports. In 1997, over 27 percent of total U.S. exports of the items covered in this chapter entered Canada and Mexico duty free. While this does leave substantial growth opportunities for U.S. exports due to duty elimination, approximately one quarter of the leading export markets were Asian countries that were subjected to the financial crisis of 1997. It is not known how long it will take for these economies to recover sufficiently to allow an increase in U.S. exports to the region due to duty reduction.

The trade association representing many U.S. producers of printed circuit manufacturing equipment, the Institute for Interconnecting and Packaging Electronic Circuits (IPC), maintains that including machines used in the manufacture of printed circuits will increase foreign market opportunities for globally competitive U.S. producers. Importantly, IPC maintains that the inclusion of these machines in the ITA will "level the playing field" globally for U.S. producers, given that U.S. tariffs on most of these machines are relatively low as compared with tariffs of many other ITA signatories.⁹⁰

⁸⁷ Estimate based on 1997 data.

⁸⁸ As Taiwan is not a member of the WTO its tariffs are not bound. Taiwan's tariffs on most of the items in this chapter average 7.5 percent. Obtained from the APEC tariff database, found at <http://www.apectariff.org>, retrieved April 10, 1998.

⁸⁹ As China is not a member of the WTO its tariffs are not bound. Obtained from the APEC tariff database, found at <http://www.apectariff.org>, retrieved April 10, 1998.

⁹⁰ Thomas J. Dammrich, The Institute for Interconnecting and Packaging Electronic Circuits, written submission to the USITC on inv. 332-390, Mar. 24, 1998.

Machines with individual functions and parts (used specifically in printed circuit manufacture)

U.S. imports of these items were \$1.0 billion in 1997.⁹¹ All of the leading sources of imports were advanced industrialized countries with advanced technology manufacturing capability. The principal sources were Japan, Germany, and Canada, which together accounted for 68 percent of U.S. imports. U.S. import duties range from free to 2.8 percent, and approximately 40 percent of U.S. imports of these machines will be duty free in 1999.⁹²

U.S. exports of these machines were \$2.6 billion in 1997, and the principal export markets, Canada, Mexico, and Korea, accounted for 49 percent of the total. Since U.S. trade with Canada is duty free under the FTA and the NAFTA, and Mexico is not an ITA signatory, increased export opportunities will come from duty reductions in other markets. The duty rates in other leading export markets are Korea, 13 to 16 percent; China, 14 to 70 percent; Taiwan, zero to 15 percent; Singapore, unbound; and Malaysia, 5 percent. The United Kingdom and Germany are among the top 10 export markets, and the EU duty rates on these items range from zero to 1.7 percent; however, some of the duty rates are only partially bound.

U.S. producers' views on the impact of duty elimination varied. Some U.S. producers anticipate an adverse impact of duty reduction, stating that foreign firms are already highly competitive and lowered duties on U.S. imports would serve to make such firms even more competitive in the U.S. market.⁹³ In contrast, other U.S. producers do not anticipate sales problems in the domestic market. Still others anticipate increased foreign market opportunities arising from foreign duty elimination.⁹⁴ One U.S. producer stated that high tariffs in Taiwan and India represented significant trade barriers and the removal of these tariffs would expand the opportunity for doing business in those markets.⁹⁵

U.S. producers also noted a variety of nontariff barriers they encountered in other ITA signatories. The recent appreciation of the U.S. dollar relative to certain other currencies was noted by a number of producers; one producer said this had the single largest influence on trade. The EU's Common European (CE) mark⁹⁶ was mentioned by several producers, one of whom stated that the mark's requirements were nebulous and open to various interpretations among different EU countries. One U.S. industry contact said that the safety restrictions required of the CE mark make it impossible to operate the firm's machine in the EU, while others believed that the CE mark was an inconvenience but did not negatively impact their business in Europe. One U.S. producer maintained the European electrical specification is a major trade barrier in the EU because anything the producer makes must be retrofitted to meet the standard. One producer noted that Indian import policies; customs procedures; and standards, testing, labeling, and certification issues were of particular concern as they often impede exports. Another U.S. producer claimed some Indian banks are slow to allow letters of credit to pass, and cited the practice as a barrier to trade. U.S. producers cited a Japanese consumer preference to buy

⁹¹ Trade figures are overstated as many of these machines do not comprise the entire 8- or 10-digit *HTS* categories in which they are classified.

⁹² Based on 1997 trade data.

⁹³ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

⁹⁴ *Ibid.*

⁹⁵ U.S. industry representative, telephone interview by USITC staff, Feb. 1998.

⁹⁶ The CE-marking is a regulatory community sign that has to be obligatorily affixed on industrial products covered by one or more directives of the "new approach." It symbolizes the compliance of the product with all essential requirements relating to safety, public health, consumer protection or other specific aspects of community interest laid down in the directive(s) and the fact that it has been submitted to the appropriate conformity assessment evaluation procedures, also according to the directive(s). European Union, Delegation of the European Commission to the United States, found at <http://www.eurunion.org/legislat/standard/cemarks.htm>, retrieved Apr. 29, 1998.

domestic and the alleged practice by Japanese machine producers of providing incentives to customers to obtain sales as trade barriers in Japan.⁹⁷

Machines for electrical testing of printed circuits

U.S. imports of these items were valued at \$642 million in 1997.⁹⁸ The leading sources were Japan, the United Kingdom, and Canada, accounting for 67 percent of U.S. imports. Again, the principal sources are advanced industrial economies capable of making sophisticated electronic equipment used in testing IT products during their manufacture. U.S. duties on these items are relatively low, ranging from free to 1.7 percent.

In contrast, U.S. exports of these machines were valued at \$1.9 billion in 1997. The United States is a world leader in the manufacture of testing equipment, as indicated by the large trade surplus, and a substantial portion of U.S. exports go to economies in Asia where printed circuits are manufactured. The principal U.S. export markets for these machines in 1997 were Japan, Korea, and Taiwan, which together accounted for 38 percent of the total. Japan does not assess import duties on these machines. Other major Asian markets and their duty rates are Korea, 8 to 13 percent; Taiwan, 7.5 to 15 percent; Singapore, zero to 10 percent; Hong Kong, zero; and Malaysia, zero to 5 percent. Germany, the United Kingdom, and France are the leading U.S. export markets in the EU where duty rates range from zero to 4.2 percent, although some rates are unbound.

U.S. producers anticipate tariff elimination will result in a negligible to moderate increase in exports to developing markets that are ITA members and a negligible to moderate increase in U.S. imports. None of the U.S. producers contacted reported any nontariff barriers in ITA signatories for these machines.⁹⁹

Machines for filtering or purifying water

U.S. imports of machines for filtering or purifying water were \$281 million in 1997.¹⁰⁰ The principal sources were Canada, Germany, and the United Kingdom, together accounting for 68 percent of the total. U.S. tariffs on these items will be free in 1999. U.S. exports of the same items were valued at \$881 million in 1997. The principal export markets were Japan, Canada, and France, accounting for 30 percent of total exports. U.S. exports to Japan and Canada would not be affected by the inclusion of these machines in the ITA as Japan's tariffs on these machines are already zero and U.S. exports to Canada are duty free under the FTA and NAFTA. EU tariffs on these machines range from zero to 1.7 percent; France and the United Kingdom are among the 10 leading U.S. export markets. Tariffs of other leading export markets are 5 to 7.5 percent in Taiwan; zero to 16 percent in Korea; and 10 percent in Singapore. While China is among the top 10 U.S. export markets for these items, China is not an ITA participant and its duties, ranging from 40 to 100 percent, would not be affected by the agreement. U.S. industry representatives contacted stated that water purification was not information technology and offered no information on foreign tariff or nontariff barriers.¹⁰¹

⁹⁷ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

⁹⁸ Trade figures are overstated as many of these machines do not comprise the entire 8- or 10-digit *HTS* categories in which they are classified.

⁹⁹ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹⁰⁰ Trade figures are overstated as many of these machines do not comprise the entire 8- or 10-digit *HTS* categories in which they are classified.

¹⁰¹ U.S. industry representatives, telephone interviews by USITC staff, Mar. 1998.

Automated material handling machines (used specifically in printed circuit manufacture)

U.S. imports of these machines were valued at \$751 million in 1997.¹⁰² The principal sources of imports were Canada, Germany, and Japan, accounting for 64 percent of total imports.¹⁰³ All of these countries have the advanced manufacturing skills and technology necessary for the production of these machines. U.S. duties on these items will be free in 1999. U.S. exports of these automated material handling machines were valued at \$755 million in 1997. The principal export markets were Canada, Venezuela, and Mexico, which together accounted for 42 percent of exports. U.S. exports to Canada and Mexico are duty free under the FTA and NAFTA. Exports to Venezuela face duty rates of 35 percent; however, Venezuela is not a participant in the ITA. Other import duties on these machines in the 10 leading export markets are the United Kingdom, free; China, 30 percent; Japan, free; Taiwan, 7.5 percent; Brazil,¹⁰⁴ 25 to 35 percent; Germany, free; and Korea, free.

U.S. producers anticipate minimal impact as a result of duty elimination. One U.S. firm stated that reduced tariffs would likely improve the company's cash flow and allow it to reduce prices but would not give it a competitive advantage.¹⁰⁵ Other U.S. producers were not concerned about tariff reductions. One U.S. producer cited the CE mark in the EU as a barrier, but also noted that it applies equally to all suppliers. One U.S. producer stated that Japanese consumers' preference to buy domestic and Japanese competitors' practice of providing incentives to customers to obtain sales impede its sales in that market.¹⁰⁶

Machines for encapsulation and registration of printed circuits

U.S. imports of these machines were \$861 million in 1997.¹⁰⁷ The principal sources of imports were Germany, Canada, and Japan, which together accounted for 73 percent of the total. U.S. duty rates on imports of these items range from free to 3.1 percent. U.S. exports of these machines were lower than imports, valued at \$606 million in 1997. The principal export markets were Canada, Mexico, and the United Kingdom, accounting for 47 percent of total exports. Exports to Canada and Mexico are free under the FTA and NAFTA. The EU duty rate for the United Kingdom and Germany is 1.7 percent. Duty rates for other leading export markets are Brazil, 15 to 35 percent; Japan, free; China, 30 to 45 percent; Australia, 10 percent; and Korea, 13 percent. Argentina is also a leading export market but its tariffs are not bound and it is not an ITA participant.

A major U.S. producer opposes inclusion of encapsulating and registration machines in the ITA on national security grounds.¹⁰⁸ Some members of the Society of the Plastics Industry also oppose inclusion of these machines in the ITA.¹⁰⁹ Individual U.S. producers as well as the Association for Manufacturing Technology (AMT) oppose the inclusion of some items in this group because of possible trade distortions due to *HTS* classification problems. AMT based its opposition on a similar experience that has arisen in the wake of the implementation of tariff concessions for semiconductor manufacturing equipment included in the

¹⁰² Trade figures are overstated as many of these machines do not comprise the entire 8- or 10-digit *HTS* categories in which they are classified.

¹⁰³ An outstanding antidumping order is currently in place on imports from Japan of certain items classified in *HTS* 8428.90.80. Some automated material handling machines are classified under *HTS* 8428.90.80.

¹⁰⁴ Brazil is not an ITA signatory.

¹⁰⁵ U.S. industry representative, telephone interview by USITC staff, Mar. 1998.

¹⁰⁶ *Ibid.*

¹⁰⁷ Trade figures are overstated as many of these machines do not comprise the entire 8- or 10-digit *HTS* categories in which they are classified.

¹⁰⁸ U.S. industry producer, telephone interview by USITC staff, Mar. 1998.

¹⁰⁹ The Society of the Plastics Industry, Inc., faxes to USITC staff, Mar. 1998.

ITA. Many of these machines traditionally had been classified in the same *HTS* categories as other metalworking equipment. In implementing the original agreement, separate tariff lines for the same machines, differentiated by application only (semiconductor versus metalworking), were created in countries' tariff schedules so ITA participants could eliminate tariffs on semiconductor machinery while maintaining tariffs on metalworking machinery.

AMT states that its members were assured at that time that these categories would be enforceable by customs agents and that metalworking machines would not be misclassified in the semiconductor machine categories scheduled to become duty free. However, AMT maintains that the latest trade data indicate many metalworking machines have been imported into the United States in the new semiconductor manufacturing equipment categories and, as a result, importers have paid lower duties than required. According to AMT, 44 percent of 1997 U.S. imports of the machines in question were for metalworking and 56 percent were for semiconductor equipment, figures that AMT states are not reflective of true machinery imports. AMT maintains that 40 times more machines were imported for "semiconductor manufacture" than were actually purchased by the U.S. semiconductor manufacturing industry. AMT therefore opposes creating new categories for machinery specifically used in the production of printed circuits based on the fear that metalworking machines wrongly imported at lower duties could threaten the domestic metalworking machine industry.¹¹⁰

Nontariff barriers to U.S. exports of encapsulating and registration machines cited by U.S. producers include the CE mark in the EU, which U.S. producers maintain is cumbersome to obtain as it is based on machine type and different EU member countries have different views on what constitutes "encapsulating" machines. Barriers in India and Japan already mentioned also affect U.S. exports of these machines.¹¹¹ However, one U.S. producer reported no problems with exporting its products, speculating this was because it custom-designed and -manufactured every machine and shipped only confirmed sales.¹¹²

Other machines and apparatus for the making of IT products

U.S. imports of all other machines and apparatus discussed in this chapter totaled \$1.8 billion in 1997.¹¹³ The leading import sources, Japan, Germany, and Canada, accounted for over 60 percent of the total.¹¹⁴ Furnaces, dryers, and other heat treatment apparatus and machine tools for working printed circuits, such as laser marking tools and machines for working plastics, accounted for almost half of these imports.

The leading export markets for these machines and apparatus were Canada, Mexico, and Japan, which together accounted for 32 percent of the total. U.S. exports to Canada and Mexico are free under the FTA and NAFTA, and Japan's duties are free. Other leading markets include EU members Germany, the United Kingdom, and France, with duty rates that range from free to 6.7 percent; however, some of these tariffs are only partially bound. Leading markets in Asia and their duty rates are Taiwan, free to 10 percent; Korea, free to 13 percent; Singapore, free to 10 percent; and Malaysia, free to 30 percent.¹¹⁵ The leading U.S. export

¹¹⁰ Patrick McGibbon, Association for Manufacturing Technology, written submission to USITC on inv. 332-390, March 23, 1998.

¹¹¹ See pp. 4-4 and 4-6.

¹¹² U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹¹³ Trade figures are overstated as many of these machines do not comprise the entire 8- or 10-digit *HTS* categories in which they are classified.

¹¹⁴ Outstanding antidumping orders are currently in place on certain imports from Japan classified in *HTS* 9002.19.00 and *HTS* 9010.90.90. Some of the machines discussed in this group are classified in these *HTS* categories.

¹¹⁵ Some of the tariffs in Korea and Singapore are only partially bound.

categories were furnaces, dryers, and other heat treatment apparatus and machine tools for working printed circuits.

If tariffs are eliminated on these products, U.S. and German exporters would likely gain foreign market share in Asian ITA signatories. The opinions of U.S. producers of the items covered in this group were varied regarding the inclusion of these products in the ITA, and a number of producers stated that duty reductions would result in an adverse impact on the U.S. industry.¹¹⁶

One U.S. producer of ovens stated that tariff elimination would provide increased market access to Asian markets, particularly Korea. Another producer stated that tariff elimination for these products in emerging markets would greatly increase market opportunities for major U.S. producers as U.S. industrial and scientific ovens and dryers are essential for printed circuit processing and for curing adhesives.¹¹⁷

U.S. machine tool producers and machine tool industry association representatives noted a variety of nontariff barriers in ITA signatories to U.S. exports of these products. In the EU, the barrier named most frequently was the CE mark, for which U.S. producers incur substantial costs and time to obtain. One U.S. producer estimated that the cost of obtaining the CE mark for its machines was \$20,000 to \$30,000 per machine. The association asserts that Japanese purchasers tend to source machine tools domestically if possible, although U.S. machine tool builders with niche products that face little Japanese competition have greater opportunities in the Japanese market.¹¹⁸ Export subsidies for Korean and Italian producers were also noted. One U.S. machine tool producer reported that competitors in Korea were very price competitive in growing markets in Asia, which the U.S. producer attributed to export subsidies or rebates of export taxes. Similarly, the producer noted that there were incentives for exports and tax relief in Japan.¹¹⁹

One U.S. machine tool producer stated that the United States is a global leader in the production of lasers for marking printed circuits and that tariff reductions would benefit the U.S. industry as most marking of integrated circuits, printed circuits, integrated circuit cartridges, and encapsulating packages containing such articles is done offshore. A U.S. laser producer reported that Asia and Europe are important markets for U.S. laser marking machines, although tariff reductions would also benefit globally competitive exporters in Germany and Japan. However, industry representatives state that U.S. producers are less internationally competitive in the metalworking laser drilling and cutting segments of the market and would not realize as many foreign market opportunities from tariff elimination.¹²⁰

AMT opposes including certain machine tools in the ITA, maintaining that U.S. tariff elimination would adversely affect U.S. machine tool builders due to reduced price competitiveness of U.S.-built machine tools. At the same time, foreign tariff reductions would only marginally increase U.S. exports of metalworking machine tools, as U.S. builders would still face nontariff trade barriers in foreign markets. Further, AMT states that less than 10 percent of metal-working machine tools are used to make IT products and that metal-working machine tools are dual-use production inputs with major applications being the production of parts for the motor vehicle industry and aerospace industry.¹²¹

A U.S. producer of drilling and routing machines opposed the elimination of U.S. tariffs, fearing increased foreign competition in the U.S. market. U.S. optics industry officials indicated that tariff elimination

¹¹⁶ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹¹⁷ Ibid.

¹¹⁸ U.S. industry representative, telephone interview by USITC staff, Mar. 1998.

¹¹⁹ Ibid.

¹²⁰ U.S. industry representatives, telephone interviews by USITC staff, Mar. 1998.

¹²¹ Patrick McGibbin, Association of Manufacturing Technology, written submission to USITC on inv. 332-390, Mar. 23, 1998.

under the ITA would likely lead to an increase in U.S. imports of optical equipment, such as lenses for wafer steppers, and cause a moderate loss of market share for U.S. producers, particularly small producers.¹²²

¹²² U.S. industry representatives, telephone interviews by USITC staff, Mar. 1998.

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8417.80.00 Nonelectric industrial or laboratory furnaces and ovens, other than furnaces and ovens for ores, pyrites, or metals or bakery ovens	Manufacture of disk drives Logic/memory components	Aircraft Motor vehicles Pharmaceuticals	25	Japan U.S. Taiwan	Mexico Canada Korea	Japan Canada Germany	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact 	402
8419.39.0080 Dryers other than those for agricultural products, wood, pulp, paper, paperboard, food or beverages	Manufacture of semiconductors, telecommunications equipment, computers	Plastics Petrochemicals	<1	EU U.S. Japan	Canada Mexico Germany	Germany Japan Canada	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	153
8419.89.9080 Machinery for the treatment of rubber and plastics by a process involving a change in temperature	Manufacture of semiconductors, telecommunications equipment, computers	Plastics Petrochemicals	10	Japan U.S. EU	Canada Russia Korea	Germany Canada Japan	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. producers support tariff elimination 	404
8419.89.9085 Machinery for the treatment of materials by a process involving a change in temperature, not elsewhere specified or included	Manufacture of semiconductors, office equipment, computers	Plastics Petrochemicals Pharmaceuticals	10	Japan U.S.	Canada Mexico Germany	Japan Canada Germany	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. producers support tariff elimination 	153, 404
8420.10.9080(pt.) Roll laminators for applying dry, solid film photo resist to panels used in printed circuit manufacturing	Manufacture of printed circuits	None	100	Germany U.S. Japan	Canada Mexico Taiwan	Japan Italy Germany	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	152

Table 4-2
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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8421.19.90(pt.) Spinners for coating photographic emulsions on LCD substrates	Liquid crystal devices	None	100	EU Japan	Canada Japan Mexico	Germany UK Denmark	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 U.S. producers could not be located 	191
8421.21.00 Machinery and apparatus for filtering or purifying water	Manufacture of semiconductor wafers	Municipal and industrial water and wastewater treatment	<1	U.S. Germany Japan	Japan Canada France	Canada Germany Italy	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	407
8421.91.90(pt.) Parts of spinners for coating photographic emulsions on LCD substrates	Parts of machines for liquid crystal device production	None	100	EU Japan	Canada Japan Germany	Germany UK Japan	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 U.S. producers could not be located 	192
8421.99.0040 Parts of filtering or purifying apparatus for water	Parts of machines for semiconductor wafer production	Municipal and industrial water and wastewater treatment	<1	U.S. Germany Japan	Canada Mexico Japan	Canada Japan Germany	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	406
8424.89.7090(pt.) Machines for cleaning printed circuits by chemical spray	Printed circuits	None	100	U.S. Japan Taiwan	Canada Japan Germany	Canada Japan Germany	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities U.S. producers anticipate minimal impact 	121
8424.89.7090(pt.) Machines for cleaning printed circuits by pumice spray	Printed circuits	None	100	U.S. Taiwan Korea	Canada Japan Germany	Canada Japan Germany	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. producers anticipate increased foreign market opportunities 	125

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8424.89.7090(pt.) Wet processing equipment (spray type) used in manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. Taiwan Korea	Canada Japan Germany	Canada Japan Germany	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities U.S. producers anticipate minimal impact 	404
8424.89.7090(pt.) Apparatus for wet etching, developing, stripping, or cleaning printed circuits	Manufacture of printed circuits	None	100	U.S. Taiwan Korea	Canada Japan Germany	Canada Japan Germany	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities U.S. producers anticipate minimal impact 	126, 171, 174
8424.89.7090(pt.) Appliances for applying, by spraying or curtain coating, photosensitive material to panels used in the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. UK	Canada Japan Germany	Canada Japan Germany		152
8424.89.7090(pt.) Appliances for treating with chemicals, by spraying, panels used in the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. Taiwan Korea	Canada Japan Germany	Canada Japan Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Some U.S. producers anticipate increased foreign market opportunities 	124, 152
8424.89.7090(pt.) Appliances for applying molten solder to printed circuits	Printed circuits	None	100	U.S. EU Japan	Canada Japan Germany	Canada Japan Germany		124

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8424.89.7090(pt.) Appliances for applying liquids, by curtain coating, to panels used in manufacturing or processing printed circuits	Printed circuits	None	100	U.S. Italy Switz.	Canada Japan Germany	Canada Japan Germany		123
8424.89.7090(pt.) Appliances for encapsulating or hermetically sealing components on a printed circuit board by spraying	Printed circuits	None	100	U.S. Italy Switz.	Canada Japan Germany	Canada Japan Germany		122
8424.90.8085(pt.) Parts of appliances for applying solder, photosensitive materials or other chemical solutions to substrates used in the manufacture of printed circuits	Manufacture of printed circuits	None	100	U.S. Taiwan Korea	Canada Neth. Japan	Italy Germany Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	127
8424.90.8085(pt.) Parts of spraying appliances for wet etching, developing, stripping, or cleaning printed circuits	Manufacture of printed circuits	None	100	U.S. Taiwan Korea	Canada Neth. Japan	Italy Germany Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	128, 175
8428.20.80(pt.) Automated pneumatic elevators and conveyors for the placement of components on printed circuits or other substrates (pick and place equipment)	Machines used to place components onto printed circuits or other substrates	None	100	U.S. Japan Germany	Japan Mexico Korea	Canada Germany Japan	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	464

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8428.20.80(pt.) Automated pneumatic elevators and conveyors for the placement of components, other than surface mount components or electrical contact elements, on printed circuits, ceramic substrates or other substrates (pick and place equipment)	Machines used to place components onto printed circuits or other substrates	None	100	U.S. Japan Germany	Japan Mexico Korea	Canada Germany Japan	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	465
8428.33.80(pt.) Belt type automated continuous action machines for transport, handling, and storage of printed circuits and components to be mounted on such printed circuits	Machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada Mexico China	Canada Japan Denmark	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	129
8428.33.80(pt.) Belt type automated continuous action machines for the placement of surface mount components on printed circuits or other substrates (pick and place equipment)	Machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada Mexico China	Canada Japan Denmark	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	464

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8428.33.80(pt.) Belt type automated continuous action machines for the placement of components, other than surface mount components or electrical contact elements, on printed circuits, ceramic substrates, or other substrates (pick and place equipment)	Machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada Mexico China	Canada Japan Denmark	<ul style="list-style-type: none"> • U.S. producers anticipate minimal impact • U.S. tariff will be free in 1999 	465
8428.39.80(pt.) Automated continuous action machines, other than belt or bucket type, for transport, handling, and storage of printed circuits and components to be mounted on such printed circuits	Machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada UK Mexico	Canada Germany Japan	<ul style="list-style-type: none"> • U.S. producers anticipate minimal impact • U.S. tariff will be free in 1999 	129
8428.39.80(pt.) Automated continuous action machines, other than belt or bucket type, for the placement of surface mount components on printed circuits or other substrates (pick and place equipment)	Machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada UK Mexico	Canada Germany Japan	<ul style="list-style-type: none"> • U.S. producers anticipate minimal impact • U.S. tariff will be free in 1999 	464

Table 4-2

Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8428.39.80(pt.) Automated continuous action machines, other than belt or bucket type, for the placement of components, other than surface mount components or electrical contact elements, on printed circuits, ceramic substrates, or other substrates (pick and place equipment)	Machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada UK Mexico	Canada Germany Japan	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	465
8428.90.80(pt.) Automated machines for the placement of components, other than surface mount components or electrical contact elements, on printed circuits, ceramic substrates, or other substrates (pick and place equipment) not elsewhere specified or included	Machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada Mexico Korea	Canada Mexico Japan	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 Outstanding antidumping order in place on certain imports from Japan (A-588-810) 	464
8428.90.80(pt.) Automated machines for the placement of surface mount components on printed circuits or other substrates (pick and place equipment) not elsewhere specified or included	Machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada Mexico Korea	Canada Mexico Japan	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Japan (A-588-810) 	465

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8428.90.8085(pt.) Automated machines for transport, handling, and storage of printed circuits and components to be mounted on such printed circuits, not elsewhere specified or included	Machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada Mexico Korea	Canada Mexico Japan	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 Outstanding antidumping duty order in place on certain imports from Japan (A-588-810) 	129
8431.39.8015(pt.) Parts of automated elevators and conveyors for transport, handling, and storage of printed circuits and components to be mounted on such printed circuits	Parts for machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada China Chile	Germany Canada UK	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	130
8431.39.8085(pt.) Parts of automated machines for transport, handling, and storage of printed circuits and components to be mounted on such printed circuits, not elsewhere specified or included	Parts for machines used to place components onto printed circuits or other substrates	None	100	Japan U.S. Germany	Canada Brazil Japan	Canada Japan Germany	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	130
8442.30.00(pt.) Printed circuit labeling machine (PCLM) panel mark, cover marker, or auto backside ink mark systems	Printing ink marks on electronic components	None	100	U.S. Japan Switz.	Korea Japan China	Israel UK Canada	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact Current U.S. tariff is free 	424

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8443.51.50(pt.) Digital half-tone color proofing device	No uses specific to IT identified	Printing industry	<1	U.S. Israel Japan	Japan UK Germany	France Japan UK	• U.S. tariff will be free in 1999	425
8443.59.50(pt.) Digital half-tone color proofing device	No uses specific to IT identified	Printing industry	<1	U.S. Israel Japan	Germany Canada Mexico	UK Japan Germany	• U.S. tariff will be free in 1999	425
8443.59.50(pt.) Screen printing machinery for applying photosensitive material to panels used in the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. Italy Switz.	Germany Canada Mexico	UK Japan Germany	• U.S. tariff will be free in 1999	152, 426
8443.59.50(pt.) Screen printing machinery for applying solder (liquid or paste), solder flux, adhesives, or sealants to printed circuits	Printed circuits	None	100	U.S. Japan UK	Germany Canada Mexico	UK Japan Germany	<ul style="list-style-type: none"> • U.S. tariff will be free in 1999 • Some U.S. producers anticipate increased foreign market opportunities • Some U.S. producers anticipate minimal impact 	131, 132, 152, 458
8456.10.10 Machine tools for working metal by removal of material, operated by laser or other light or photon beam processes	Semiconductor production Metal parts for other IT products	Motor vehicle parts Aircraft parts Metal parts for other non- IT products	<10	Japan U.S. Germany	Japan Canada Germany	Japan Germany Switz.	<ul style="list-style-type: none"> • Association for Manufacturing Technology opposes inclusion in ITA-II and anticipates adverse impact • Some U.S. producers anticipate adverse impact • Some U.S. producers anticipate minimal impact 	430

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Machines for the manufacture of information technology products for inclusion in the ITA-II process

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	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8456.10.10(pt.) Laser marking machines which mark, by removing metal, integrated circuits, printed circuits, integrated circuit cartridges and encapsulating packages containing such articles	Marking integrated circuits, printed circuits, integrated circuit cartridges and encapsulating packages	None	100	U.S. Germany Japan	Japan Canada Germany	Japan Germany Switz.	<ul style="list-style-type: none"> • Association for Manufacturing Technology opposes inclusion in ITA-II • U.S. producers anticipate increased foreign market opportunities • U.S. producers anticipate minimal impact 	428
8456.10.80(pt.) Laser marking machines which mark, by removing material, integrated circuits, printed circuits, integrated circuit cartridges, and encapsulating packages containing such articles	Marking integrated circuits, printed circuits, and integrated circuit cartridges and encapsulating packages	None	100	U.S. Germany Japan	Japan Canada Germany	Germany UK Neth.	<ul style="list-style-type: none"> • U.S. producers anticipate increased foreign market opportunities • U.S. producers anticipate minimal impact 	428
8456.10.80(pt.) Machine tools operated by laser or other photon beam processes, for use in the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. Germany Japan	Japan Canada Germany	Germany UK Neth.	<ul style="list-style-type: none"> • U.S. producers anticipate increased foreign market opportunities • U.S. producers anticipate minimal impact 	133
8456.99.90(pt.) Apparatus for dry-etching patterns on LCD substrates	Liquid crystal devices	None	100	Japan U.S.	Brazil Mexico Canada	Neth. Canada Germany	<ul style="list-style-type: none"> • One U.S. producer anticipates increased foreign market opportunities • There are only 2 U.S. producers 	193

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Machines for the manufacture of information technology products for inclusion in the ITA-II process

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	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8456.99.90(pt.) Machine tools operated by plasma arc processes, for use in the manufacturing of printed circuits, not elsewhere specified or included	Manufacture of printed circuits	None	100	U.S. Germany	Brazil Mexico Canada	Neth. Canada Germany	<ul style="list-style-type: none"> One U.S. producer does not want U.S. tariff to be reduced or eliminated (only three U.S. producers) 	134
8456.99.90(pt.) Machine tools for working any material by removing material, by electro- chemical, electron-beam, ionic beam or plasma arc processes for stripping or cleaning printed circuits, not elsewhere specified or included	Manufacture of printed circuits	None	100	U.S. Germany	Brazil Mexico Canada	Neth. Canada Germany	<ul style="list-style-type: none"> One U.S. producer does not want U.S. tariff to be reduced or eliminated (only three U.S. producers) 	135
8465.91.0090(pt.) Machines for scoring by sawing printed circuits, including equipment to separate individual substrates from panel (multipack form)	Sawing printed circuits	None	100	Japan Germany U.S.	Germany Canada Mexico	Canada Germany Taiwan	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	447
8465.91.0090(pt.) Sawing machines of a kind used to cut grooves in printed circuits	Cutting printed circuit panels	None	100	Japan Germany U.S.	Germany Canada Mexico	Canada Germany Taiwan	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	138

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8465.92.0090 Planing, milling, or molding (by cutting) machines for working, cork, bone, hard rubber, hard plastics, or similar hard materials, other than for woodworking	Manufacture of printed circuits	Used in the manufacture of plastic and rubber goods	<1	Japan U.S. Germany	Canada Mexico Germany	Germany Canada Italy	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	448
8465.92.0090(pt.) Routing equipment used for internal and external profiling during processing of printed circuits	Profiling printed circuits	None	100	Japan U.S. Germany	Canada Mexico Germany	Germany Canada Italy	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	160
8465.92.0090(pt.) Routers of a kind used to cut grooves in printed circuits	Cutting printed circuits	None	100	Japan U.S. Germany	Canada Mexico Germany	Germany Canada Italy	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	140
8465.95.0090 Machines for drilling or mortising cork, bone, hard rubber, hard plastics, or similar hard materials, not for woodworking	Manufacture of printed circuits	Manufacture of plastic and rubber goods	<1	Japan U.S. Germany	Taiwan UK Canada	Japan Italy Germany	<ul style="list-style-type: none"> Some members of The Society of the Plastics Industry oppose inclusion in ITA-II Some U.S. producers anticipate minimal impact 	450
8465.95.0090(pt.) Drilling machines of a kind used in the manufacturing of printed circuits	Manufacture of printed circuits	None	100	Japan U.S. Germany	Taiwan UK Canada	Japan Italy Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	136

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

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	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8465.95.0090(pt.) Numerically controlled drilling machines with spindle speed greater than 50,000 rpm, accepting drill bits 6.25 mm or less in diameter, other than for woodworking	Manufacture of printed circuits	None	100	Japan U.S. Germany	Taiwan UK Canada	Japan Italy Germany	<ul style="list-style-type: none"> Some members of The Society of the Plastics Industry oppose inclusion in ITA-II Some U.S. producers anticipate minimal impact 	139
8465.99.8095(pt.) Registration systems for aligning printed circuits during photographic or mechanical processing	Manufacture of printed circuits	None	100	None identified	Canada Mexico Malaysia	Germany Italy UK	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	145
8465.99.8095(pt.) Pneumatic presses for working cork, bone, hard rubber, or similar hard materials, other than wood	Manufacture of printed circuits	Manufacture of electrical hardware, jewelry, and ski equipment	50	Germany U.S. Canada	Canada Mexico Malaysia	Germany Italy UK	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate minimal impact 	445
8465.99.8095(pt.) Temperature or pressure-controlled lamination presses of a kind used for bonding layers in the manufacturing of multilayer printed circuits	Manufacture of printed circuits and plastic cards	None	100	Germany U.S. Canada	Canada Mexico Malaysia	Germany Italy UK	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact 	141
8465.99.8095(pt.) Scoring machines, other than sawing machines, of a kind used to cut grooves in printed circuits	Cutting grooves in printed circuits	None	100	Japan Germany U.S.	Canada Mexico Malaysia	Germany Italy UK	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	138

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8465.99.8095(pt.) Registration systems for punching holes or slots in film or prepreg used in the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. France Germany	Canada Mexico Malaysia	Germany Italy UK	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	140, 451, 452, 459
8465.99.8095(pt.) Machines for separating substrates (depanel machines)	Separating printed circuits during manufacturing process	None	100	Germany Japan	Canada Mexico Malaysia	Germany Italy UK	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	446
8466.92.10(pt.) Parts and accessories for machines of a kind used for scoring or scribing in the manufacture of printed circuits	Manufacture of printed circuits	None	100	Japan Germany U.S.	Canada Germany UK	Canada Germany Mexico	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities Current U.S. tariff is free 	143
8466.92.5090(pt.) Parts and accessories for machines of a kind used for scoring or scribing in the manufacture of printed circuits	Manufacture of printed circuits	None	100	Japan Germany U.S.	Canada Mexico UK	Canada Germany Japan	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	143
8466.93.5385(pt.) Parts and accessories for machines of headings 8456 to 8461 of a kind used in the manufacture of printed circuits	Manufacture of printed circuits	None	100	Japan U.S. Germany	Canada Japan Taiwan	Germany Japan Switz.	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities 	142

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8466.93.5385(pt.) Parts and accessories for machines of headings 8456 to 8461 apparatus of a kind used for dry-etching patterns on LCD substrates	Liquid crystal devices	None	100	Japan U.S.	Canada Japan Taiwan	Germany Japan Switz.	<ul style="list-style-type: none"> One U.S. producer anticipates increased foreign market opportunities There are only 2 U.S. producers 	194
8466.93.9585 Parts and accessories for use with the machines of headings 8456 to 8461, other than bed, base, table, head, tail, saddle, etc., not for metalworking machine tools for cutting, grinding, or finishing gears, not for use with the machines of subheadings 8456.10.60, 8456.91, 8456.99.10, or 8456.99.70, not of cast iron, semi-finished	Manufacture of printed circuits	Production of various products	<1	Japan U.S. Germany	Canada Mexico Korea	Japan Canada Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. trade association opposes inclusion in ITA-II and anticipates adverse impact Some U.S. producers anticipate increased foreign market opportunities 	455
8466.93.9585(pt.) Parts and accessories for machines of headings 8456 to 8461 of a kind used in the manufacture of printed circuits	Manufacture of printed circuits	None	100	Japan U.S. Germany	Canada Mexico Korea	Japan Canada Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities 	142
8477.10.90(pt.) Machines for encapsulating or hermetically sealing components on a printed circuit board by injection molding	Manufacture of printed circuits	None	100	None identified	Mexico Canada UK	Japan Germany Canada	<ul style="list-style-type: none"> One major U.S. producer opposes inclusion in ITA-II and cites national security concern 	122

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

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	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8477.59.80(pt.) Liquid encapsulate molding machines for encapsulation in the assembly of printed circuits	Manufacture of printed circuits	None	100	None identified	Germany Mexico Canada	Germany Canada France	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	144
8477.80.00(pt.) Registration systems for aligning image forming films and plastics, other than hard plastics, to printed circuits	Manufacture of printed circuits and plastic cards	None	100	Germany U.S. Canada	Canada Mexico UK	Germany Japan Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some members of The Society of the Plastics Industry oppose inclusion in ITA-II 	145
8477.80.00(pt.) Vacuum assisted presses for the lamination of individual printed circuits into multilayer printed circuits	Manufacture of printed circuits	None	100	None identified	Canada Mexico UK	Germany Japan Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some members of The Society of the Plastics Industry oppose inclusion in ITA-II 	146
8477.80.00(pt.) Registration systems for aligning plastics material, other than hard plastics, in the manufacturing of capacitors	Manufacture of printed circuits and plastic cards	None	100	Germany U.S. Canada	Canada Mexico UK	Germany Japan Canada	<ul style="list-style-type: none"> Some members of The Society of the Plastics Industry oppose inclusion in ITA-II 	202
8477.80.00(pt.) Registration systems for punching holes or slots in film or prepreg used in the manufacturing of printed circuits	Manufacture of printed circuits and plastic cards	None	100	Germany U.S. Canada	Canada Mexico UK	Germany Japan Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some members of The Society of the Plastics Industry oppose inclusion in ITA-II 	452, 459

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8477.90.85 Parts of machinery of heading 8477 other than subheadings 8477.10.70, 8477.40.40, or 8477.59.40, other than base, bed, platen, etc., other than barrel screws, other than hydraulic assemblies	Assembly of printed circuits	Manufacture of rubber and plastic products	<1	U.S. EU Japan	Canada Mexico Japan	Canada Germany France	<ul style="list-style-type: none"> Some members of The Society of the Plastics Industry oppose inclusion in ITA-II 	460
8477.90.8595(pt.) Parts of liquid encapsulate molding machines for encapsulation in the assembly of printed circuits	Assembly of printed circuits	None	100	U.S. EU Japan	Canada Mexico UK	Canada Germany Japan		147
8477.90.8595(pt.) Parts of vacuum assisted presses for the lamination of individual printed circuits into multilayer printed circuits	Assembly of printed circuits	None	100	U.S. EU Japan	Canada Mexico UK	Canada Germany Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some members of The Society of the Plastics Industry oppose inclusion in ITA-II 	148
8479.81.00 Machines for treating metal, including electric wire coil- winders	Speaker coils Voice coils	Electromagnets	10	Switz. Italy Japan	Mexico Singapore Canada	Italy Japan Germany	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	462
8479.81.00(pt.) Winders for capacitor manufacturing	Electronic capacitors	None	100	Switz. Italy Japan	Mexico Singapore Canada	Italy Japan Germany	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	203
8479.82.0040(pt.) Apparatus for mixing of etchant solutions	Manufacture of printed circuits	Chemical milling/etching	50	U.S. Taiwan Korea	Canada Mexico UK	UK Germany Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	149, 150

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8479.89.9797 Machines and mechanical appliances having individual functions not specified or included elsewhere in Chapter 84.	Manufacture of printed circuits, liquid crystal devices, electronic components	Manufacture of various products	<1	U.S. Japan EU	Canada Mexico Korea	Japan Germany Canada		153, 158, 159, 195
8479.89.9797(pt.) Machines for applying liquid solder, adhesives, or sealants to printed circuits (by syringe)	Manufacture of printed circuits	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities 	124, 152
8479.89.9797(pt.) Appliances for applying, by roller coating, photosensitive material to panels used in the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. Italy Switz.	Canada Mexico Korea	Japan Germany Canada		152
8479.89.9797(pt.) Appliances for treating with chemicals, by immersion, panels used in the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities 	121, 124, 152
8479.89.9797(pt.) Machines for applying liquids, by immersion, to panels used in manufacturing or processing printed circuits	Manufacture of printed circuits	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities 	123

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8479.89.9797(pt.) Apparatus for the regeneration of etchant solutions	Manufacture of printed circuits	Motor vehicles	50	U.S. Taiwan Korea	Canada Mexico Korea	Japan Germany Canada	• Some U.S. producers anticipate increased foreign market opportunities	119, 150
8479.89.9797(pt.) Chemical regeneration equipment used to extend the life of strippers, developers, etchants, and other chemical solutions during the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. Taiwan Korea	Canada Mexico Korea	Japan Germany Canada	• Some U.S. producers anticipate increased foreign market opportunities	119
8479.89.9797(pt.) Paper masking machines for capacitor manufacturing	Capacitor manufacturing	None	100	None identified	Canada Mexico Korea	Japan Germany Canada		198
8479.89.9797(pt.) Metering and mixing equipment used to extend the life of strippers, developers, etchants, and other chemical solutions during the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. Taiwan Korea	Canada Mexico Korea	Japan Germany Canada	• Some U.S. producers anticipate increased foreign market opportunities	119, 151

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8479.89.9797(pt.) Automated machines for the placement or removal of components, or electrical contact elements, on printed circuits, ceramic substrates, or other substrates (automated component placement systems or pick and place equipment)	Assembly of printed circuits	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	154, 464, 465
8479.89.9797(pt.) Automated machines for the placement or alignment of printed circuits during processing (registration equipment)	Manufacture of printed circuits	None	100	Germany U.S. Canada	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	155
8479.89.9797(pt.) Machines for cleaning or texturing the surface of printed circuits by mechanical abrasion	Manufacture of printed circuits	None	100	U.S. Taiwan Korea	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities 	156
8479.89.9797(pt.) Apparatus for wet etching, developing, stripping, or cleaning printed circuits and their connectors	Manufacture of printed circuits	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada		174
8479.89.9797(pt.) Apparatus for chemical vapor deposition on LCD substrates	Manufacture of liquid crystal devices	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada		189

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8479.89.9797(pt.) Wet processing equipment (other than spray type)	Manufacture of printed circuits	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada		404
8479.89.9797(pt.) Hot air solder leveling (HASL) equipment	Manufacture of printed circuits	None	100	Japan U.S. EU	Canada Mexico Korea	Japan Germany Canada		419, 458
8479.89.9797(pt.) Machines to dispense thermal grease onto electronic integrated circuits and similar components prior to mounting on printed circuits or other substrates	Manufacture of electronic components	None	100	EU Japan	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Unable to locate U.S. producer 	466
8479.90.97 Parts of machines and mechanical appliances in heading 8479 not elsewhere specified or included	Manufacture of printed circuits	Manufacture of particle and fiber board, public works machines	<1	EU Japan U.S.	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	196, 467, 469
8479.90.9785(pt.) Parts of machines for cleaning printed circuits by immersion	Manufacture of printed circuits	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	121

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8479.90.9785(pt.) Parts of apparatus for coating dry film photo resist, photosensitive layers, soldering paste, or other adhesive materials on substrates or other components during the manufacture of printed circuits	Manufacture of printed circuits	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	162
8479.90.9785(pt.) Parts of apparatus for wet etching, developing, stripping, or cleaning printed circuits and their connectors	Manufacture of printed circuits and their connectors	None	100	U.S. Germany Japan	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	175
8479.90.9785(pt.) Parts of machines for cleaning the copper surfaces of printed circuits during the manufacturing	Manufacture of printed circuits	None	100	U.S. Japan Taiwan	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	164
8479.90.9785(pt.) Parts of apparatus for chemical vapor deposition on LCD substrates	Manufacture of liquid crystal displays	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	190

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8479.90.9785(pt.) Parts of chemical regeneration equipment used to extend the life of strippers, developers, etchants, and other chemical solutions during the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. Taiwan Korea	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	120
8479.90.9785(pt.) Parts of apparatus for the regeneration and mixing of etchant solutions	Manufacture of printed circuits	Motor vehicles	100	U.S. Taiwan Korea	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	161
8479.90.9785(pt.) Parts of appliances for treating with chemicals, by immersion, panels used in the manufacturing of printed circuits	Manufacture of printed circuits	None	100	U.S. Italy Switz.	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	162
8479.90.9785(pt.) Parts of automated machines for the placement of components or electrical contact elements, on printed circuits (automated component placement systems)	Assembly of components onto printed circuits	None	100	U.S. Japan Germany	Canada Mexico Korea	Japan Germany Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	163

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8514.10.80(pt.) Resistance heated rapid thermal processors, other than for manufacture of semiconductor devices on semiconductor wafers	Manufacture of printed circuits	Manufacture of iron and steel, chemicals, petroleum	<5	U.S. EU Japan	Korea Singapore Philippines	Japan Italy Liechtenstein	<ul style="list-style-type: none"> Principal U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	476
8514.20.80(pt.) Induction or dielectric furnaces and ovens other than for the manufacture of semiconductor devices on semiconductor wafers	Manufacture of printed circuits	Manufacture of iron and steel, petrochemicals, ammonia	5	EU U.S. Japan	Canada Taiwan Korea	UK Japan Norway	<ul style="list-style-type: none"> Principal U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	165
8514.20.80(pt.) Induction or dielectric furnaces for sealing integrated circuits and integrated circuit cartridges	Manufacture of printed circuits	None	100	Japan U.S. Taiwan	Canada Taiwan Korea	UK Japan Norway	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	477
8514.20.80(pt.) Induction heated temperature cycle chamber	Manufacture of electronic components	Manufacture of pharmaceuticals, petrochemicals, nitric acid	5	EU U.S. Japan	Canada Taiwan Korea	UK Japan Norway	<ul style="list-style-type: none"> Principal U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	479
8514.30.20(pt.) Rapid thermal processors	Manufacture of semiconductors	None	100	U.S. Germany Japan	Taiwan Japan Korea	Japan Germany Canada	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact Principal U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	476

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8514.30.80 Other electric furnaces and ovens not for rapid heating of semiconductor wafers, not resistance, induction, or dielectric heated	Manufacture of printed circuits and electronic components	Manufacture of motor vehicles, petrochemicals, chemicals	<1	U.S. EU Japan	Mexico Japan Korea	Italy Germany Canada	<ul style="list-style-type: none"> Principal U.S. producers anticipate increased foreign market opportunities 	166, 167, 478, 479
8514.30.80(pt.) Infrared heated temperature cycle chamber	Manufacture of printed circuits and electronic components	Manufacture of pharmaceuticals, petrochemicals, nitric acid production	5	EU U.S. Japan	Mexico Japan Korea	UK Japan Norway	<ul style="list-style-type: none"> Principal U.S. producers anticipate increased foreign market opportunities 	479
8514.30.80(pt.) Infrared heated solder reflow ovens	Manufacture of printed circuits and electronic components	None	100	U.S. EU Japan	Mexico Japan Korea	Italy Germany Canada	<ul style="list-style-type: none"> Principal U.S. producers anticipate increased foreign market opportunities 	479
8514.90.80 Parts of industrial or laboratory electric furnaces and ovens, other than induction, dielectric, or resistance furnaces and ovens for the manufacture of semiconductor devices on wafers or other ovens for the rapid heating of wafers	Manufacture of furnaces and ovens for printed circuit or electronic component production	Manufacture of furnaces and ovens for plastics, food, pharmaceutical production	5	U.S. Germany	Japan Canada Germany	Germany UK Japan	<ul style="list-style-type: none"> Principal U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	168
8515.19.00 Electric brazing or soldering machines and apparatus other than soldering irons and guns	Manufacture of printed circuits and electronic components	Manufacture of fabricated metal products	5	U.S. Germany Japan	Mexico Malaysia Korea	Japan UK Neth.	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	480

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8515.19.00(pt.) Machines for soldering components on printed circuits, wave soldering equipment, and apparatus used to bring molten solder into contact with printed circuits with components assembled thereon	Manufacture of printed circuits	None	100	U.S. Germany Japan	Mexico Malaysia Korea	Japan UK Neth.	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	124, 169, 170
8515.90.40 Parts of electric, laser, or other light or photon beam, ultrasonic, electron beam, etc., brazing, soldering or hot metal or cermet spraying machines	Manufacture of printed circuits	Manufacture of welding machines for metal working	<1	Japan Germany Canada	Canada Mexico Colombia	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	485
8515.90.40(pt.) Parts of machines for soldering components on printed circuits	Manufacture of printed circuits	None	100	U.S. Germany Japan	Canada Mexico Colombia	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	173
8543.30.00 Machines and apparatus for electroplating, electrolysis, or electrophoresis	Manufacture of printed circuits, electrical contacts, and microcircuits	Industrial chemicals Refining and electroplating of metals	10	HK Japan Germany	Mexico Korea Taiwan	HK Japan Germany	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact 	488
8543.30.00(pt.) Apparatus for finger plating on printed circuits	Manufacture of printed circuits	None	100	U.S. HK Korea	Mexico Korea Taiwan	HK Japan Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	174

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8543.30.00(pt.) Apparatus used to plate the edge connectors during printed circuit processing	Manufacture of printed circuits	None	100	HK Japan Germany	Mexico Korea Taiwan	HK Japan Germany		171
9002.19.00 Mounted objective lenses and parts and accessories, other than for cameras, projectors, or photographic enlargers or reducers	Semiconductor manufacturing and testing equipment Statistical process control instrumentation Scientific instruments	None	100	Germany Japan Austria	Mexico Neth. Canada	Japan Neth. Germany	<ul style="list-style-type: none"> Small U.S. producers may be adversely affected Outstanding antidumping duty order in place on certain imports from Japan (A-588-819) 	499
9002.19.00(pt.) Lenses for step and repeat aligners of subheading 9010.42	Semiconductor manufacturing equipment	None	100	Japan Neth. Germany	Mexico Neth. Canada	Japan Neth. Germany	<ul style="list-style-type: none"> Small U.S. producers may be adversely affected 	499
9010.90.90(pt.) Parts and accessories for apparatus for the projection or drawing of circuit patterns on sensitized substrates for the manufacture of printed circuits	Parts of machines used to manufacture printed circuits	None	100	U.S. Japan EU	Japan Germany France	Japan Neth. Switz.	<ul style="list-style-type: none"> Outstanding antidumping order in place on certain imports from Japan (A-588-840) 	179
9010.90.90(pt.) Parts and accessories for CNC direct imaging systems for the projection or drawing of circuit patterns on sensitized substrates for the manufacture of printed circuits	Parts of machines used to manufacture printed circuits	None	100	U.S. Japan EU	Japan Germany France	Japan Neth. Switz.		510

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9022.19.00(pt.) Apparatus based on the use of X-rays, designed to inspect concealed solder joints on printed circuits	Inspection equipment for printed circuits	None	100	Japan Germany Austria	UK Malaysia HK	Germany Japan Neth.	• U.S. tariff will be free in 1999	181
9030.39.00(pt.) Apparatus for measuring or checking electrical quantities, on printed circuits, without a recording device	Not applicable	None	100	U.S. UK Japan	UK Malaysia HK	Canada Japan UK	• Industry association supports inclusion in ITA-II	182
9030.83.00(pt.) Apparatus for measuring or checking electrical quantities on printed circuits, with a recording device	Not applicable	None	100	U.S. EU Japan	Japan Korea Ireland	Japan Germany UK		182, 184
9030.89.00(pt.) Electrical bare board test apparatus, without a recording device, used to determine continuity or non-continuity of a finished printed circuit	Not applicable	None	100	U.S. UK Japan	Japan Korea Germany	Japan UK Germany	• Industry association supports inclusion in ITA-II	183, 185
9030.90.68(pt.) Printed circuit assemblies of instruments and apparatus for measuring or checking printed circuits	Printed circuit assemblies for machines used to measure or check printed circuits	None	100	U.S. EU Japan	Japan UK Germany	UK Canada Germany		186

Table 4-2
Machines for the manufacture of information technology products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9030.90.8830(pt.) Parts and accessories of instruments and apparatus, without a recording device (other than multimeters), for measuring or checking electrical voltage, current, or resistance on printed circuits	Instruments and apparatus for measuring or checking electrical voltage, current, or resistance of printed circuits	None	100	U.S. UK Japan	Japan UK Germany	France Japan Barbados	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	186
9030.90.8855(pt.) Parts and accessories of instruments and apparatus for measuring or checking electrical quantities on printed circuits, with a recording device, other than such instruments or apparatus for measuring or checking semiconductor wafers or devices	Instruments and apparatus for measuring or checking electrical quantities on printed circuits	None	100	U.S. UK Japan	Japan UK Germany	Japan Germany Malaysia	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	186
9030.90.8860(pt.) Parts and accessories of instruments and apparatus for measuring or checking electrical quantities on printed circuits, not elsewhere specified or included	Instruments or apparatus for measuring or checking printed circuits	None	100	U.S. UK Japan	Japan Germany France	Japan Germany UK	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	186

CHAPTER 5

Components, Subassemblies, and Accessories

Robert Carr

Introduction

The products in this chapter consist of a broad set of finished information technology (IT) and non-IT items as well as components, subassemblies, and manufacturing inputs. To facilitate examination and discussion, products within the chapter have been separated by function into the subgroups presented in table 5-1. Table 5-2, at the end of the chapter, lists all of the products included in this chapter, describes the products and their uses, identifies the major producing countries and U.S. trading partners, and provides trade-related information gathered from U.S. industry and government sources.

Table 5-1
Major product groupings: Components, subassemblies, and accessories

Group	Principal products/uses
Primary and storage cells and batteries, including battery packs and parts thereof	<ul style="list-style-type: none"> main power source in portable IT products such as consumer electronics, radios, cameras, notebook computers, and cellular telephones backup source of power in certain telecommunications and computer systems primary power source in non-IT applications such as flashlights, toys, clocks, home appliances, and military equipment backup power source in electric generators
Electrical equipment and components	<ul style="list-style-type: none"> IT applications such as computers, telecommunications equipment, consumer electronics, and scientific instruments non-IT applications include electrical relays, lighting and heating equipment, household appliances, power distribution lines, and industrial process controls
Optical instruments and components	<ul style="list-style-type: none"> optical fibers used in communications networks and medical equipment as well as automobile lighting and sensors liquid crystal displays (LCDs) and flat panel displays (FPDs) used in products such as consumer electronics, cellular phones, notebook computers, industrial equipment, and household appliances components of instruments with a variety of measuring, checking, inspecting, and analyzing applications
Inputs and packaging materials	<ul style="list-style-type: none"> photoresist, photomasks and sputtering targets used in the manufacture of printed circuits aluminum rivets, screws, and washers used in the production of capacitors and computers as well as non-IT applications such as motor vehicles, aircraft, and building construction trays, tubes, and plastic containers used to package IT as well as non-IT goods
Other products	<ul style="list-style-type: none"> parts of ink jet printers, printer ink, and typewriter ribbons computer disk substrates flight data recorders and assemblies electron tubes

Source: Compiled by USITC staff.

Trade Patterns and Market Opportunities

The United States is a major producer and consumer of many of the articles in this chapter. With the exception of Mexico, China, and Brazil, all of the major U.S. trading partners in this chapter are signatories to the ITA. In 1997, U.S. imports of the products in this chapter were approximately \$10.9 billion, with Japan representing the largest source of imports. Japan accounted for approximately \$3.0 billion, or 27 percent of total U.S. imports. Mexico and China were the second- and third-largest import sources and accounted for 35 percent of the total. The EU supplied \$1.5 billion of U.S. imports, and Canada, imports from which receive duty-free status under the U.S.-Canada Free Trade Agreement (FTA) and the NAFTA, accounted for \$1.1 billion. As a group, these trading partners comprised nearly 85 percent of total U.S. imports.¹²³

U.S. exports in 1997 of items in this chapter were valued at \$10.2 billion. The major export markets for the United States included Mexico, Canada, Japan, and the EU. The United States' NAFTA partners accounted for \$3.7 billion, or over one-third of the exports in this chapter. The EU and Japan accounted for roughly \$2.1 billion and \$690 million of U.S. exports, respectively. Other significant markets for U.S. exports were Taiwan, Korea, Singapore, and Hong Kong. Many of the products in this chapter submitted for inclusion in the ITA-II process comprise only part of the 8- or 10- digit *HTS* category in which they are classified. As such, trade figures are likely to be overstated.

Increased market access in the United States as a result of tariff elimination under the ITA-II process would likely be modest for most of the products in this chapter. In general, the U.S. tariffs on products in this chapter are already relatively low. Most of these products enter the United States duty-free or face tariffs of less than 5 percent while a few products such as certain electrical conductors, aluminum rivets, screws, and washers, certain transformers, and optical fibers face tariffs as high as 6 to 7 percent.¹²⁴

In most of the primary export markets for products in this chapter, U.S. goods already encounter low or non-existent tariff barriers. The United States receives or will receive duty-free treatment under the FTA and the NAFTA for exports to Canada and Mexico, Japan has zero tariffs on most of the items, and the EU maintains relatively low tariffs on many of the items. For products in this chapter, the greatest opportunities for increased market access resulting from tariff elimination are likely to be in East and Central Asian economies that still maintain relatively high tariffs. India and Indonesia's tariffs on most of the products in this chapter are set at 40 percent, while those of Thailand and the Philippines exceed 20 percent. Korea's tariffs range from 6.5 to 13 percent, and Singapore's tariffs range from 6 to 10 percent. However, as discussed in the following sections, in certain circumstances, nontariff barriers may mitigate gains in market access as a result of tariff elimination. In addition, any increases in market access in certain East Asian economies based on tariff elimination may be reduced by the effects of the Asian financial crisis.

¹²³ All trade data are based on official statistics of the U.S. Department of Commerce (USDOC).

¹²⁴ Unless otherwise indicated, tariffs cited in this report are the final Uruguay Round concession rates which go into effect Jan. 1, 1999. *Most-Favoured Nation Tariff Schedules, Annexes to Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations* (Marrakesh Protocol), Apr. 15, 1994.

Batteries

The United States is a significant net importer of products in this group which includes primary cells, primary batteries, storage batteries (rechargeables), battery packs, and parts.¹²⁵ In 1997, U.S. imports were \$1.7 billion. Japan was by far the largest foreign supplier to the U.S. market, accounting for roughly 50 percent of total imports. Other large sources of U.S. imports include Taiwan, as well as Mexico and China. Storage batteries and packs, principally nickel-cadmium and lead-acid, comprised the bulk of U.S. imports. Imports of nickel-cadmium storage batteries and packs, which are widely employed in powering laptop computers, cellular telephones, and portable consumer electronics, reached nearly \$700 million in 1997.

U.S. exports to Mexico accounted for \$217 million, or 22 percent of the \$972 million total in 1997. Other large markets for U.S. battery exports were the EU at approximately \$200 million and Canada at \$150 million. By product, the largest U.S. exports were manganese dioxide primary cells, batteries, and packs, and lead-acid and nickel-cadmium storage batteries and packs. Manganese dioxide and nickel-cadmium batteries are used extensively to power IT products while lead-acid batteries are reportedly more often employed in powering industrial applications.¹²⁶

U.S. industry opinion varies on the inclusion of battery cells and packs in the ITA. Certain U.S. producers are in favor of tariff elimination for primary battery cells and packs.¹²⁷ However, opinion is divided on the inclusion of rechargeable cells and packs. Two U.S. firms anticipate increased competition from imports, especially from producers in Japan who dominate the global rechargeable battery market.¹²⁸ Energizer, a U.S. producer of nickel-metal hydride and nickel-cadmium rechargeable cells, opposes the inclusion of these rechargeable cells in the agreement. Energizer states that if U.S. tariffs are eliminated, increased cell imports would harm its sales, and it would not be able to make up the lost sales via increased exports.¹²⁹ In addition, some U.S. producers attempting to enter the market for lithium and nickel-cadmium rechargeables claim that U.S. tariffs offer them some protection while they develop and expand these product lines.¹³⁰

Motorola, a U.S. battery pack producer, supports the inclusion of rechargeable packs and cells in the ITA, citing anticipated foreign market opportunities for its pack exports, particularly in high-tariff markets with significant growth potential such as India, Indonesia, and the Philippines.¹³¹ Black & Decker, a U.S. battery cell and pack consumer and a pack producer, supports the inclusion of cells and packs in the ITA, citing significant tariff barriers in parts of Europe and Asia to its pack exports.¹³² Philips, a consumer of battery packs and cells, also supports the inclusion of rechargeable cells and packs.¹³³ The Telecommunications Industry Association (TIA) and the ITA Coalition (ITAC), both of which represent rechargeable battery pack producers and rechargeable battery cell and pack consumers, also support these items' inclusion in the ITA.¹³⁴ The Electronic Industries Alliance (EIA), which represents rechargeable battery cell and pack producers and consumers,

¹²⁵ Battery pack producers incorporate cells or batteries into packs which add value to batteries by indicating remaining battery life, identifying charge and discharge rates, and enhancing safety. Pat Milburne, Motorola Corp., testimony at USITC hearing on inv. 332-390, Mar. 19, 1998.

¹²⁶ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹²⁷ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹²⁸ Ibid.

¹²⁹ Joe Tisone, Energizer Power Systems, written submission to USITC on inv. 332-390, Mar. 23, 1998.

¹³⁰ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹³¹ Pat Milbourne, Motorola Corp., testimony at USITC hearing on inv. 332-390, Mar. 19, 1998, and fax to USITC staff, Mar. 1998.

¹³² Linda H. Biagioni, Black & Decker, written submission to USITC on inv. 332-390, Jan. 30, 1998.

¹³³ Philips Electronics North America Corporation, written submission to USITC on inv. 332-390, Mar. 24, 1998.

¹³⁴ Matthew J. Flanigan, TIA; and Joseph Tasker, Compaq Computer Corporation, representing ITAC; testimony at USITC hearing on inv. 332-390, Mar. 19, 1998.

supports their inclusion.¹³⁵

Tariff elimination would also level competition between battery and battery pack manufacturers with vertically integrated IT producers. Currently, vertically integrated manufacturers can import batteries and packs duty-free into ITA participant economies as long as the batteries/packs are incorporated into a product covered under the ITA, such as laptop computers and cellular phones. Tariffs on comparable products in the United States range from 2.5 to 3.5 percent.

Nontariff barriers identified by U.S. industry for products in this group relate to the Customs Convention on the ATA Carnet for the Temporary Admission of Goods and standards and certifications.¹³⁶ Under the ATA (Admission Temporaire/Temporary Admission) importers may forego duties for up to a year when goods are used for a variety of purposes such as trade shows, exhibitions, repair, and other professional purposes when accompanied by an internationally recognized customs document. One U.S. firm is interested in ITA wide adoption of the convention, thereby including the few ITA participants that do not yet adhere to the ATA.¹³⁷ Another firm states that standards and certification requirements in certain markets impose a burden on its time and resources, and the harmonization or elimination of many of these standards may remove much of this burden.¹³⁸

Electrical equipment

In 1997, U.S. imports of the electrical equipment and components in this chapter were \$3.6 billion. Products from Mexico and Canada, which receive or are scheduled to receive duty-free treatment in the United States under the FTA and NAFTA, represented nearly half of the U.S. total. Imports from Mexico and Canada in 1997 were \$1.2 billion and \$400 million, respectively. China was the second largest source of U.S. imports in 1997 at \$510 million, while the EU and Japan were also significant sources. Combined, these five trading partners represented over 80 percent of U.S. imports. Imports of ballasts, transformers, and inductors totaled over \$1.6 billion and insulated electrical conductors were \$1.3 billion, with Mexico and Canada supplying the largest shares. Products such as amplifiers, electrical insulators, and insulating fittings comprised the remaining \$700 million in imports, and Japan, China, the EU, Mexico, and Canada were the major suppliers.

In 1997, U.S. exports of electrical equipment and components were \$4.8 billion. Mexico, Canada, and the EU accounted for nearly 60 percent of the U.S. total. Other significant markets for U.S. exports were Japan, Korea, and Taiwan. Exports of ballasts, transformers, and inductors were nearly \$1.4 billion in 1997, of which Mexico received approximately half. Exports of insulated electrical conductors totaled roughly \$2 billion, of which Mexico, Canada, and the EU received nearly two thirds. The leading markets for the remainder of the products in this grouping, such as programmable controllers, insulators, amplifiers, and insulating fittings, were Canada, Mexico, the EU, Japan, Korea, and Taiwan.

¹³⁵ Peter F. McClosky, EIA, testimony at USITC hearing on inv. 332-390, Mar. 19, 1998. McClosky acknowledged in his testimony that not all of EIA's members support the inclusion of rechargeable battery cells and packs in the ITA.

¹³⁶ The ATA Carnet can be used in Algeria, Australia, Bulgaria, Canada, Cyprus, the Czech Republic, the EU, Gibraltar, Hong Kong, Hungary, Iceland, India, Israel, Ivory Coast, Japan, Korea, Malaysia, Malta, Mauritius, New Zealand, Norway, Poland, Romania, Senegal, Singapore, Slovakia, Slovenia, South Africa, Sri Lanka, Switzerland, Thailand, and Turkey. U.S. Council for International Business, *Trade Secrets: The Exports Answer Book*, found at http://www.Itbn.com/Imex/Faq_23.html, retrieved Apr. 29, 1998.

¹³⁷ Mary Lou Lackey, Motorola Corp., written submission to USITC on inv. 332-390, Mar. 24, 1998.

¹³⁸ Specific markets were not cited. Ward Klein, Energizer, Eveready Battery Company of America, written submission to USITC on inv. 332-390, Mar. 23, 1998.

Tariff elimination should lead to increased market opportunities in a number of high-tariff countries such as India, Indonesia, Malaysia, the Philippines, Thailand, Korea, and Australia. The EU's tariffs for products in this grouping range from zero to 4.7 percent. Japan's tariffs for many of the products in this group is zero, but Japan maintains a duty of 4.8 percent on electrical conductors. Tariffs of 4.4 percent for programmable controllers were specifically mentioned by U.S. manufacturers as a concern in the Czech Republic and Slovakia.¹³⁹ U.S. tariffs range from free to 6.6 percent, with most rates under 4 percent. Products with higher U.S. tariffs are certain transformers at 6.6 percent, certain electric conductors at 5.3 percent, and certain insulated fittings at 4.6 percent. U.S. rates on all other products in this group are below 4 percent.

U.S. producers have noted several nontariff barriers in ITA economies that may impede increased market access resulting from tariff elimination. A U.S. producer of programmable controllers has noted that insufficient intellectual property protection exists for its products in Taiwan, Hong Kong, India, and Japan.¹⁴⁰ Programmable controllers incorporate software that allows the controller to be programmed for specific uses in industrial automation control. According to this company, many software makers place export restrictions on programmable controller manufacturers because the intellectual property is not adequately protected in certain countries. As a result, an exporter of programmable controllers must occasionally modify an existing product which can then result in a less attractive product and restricted market opportunities. U.S. industry representatives also noted that time-consuming customs procedures related to product and shipment inspection and verification for programmable controllers in the Philippines pose significant trade barriers. In addition, Korea was noted for application of consumer and commercial products standards to industrial products.¹⁴¹

Another U.S. firm noted market access difficulties for ballasts caused by discriminatory government procurement in certain markets.¹⁴² According to this firm, ballast procurement by government entities for lighting systems in public buildings may not be open to non-domestic suppliers. In addition, this firm also mentioned the trade barrier created by the lack of adherence to the Customs Convention on the ATA Carnet for the Temporary Admission of Goods by ITA participants.¹⁴³

One U.S. producer expressed concern about a customs procedure problem resulting from ITA implementation language.¹⁴⁴ In the ITA, a "for use" provision was created for insulated electrical conductors "of a kind used for telecommunications." In practice, those articles used for telecommunications equipment are difficult to distinguish from those with other uses. The company noted that while the "for use" phrase is intended to be a description and not an end-use test, nonetheless it is burdensome. According to this producer, including all of these types of wire and cable in the ITA would eliminate this burden.¹⁴⁵

Optical instruments and components

In 1997, the United States imported \$1.0 billion in optical instruments and components covered in this chapter. The primary sources of U.S. imports were the EU, Japan, Canada, and China. Combined, these four sources accounted for over 80 percent of U.S. imports for the group. Imports of a basket category, including certain flat panel displays (FPDs), had the largest import total at nearly \$540 million. China was the largest

¹³⁹ Industry representative, written submission to USITC staff, Mar. 1998.

¹⁴⁰ Ibid.

¹⁴¹ Ibid.

¹⁴² Electrical and electronic ballasts are used to control lighting systems in commercial and residential structures.

¹⁴³ Specific markets were not cited. U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹⁴⁴ Sarah Fogerty, AMP Inc., written submission to USITC on inv. 332-390, Mar. 3, 1998.

¹⁴⁵ Ibid.

supplier of these devices, accounting for \$175 million, or roughly one third of the total. Other principal suppliers were Japan, the EU, and Mexico. Optical fibers were the next largest group, totaling \$235 million, of which Canada and Japan supplied nearly 70 percent. A significant portion of the U.S. imports of optical fibers from Canada were manufactured in facilities of the largest U.S.-based producer.

In 1997, U.S. exports of optical instruments and components included in this chapter were valued at \$1.1 billion. The EU was the largest U.S. export market, accounting for \$290 million of the total. Canada, Japan, China and Korea were other large U.S. export markets. The products with the largest export value for this group were optical fibers valued at \$460 million and parts and accessories of FPDs, LCDs, and error verification machines for printed circuits valued at \$280 million. The two principal markets for U.S. optical fiber were Canada and the EU, each receiving roughly \$100 million in U.S. exports. Other significant markets include Japan, China, and Brazil. Major markets for U.S. exports of parts and accessories of FPDs, LCDs, and error verification machines for printed circuits were the EU, Japan, Canada, Taiwan, and Turkey.

U.S. exports of optical instruments and components currently face significant tariff barriers in a number of ITA participant economies. Tariff elimination should lead to increased market opportunities in countries such as India, Indonesia, and Thailand, which all have tariffs above 30 percent as well as the Philippines, Malaysia, and Korea, which also maintain relatively high tariffs. Japan maintains no duties on these products, while the EU's tariffs range from free to 6.7 percent. U.S. tariffs for this group range from 2.6 to 6.7 percent. The United States applies tariffs of 6.7 percent on optical fibers, 4.5 percent on certain optical products (photonics), and 4.1 to 5.0 percent on lens blanks and other elements of glass.

Numerous nontariff barriers noted by U.S. industry may moderate any increased market access opportunities resulting from ITA tariff elimination. Barriers that have been identified are primarily associated with optical fiber and photonics. A major U.S. producer of optical fiber expressed concern that existing nontariff barriers in ITA participant countries as well as continued tariff and nontariff barriers in non-ITA countries may result in limited opportunities for increases in U.S. exports.¹⁴⁶ At the same time, elimination of the 6.7-percent tariffs on U.S. imports reportedly may result in reduced domestic sales by U.S. firms. Optical fiber is employed principally in the production of fiber optic cable, which in turn is used in telecommunications networks. A U.S. producer has noted that telecommunications service monopolies in many countries, whether or not government controlled, often favor domestic suppliers. The United States Trade Representative has identified such behavior in a number of major ITA and non-ITA markets including the EU, Korea, India, Japan, China, and Brazil.¹⁴⁷ Subsidies also present a significant trade barrier. According to one U.S. firm, in order to foster the development of a domestic industry, foreign governments subsidize the production of optical fiber.¹⁴⁸ A third barrier is technology transfer. According to the industry representative, certain governments encourage the transfer of fiber optic technology or the construction of a local manufacturing facility in order to sell into that market.¹⁴⁹ In addition, lack of adequate intellectual property protection for optical fiber was specifically noted in China, Brazil, and India by a U.S. firm.¹⁵⁰

The major U.S. optical fiber producer is also a leading producer and developer of related photonics products. These products are similar to optical fiber in that they use light rather than electronics to transmit digital information. Reportedly, they represent a relatively new group of products that will be used increasingly in the future to amplify, switch, and connect digital signals in fiber optics and other telecommunications

¹⁴⁶ Tim Regan, Corning Inc., testimony at USITC hearing on inv. 332-390, Mar. 19, 1998.

¹⁴⁷ Office of the United States Trade Representative, *National Trade Estimate on Foreign Trade Barriers*, 1998, pp. 23-24, 57-58, 108-109, 165, 215-216, and 260.

¹⁴⁸ Tim Regan, Corning Inc., testimony at USITC hearing on inv. 332-390, Mar. 19, 1998.

¹⁴⁹ Ibid.

¹⁵⁰ Industry representative, telephone interviews by USITC staff, Feb.-Mar. 1998.

networks and information technology systems. Since photonics, or optical, transmission of enormous amounts of voice, video, and data information is much more efficient than current electronic and telecommunications technologies, the demand for such products will likely expand significantly in the future as bandwidth limitations are reached in traditional network infrastructures. The U.S. producer is concerned that the same types of efforts by foreign governments and companies in the past to nurture and protect their optical fiber industries through preferred domestic practices, subsidization, and required technology transfer will be repeated in the photonics sector. According to the U.S. producer, because the U.S. industry does not impose similar nontariff measures, the present tariffs on photonics products are the only protection afforded U.S. producers of these products and, therefore, should not be eliminated.¹⁵¹

Inputs and packaging material

In 1997, U.S. imports of inputs and packaging materials included in this chapter totaled \$1.5 billion. Japan, Canada, and the EU were the largest sources of these imports accounting for nearly 60 percent of the total. Malaysia, Mexico, and China were other principal suppliers. Imports of aluminum sputtering targets and certain other articles of aluminum, plastic carrying and packaging materials, and photoresist and photomasks were the largest products groups in this category. The remaining \$80 million in imports were comprised of glass disk blanks for computer hard drives, certain monochrome photographic film, and aluminum rivets, washers, and screws.

In 1997, U.S. exports of these products were \$1.8 billion. The largest market for U.S. exports by far was Mexico, which accounted for \$524 million of the total. Other major markets included the EU at \$300 million, Canada at \$252 million, Japan at \$166 million, and Singapore at \$136 million. The products with the largest export values were plastic carrying and packaging materials. Mexico, Canada, the EU, and Japan were the principal export markets for these products, which totaled roughly \$830 million. Exports of sputtering targets and certain other articles of aluminum totaled \$690 million, while exports of photoresist and photomasks totaled nearly \$200 million.¹⁵²

Tariff elimination should lead to increased market opportunities for U.S. exports in a number of high tariff countries including the Philippines, Thailand, India, and Indonesia, all of which have tariffs in excess of 20 percent. Tariffs for the largest U.S. export markets are 1.7 to 6.5 percent for the EU, free to 3.9 percent for Japan, 6.5 to 10 percent for Singapore, and 6.5 to 13 percent for Korea. U.S. goods already receive or are scheduled to receive duty free treatment under the FTA and NAFTA in Canada and Mexico, two of the largest U.S. export markets. The U.S. tariffs on these products range from free to 6 percent. U.S. products with the highest rates are aluminum rivets, washers, and screws ranging from 4.7 to 6 percent, glass disk blanks at 5 percent, and certain photomasks at 4.9 percent. The tariffs on all other products in this group are below 4 percent.

U.S. industry representatives noted certain trade barriers relating to aluminum sputtering targets that may lessen any increased market access opportunities resulting from tariff elimination. According to an industry representative, customs procedures are considered to be a barrier in the EU, Japan, Korea, and Taiwan. In addition, the EU reportedly maintains restrictions relating to the sodium content of metals. According to the industry representative, restrictions apply only to imports, and not to products manufactured in the EU.¹⁵³

¹⁵¹ Tim Regan, Corning Inc., testimony at USITC hearing on inv. 332-390, Mar. 19, 1998.

¹⁵² Many of the products in this group comprise only part of the 8- or 10- *HTS* category in which they are classified. As such, trade figures are likely to be overstated.

¹⁵³ Industry representative, telephone interview by USITC staff, Feb. 1998.

Miscellaneous products

In 1997, U.S. imports of products in this category were \$3.2 billion. Japan was by far the largest U.S. supplier, totaling \$1.2 billion. China, the EU, Mexico, and Canada were also significant import sources. Imports of bill, coin, and token acceptors totaled \$1.76 billion, comprising over half of U.S. imports for the group. Combined, Japan and China represented 90 percent of these imports. The second-largest import group totaled \$845 million and was a basket category that includes wireless hand-held remote controls. The bulk of these imports were supplied by Mexico, Japan, and Canada. The remainder of imports in this chapter included parts of ink jet printers, electron tubes, and typewriter ribbon, and totaled \$555 million.

In 1997, U.S. exports of products in this chapter were \$1.5 billion. The EU and Canada were the two largest markets, representing over half of the total. Mexico, Japan, Korea, and Brazil were other significant markets. U.S. exports in this chapter were concentrated in a basket category that included wireless remote controls totaling \$420 million, electron tubes totaling \$210 million, coin, bill, and token collectors totaling \$195 million, and parts of ink jet printers totaling \$142 million.

Tariff elimination should lead to increased market opportunities for U.S. exports in a number of countries that have relatively high tariffs. These countries include the Philippines, Thailand, India, Indonesia, and Malaysia, all of which have tariffs ranging above 20 percent. Tariffs for the largest U.S. export markets are free to 6.5 percent for the EU, free to 3.9 percent for Japan, 6.5 to 10 percent for Singapore, and 6.5 to 13 percent for Korea. U.S. goods already receive or are scheduled to receive duty-free treatment under the FTA and NAFTA in Canada and Mexico, two of the top three U.S. export markets. U.S. tariffs for many products are free and, with the exception of electron tubes, all are below 3 percent. U.S. tariffs for electron tubes range from free on parts to 4.2 percent on receiver and amplifier tubes.

Two nontariff barriers have been reported by the electron tube industry, difficulties in obtaining U.S. export licenses and government procurement in the EU. Reportedly, these barriers may temper any increases in market access opportunities arising from tariff elimination. A large percentage of electron tubes are ultimately incorporated into military radar and communications applications. As such, U.S. producers often are required to obtain export licenses from the Department of Commerce and Department of State. In order to obtain licenses, potential exporters must provide end-use information from the intended foreign purchaser. Reportedly, customers are often reluctant to provide such information and may instead do business with an alternate supplier. When the necessary information is obtained and supplied to the U.S. Government, reportedly 6 to 8 weeks may be required to receive an export license. This added time requirement is a concern to U.S. exporters because of the desire of many purchasers to maintain short lead times. In addition, industry representatives have reported that the U.S. Government has on occasion denied export licenses even when the U.S. industry was able to document that an identical product was available from a foreign competitor not subject to the same export controls.¹⁵⁴ According to industry representatives, government procurement of electron tubes in the EU is also a barrier. As mentioned, a substantial portion of electron tubes are consumed in military applications. Reportedly, governments in certain EU states do not procure electron tubes on a competitive basis, preferring to source from domestic suppliers.¹⁵⁵

¹⁵⁴ Industry representative, fax to USITC staff, Mar. 27, 1998.

¹⁵⁵ Industry representative, telephone interviews by USITC staff, Feb.- Mar. 1998.

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3215.90.50 Ink other than printing or drawing ink	Ink for ink jet printers	Inks for packaging	10	U.S. Japan Germany	Mexico Brazil Neth.	Japan UK Germany	<ul style="list-style-type: none"> Some U.S. producers and trade associations anticipate increased foreign market opportunities Some U.S. producers and trade associations anticipate minimal impact 	15, 25
3215.90.50(pt.) Ink for ink jet printers, whether or not concentrated or solid	Not applicable	None	100	Japan U.S. EU	Mexico Brazil Neth.	Japan UK Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities 	25
3701.99.30(pt.) Photomasks coated with photosensitive material, unexposed	Integrated circuits Semiconductors Printed circuits	None	100	U.S. Japan EU	Canada Mexico Korea	Japan Belgium Korea	<ul style="list-style-type: none"> Current U.S. tariff is 4.9 percent 	26
3702.42.00(pt.) Dry film photoresist of a width exceeding 610 mm and of a length exceeding 200 m	Manufacture of semiconductors, printed circuits	None	100	U.S. Japan EU	Mexico France Australia	UK Belgium Mexico		29
3702.43.00(pt.) Dry film photoresist of a width exceeding 610 mm and of a length not exceeding 200 m	Manufacture of semiconductors, printed circuits	None	100	U.S. Japan EU	HK Canada Germany	Japan Belgium Switz.		29
3702.44.0060(pt.) Dry film photoresist of a width exceeding 105 mm but not exceeding 610 mm	Manufacture of semiconductors, printed circuits	None	100	U.S. Japan EU	Neth. UK Japan	Japan Switz. Canada		29

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3702.95.00 Monochrome photographic film of a width exceeding 35 mm, sensitized, unexposed	Manufacture of photomasks	None	100	U.S. Japan EU	Germany Taiwan HK	UK Switz. Japan		27, 28
3705.90.00(pt.) Photomasks, coated with photosensitive material, exposed and developed	Manufacture of semiconductors, printed circuits	None	100	U.S. Japan EU	Japan Canada Ireland	Japan Taiwan Germany	<ul style="list-style-type: none"> Current U.S. tariff is free 	30
3923.10.00(pt.) Carrying trays of non- conducting plastic with cavities shaped to hold electronic integrated circuits	Carrying integrated circuits	None	100	Japan	Mexico Canada Japan	Canada China Mexico		63
3923.90.00 Articles of plastics for the conveyance or packing of goods other than boxes, cases, crates, bags, sacks carboys, bottles, flasks spools, cops, bobbins, stoppers, lids, caps, or similar articles	Packaging electronic components	Packing and shipping of products	<1	U.S. Canada Japan	Mexico Canada UK	Canada China Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	36, 50, 51, 61
3923.90.00(pt.) Tubes of plastic shaped to hold goods of heading 8532, 8533, 8541, or 8542	Holding electronic components	None	100	U.S. China Canada	Mexico Canada UK	Canada China Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate minimal impact 	37

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
7014.00.10 Lens blanks of glass (other than for spectacles), not optically worked	Semiconductor and printed circuit manufacturing equipment Cameras and optical goods Scientific equipment and instruments	None	100	U.S. Japan EU	Canada Japan Korea	Japan Germany UK	<ul style="list-style-type: none"> U.S. production apparently exists but specific producers could not be located Current U.S. tariff is 4.9 percent 	78
7014.00.20 Optical elements of glass (other than lens blanks), not optically worked	Semiconductor and printed circuit manufacturing equipment Cameras and optical goods Scientific equipment and instruments	None	100	U.S. Japan EU	Neth. Japan Korea	Germany Japan UK	<ul style="list-style-type: none"> U.S. production apparently exists but specific producers could not be located Current U.S. tariff is 6 percent 	79
7020.00.60(pt.) Glass disk blank, with metal hub attached, to be coated with magnetic material for use in a hard disk magnetic storage unit for an automatic data processing machine	Hard disk magnetic storage media	None	100	Japan	Japan Mexico Germany	Japan China France	<ul style="list-style-type: none"> No U.S. production identified of the requested item 	82
7616.10.30(pt.) Rivets of aluminum having a shank diameter of 3.6 mm or more but not over 3.7 mm and a length of 6 mm or more but not over 6.5 mm	Manufacture of capacitors	None	100	Germany UK Taiwan	Canada Japan Mexico	France Germany UK	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Current U.S. tariff is 4.7 percent Industrial Fasteners Institute opposes inclusion in ITA-II 	96

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
7616.10.9030(pt.) Screws of aluminum having shanks or threads not over 6 mm in diameter	Manufacture of capacitors, computers	Motor vehicles Aircraft Construction Marine applications	<5	Taiwan China U.S.	Canada Japan Mexico	Taiwan Germany Canada	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Industrial Fasteners Institute opposes inclusion in ITA-II 	96
7616.10.9090(pt.) Aluminum washers having an outer diameter of 4 mm or more but not over 4.1 mm and a hole of 2.4 mm but not over 2.5 mm	Manufacture of capacitors	None	100	Taiwan	Malaysia Philippines Mexico	Canada Taiwan Germany	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact Industrial Fasteners Institute opposes inclusion in ITA-II 	96
7616.99.5090(pt.) Sputtering targets, of aluminum	Manufacture of capacitors and resistors, integrated circuits, and flat panel displays	None	100	Japan	Mexico Singapore Canada	Malaysia Japan Canada	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact 	87
7616.99.5090(pt.) Computer memory disk blanks and substrates of aluminum	Finished hard disks for computers	None	100	U.S. Japan	Mexico Singapore Canada	Malaysia Japan Canada	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	113
8443.90.50(pt.) Parts of ink-jet printing machines other than those of heading 8471	Ink-jet printing machines	None	100	U.S. UK France	Germany Canada UK	Germany UK Switz.	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	427
8476.29.00(pt.) Coin or bill (bank note) changers or acceptors of a kind used with automatic vending machines	Office equipment Telecommunications equipment	Vending machines Banking Gaming industries	<1	U.S. Japan	UK Mexico France	UK Canada Switz.	<ul style="list-style-type: none"> U.S. producers are internationally competitive U.S. producers support U.S. tariff elimination if other countries also eliminate tariffs U.S. tariff will be free in 1999 	229

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8476.89.00(pt.) Coin or bill (bank note) changers or acceptors of a kind used with automatic vending machines	Office equipment Telecommunications equipment	Vending machines Banking Gaming industries	<1	U.S. Japan	Canada Brazil UK	Canada Japan China	<ul style="list-style-type: none"> Some U.S. producers and trade associations anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	229
8504.10.00 Ballasts for discharge lamps or tubes	Copy machines Computer displays Projection systems	Fluorescent, sodium and mercury vapor, and metal halide lamps	<1	U.S. China EU	Mexico Canada Saudi Arabia	Mexico China Taiwan	<ul style="list-style-type: none"> Some U.S. trade associations anticipate adverse impact for smaller U.S. producers Larger U.S. producers anticipate increased foreign market opportunities Larger U.S. producers anticipate minimal impact 	351
8504.31.20 Unrated electrical transformers having a power handling capacity not exceeding 1 kVA	Consumer electronics Scientific instruments	Electrical relays Lighting and heating equipment	<1	U.S. Japan Philippines	Mexico Japan UK	China Mexico Philippines	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	352
8504.31.20(pt.) Unrated intermediate frequency (IF) transformers, current transformers, and signal transformers, all the forgoing designed for surface mounting (SMD)	Consumer electronics Scientific instruments	Electrical relays Lighting and heating equipment	50	U.S. Japan China	Mexico Japan UK	China Mexico Philippines	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	354
8504.31.40 Electrical transformers having a power handling capacity less than 1 kVA	Consumer electronics Scientific instruments	Electrical relays Lighting and heating equipment	<1	U.S. Japan China	Canada Philippines Mexico	Mexico China Taiwan	<ul style="list-style-type: none"> Current U.S. tariff is 6.6 percent and was not reduced as a result of Uruguay Round negotiations 	352

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8504.31.4035(pt.) Intermediate frequency (IF) transformers, current transformers, and signal transformers, all the forgoing designed for surface mounting (SMD)	Consumer electronics Scientific instruments	Electrical relays Lighting and heating equipment	50	U.S. Japan Taiwan	Canada Philippines Mexico	Mexico China Taiwan	<ul style="list-style-type: none"> Current U.S. tariff is 6.6 percent and was not reduced as a result of Uruguay Round negotiations 	354
8504.31.4065 Electrical transformers having a power handling capacity of 40 VA or greater but less than 1 kVA	Consumer electronic audio and video equipment	Electrical relays Lighting and heating equipment	<1	U.S. Japan Taiwan	Canada Philippines Mexico	Mexico China Taiwan	<ul style="list-style-type: none"> Current U.S. tariff is 6.6 percent and was not reduced as a result of Uruguay Round negotiations 	353
8504.31.4065(pt.) Intermediate frequency (IF) transformers, current transformers and signal transformers, all the forgoing designed for surface mounting (SMD)	Consumer electronic audio and video equipment	Electrical relays Lighting and heating equipment	50	U.S. Japan Taiwan	Canada Philippines Mexico	Mexico China Taiwan	<ul style="list-style-type: none"> Current U.S. tariff is 6.6 percent and was not reduced as a result of Uruguay Round negotiations 	354
8504.31.60 Electrical transformers having a power handling capacity of 1 kVA	Consumer electronic audio and video equipment	Electrical relays Lighting and heating equipment Industrial process control	<1	U.S. Japan Taiwan	Canada Mexico Japan	Mexico China Germany		352

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8504.31.60(pt.) Intermediate frequency (IF) transformers, current transformers and signal transformers, all the forgoing designed for surface mounting (SMD) having a power handling capacity of 1 kVA	Consumer electronic audio and video equipment	Electrical relays Lighting and heating equipment Industrial process control	50	U.S. Japan Taiwan	Canada Mexico Japan	Mexico China Germany		354
8504.50.80(pt.) Chip type fixed inductors other than for power supplies for automatic data processing machines and units of 8471 or for telecommunications apparatus	Electric wave filters and circuit componentry for audio and video equipment	Energy storage devices	5	U.S. Japan Taiwan	Mexico Canada UK	Mexico Japan China	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from France, Italy, and Japan (A-427-030, A-475-031, and A-588-032) 	363
8504.90.40 Parts of power supplies for automatic data processing machines or units of heading 8471 other than printed circuit assemblies	Computers	None	100	U.S. Japan Taiwan	Mexico Singapore Canada	Mexico China Taiwan	<ul style="list-style-type: none"> Current U.S. tariff is free 	364
8504.90.75 Printed circuit assemblies for electrical transformers, static converters, and inductors except of the goods of subheading 8504.40 or 8504.50 for telecommunications apparatus	Printed circuits	None	100	U.S. Japan Malaysia	Mexico Singapore Canada	Mexico Malaysia China		358, 364

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8504.90.95 Parts of electrical transformers, static converters, and inductors except printed circuit assemblies or parts of power supplies for ADP machines or units thereof	Manufacture of consumer electronics, transformers, static converters, inductors	Electrical power and distribution transformers	<25	U.S. Japan Germany	Mexico HK Japan	Germany Canada Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) 	364
8504.90.9550 Parts of static converters, other than ferrites, printed circuit assemblies, or parts of power supplies for ADP machines or units thereof	Manufacture of static converters for consumer audio and video equipment	Battery chargers Welding equipment Heating equipment	<25	U.S. Japan China	Mexico Singapore Canada	Japan China	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) 	358
8506.10.00 Manganese dioxide primary cells and primary batteries, including battery packs	Used to power radios, cassette players, cameras	Used to power flashlights, toys, clocks	50	Japan China U.S.	HK Canada Argentina	Indonesia China Japan		369
8506.30.10 Mercuric oxide primary cells and primary batteries, having an external volume not exceeding 300 cm ³ , including battery packs	Used to power television receivers, radios, and pagers	Used to power hearing aids, electronic watches	50	U.S. China UK	France Sweden HK	HK China UK		369
8506.30.50 Mercuric oxide primary cells and primary batteries, having an external volume over 300 cm ³ , including battery packs	Used to power cameras, radios	Used to power radiation detection equipment, voltage instruments	25	UK U.S. China	Mexico Singapore Costa Rica	China HK Japan		369

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8506.40.10 Silver oxide primary cells and primary batteries, having an external volume not exceeding 300 cm ³ , including battery packs	Used to power photoelectric exposure devices, calculators, transistor applications	Used to power hearing aids, electronic watches	50	Japan Germany Switz.	France UK HK	Japan Switz. Germany		369
8506.50.00 Lithium primary cells and primary batteries, including battery packs	Used to power computers, calculators, cameras	Used to power pacemakers, watches	50	Japan U.S. EU	HK Canada Singapore	Japan Israel Taiwan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	369
8506.60.00 Air-zinc primary cells and primary batteries, including battery packs	Used to power telephone circuits	Used to power clocks, railway signaling and lighting equipment	25	Taiwan Japan U.S.	Japan UK Canada	Taiwan Japan UK		369
8506.90.00 Parts of primary cells and primary batteries, including battery packs	Manufacture of primary cells and batteries used to power consumer electronics, telecommunication s and photographic equipment	Manufacture of primary cells and batteries used to power toys, watches, clocks, measuring and checking instruments, missiles	50	U.S. Japan Germany	Mexico HK Singapore	Japan Germany Denmark		369

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8507.20.80 Lead-acid storage batteries, not of a kind used for starting piston engines, or as the primary source of electrical power for electrically powered vehicles of subheading 8703.90, including battery packs	Used to power backup systems for computer installations, large telephone exchanges	Used to power backup electric generator equipment for industrial equipment	20	Mexico Taiwan Japan	Canada Mexico UK	Mexico Taiwan Japan		370
8507.30.80 Nickel-cadmium storage batteries, not of a kind used as the primary source of electrical power for electrically powered vehicles of subheading 8703.90, including battery packs	Used to power computers, cellular telephones, consumer electronics	Used to power toys, submarines	50	Japan EU U.S.	Mexico Canada HK	Japan Mexico China	<ul style="list-style-type: none"> Energizer Power Systems, the sole significant U.S. battery cell producer, anticipates adverse impact and opposes inclusion in ITA-II Two major U.S. battery pack producers anticipate increased foreign market opportunities and support inclusion in ITA-II 	370, 371
8507.80.80 Storage batteries, other than lead-acid, nickel-cadmium, or nickel-iron, not of a kind used as the primary source of electrical power for electrically powered vehicles of subheading 8703.90, including battery packs	Used to power cellular telephones, computers	Used to power electric home appliances	75	Japan Taiwan U.S.	Mexico Canada Germany	Japan Taiwan China	<ul style="list-style-type: none"> Energizer Power Systems, the sole significant U.S. battery cell producer, anticipates adverse impact and opposes inclusion in ITA-II Two major U.S. battery pack producers anticipate increased foreign market opportunities and support inclusion in ITA-II 	370

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8507.80.80(pt.) Lithium ion storage batteries, including battery packs	Used to power computers telephones camcorders	Not generally used in non-IT applications	>75	Japan	Mexico Canada Germany	Japan Taiwan China	<ul style="list-style-type: none"> Two U.S. battery cell manufacturers that are in the process of commercializing their products expressed concern that the removal of U.S. tariffs would result in increased U.S. imports and adversely affect efforts to further develop and broaden their product lines Two major U.S. battery pack producers anticipate increased foreign market opportunities and support inclusion in ITA-II 	372
8507.90.40 Parts of lead-acid electric storage batteries, including battery packs	Manufacture of lead- acid electric storage batteries used to power backup systems for computers and telecommunication s installations	Manufacture of lead- acid electric storage batteries used to power backup electric generator equipment	50	U.S. EU Japan	Mexico Korea Japan	Belgium Italy Philippines		373
8507.90.80 Parts of electric storage batteries other than lead- acid, including battery packs	Manufacture of electric storage batteries other than lead- acid batteries used to power consumer electronics computers, cellular telephones	Manufacture of electric storage batteries other than lead- acid batteries used for off-peak power storage and to power home appliances and toys	50	Japan U.S. EU	Mexico Canada Germany	Japan Germany France	<ul style="list-style-type: none"> Energizer Power Systems, the sole significant U.S. battery cell producer, anticipates adverse impact and opposes inclusion in ITA-II Two major U.S. battery pack producers anticipate increased foreign market opportunities and support inclusion in ITA-II 	370, 373

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8537.10.9060 Programmable controllers for a voltage not exceeding 1,000 V	Computer controls for manufacturing process	None	100	U.S. EU Japan	Canada Mexico UK	Japan China Mexico	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	393
8537.10.9070(pt.) Wireless handheld remote controls	Remote controls for consumer electronics	Remote controls for toys and industrial products	75	China Malaysia Japan	Canada Mexico UK	Japan China Mexico	<ul style="list-style-type: none"> Industry association supports inclusion of this product in ITA-II 	393
8540.71.40 Magnetrons other than those modified for use as parts of microwave ovens	Broadcast communications equipment Medical equipment	Military radar Industrial processing	10	U.S. EU Korea	Taiwan UK Germany	UK Japan France	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be 3.7 percent in 1999 Techneglas, Inc. opposes inclusion in ITA-II 	316
8540.72.00 Klystrons	Telecommunications equipment Scientific equipment	Military applications Industrial processing	50	U.S. EU Japan	Japan Australia Korea	Canada UK France	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be 3.3 percent in 1999 	317
8540.79.00 Microwave tubes excluding grid controlled tubes, magnetrons, and klystrons	Communications equipment Satellite equipment	Military applications Industrial processing	50	U.S. EU Japan	Canada UK France	Germany France UK	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be 3.7 percent in 1999 	318
8540.81.00 Receiver or amplifier tubes	Telecommunications equipment	Military applications	50	U.S. EU Japan	Japan France Canada	France Russia China	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be 4.2 percent in 1999 	319

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8540.89.00 Thermionic, cold cathode, or photocathode tubes other than microwave and receiver or amplifier, television picture, television camera, and data graphic display tubes	Broadcast communications equipment Scientific equipment	None	100	U.S. EU Japan	UK Japan Switz.	Japan France UK	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. tariff will be 3.7 percent in 1999 	320
8540.99.40 Electron guns and radio frequency (RF) interaction structures for microwave tubes of subheadings 8540.41 through 8540.49, inclusive	Telecommunications equipment Scientific equipment	Military applications Industrial processing equipment Microwave ovens	50	U.S. EU Japan	Mexico Japan Korea	Mexico Korea Japan	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 Committee to Preserve American Color Television opposes inclusion in ITA-II 	325
8540.99.80 Parts of articles of heading 8540, not elsewhere specified or included	Telecommunications equipment Scientific equipment	Military applications Industrial processing equipment Microwave ovens	50	U.S. EU Japan	Mexico Japan Korea	Italy Germany Japan	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	325
8543.89.80 Microwave amplifiers	Radiotelephony Radiotelegraphy	None	100	U.S. Canada Japan	Canada Japan UK	Canada Phillippines Japan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan (A-588-005) 	489
8543.89.9660 Amplifiers, not specifically provided for	Communications and scientific applications	Industrial applications	50	U.S. Canada Japan	Canada Mexico Venezuela	China Japan Sweden		493

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8543.89.9695 Electrical machines and apparatus having individual functions not specified or included elsewhere in Chapter 85	Laptop computers Radar and navigational display	Various industrial and scientific applications	<1	U.S. Japan Canada	Canada Korea Japan	China Japan Canada		158, 493
8543.89.9695(pt.) Flat panel displays not elsewhere specified or included	Laptop computers Radar and navigational display	None	100	Japan EU Korea	None	China Japan Canada	<ul style="list-style-type: none"> It is believed there was no U.S. production of the requested items in 1997 	307
8543.90.15 Printed circuit assemblies for flight data recorders, consisting of two or more parts or pieces fastened or joined together	Flight data recorders	None	100	Canada EU Switz.	Korea Japan UK	Canada France UK	<ul style="list-style-type: none"> Current U.S. tariff is 3.1 percent 	494, 495
8543.90.35 Assemblies for flight data recorders, consisting of two or more parts or pieces fastened or joined together other than printed circuit assemblies	Flight data recorders	None	100	EU Canada Switz.	Korea Japan UK	UK Canada Germany	<ul style="list-style-type: none"> Current U.S. tariff is 3.1 percent 	494, 495

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8543.90.68 Printed circuit assemblies of electrical machines and apparatus having individual functions, not specified or included elsewhere in Ch. 85, other than for flight data recorders, ion implanters of subheading 8543.11, and flat panel displays	Parts for the manufacture of dictionary or translation and electroplating machines, microwave amplifiers, and signal generators	Parts for the manufacture of electric fence energizers, aircraft demisters and defrosters and special effects pedals for musical instruments	50	Japan Mexico EU	Korea Japan UK	Japan Mexico UK	<ul style="list-style-type: none"> Current U.S. tariff is 3.1 percent Outstanding antidumping duty order in place on certain imports from Japan (A-588-005) 	308, 494, 495
8544.20.00 Coaxial cable and other coaxial electric conductors	Computers Telecommunications equipment Scientific equipment	Automobiles Aircraft	75	China Mexico Taiwan	Canada Argentina Mexico	China Mexico Taiwan		211, 212
8544.41.80 Insulated electric conductors, fitted with connectors, for a voltage not exceeding 80 V, other than winding wire, coaxial cable, and ignition sets and not of a kind used for telecommunications,	Power cords for computers, office equipment, and consumer electronics	Power cords for household appliances, lighting products, power tools	<50	Mexico China Taiwan	Mexico Canada Japan	Mexico China Taiwan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Taiwan, Japan, and Korea (A-583-806, A-588-809, and A-580-803) 	211, 213
8544.49.80 Insulated electric conductors, not fitted with connectors, for a voltage not exceeding 80 V, other than winding wire, coaxial cable, and ignition sets and not of a kind used for telecommunications	Internal wiring for computers, office machines, and consumer electronics	Automobiles Household appliances	25	Mexico Canada China	Mexico UK Japan	Mexico Canada China		211, 214

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8544.51.90 Insulated electric conductors, fitted with connectors other than modular telephone connectors, for a voltage exceeding 80 V but not exceeding 1,000 V, not of a kind used for telecommunications	Power cords for computers, office machines, consumer electronics	Building wire and cable Distribution wire and cable	10	Mexico China Canada	Mexico Canada UK	Mexico China Canada		211, 215
8544.59.20 Insulated electric conductors of copper not fitted with connectors for a voltage exceeding 80 V but not exceeding 1,000 V	Power cords for computers, office machines, consumer electronics	Building wire and cable Distribution wire and cable	10	Mexico Canada Peru	Canada Mexico Belgium	Mexico Canada Peru		211, 216
8544.59.40 Insulated electric conductors, not of copper and not fitted with connectors for a voltage exceeding 80 V but not exceeding 1,000 V	Cabling for computer systems	Building wire and cable Distribution wire and cable	<1	Canada Taiwan Mexico	Canada Mexico Korea	Canada Taiwan Mexico		211
8544.60.20 Insulated electric conductors, for a voltage exceeding 1,000 V, fitted with connectors	Uninterruptible power supplies for computers	Distribution wire and cable Power wire and cable	<1	Taiwan China Japan	Saudi Arabia Germany Mexico	Taiwan China Japan		211
8546.10.00 Electrical insulators of glass	Computers Office machines Electrical resistors	Power and distribution line insulators	5	China Germany France	Germany Canada Taiwan	China Germany France		217

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8546.20.00 Electrical insulators of ceramics	Computers Office machines Electrical resistors	Power and distribution line insulators	10	Japan Germany Mexico	Canada Germany Mexico	Japan Germany Mexico		217
8546.90.00 Electrical insulators of any material other than glass or ceramics	Computers Office machines Electrical resistors	Electrical wiring boxes	10	Germany Canada Japan	Canada Mexico Japan	Germany Canada Japan	• U.S. tariff will be free in 1999	217
8547.10.80 Ceramic insulating fittings other than for the production of spark plugs for natural gas-fueled stationary, internal combustion engines	Computers Consumer electronics	Motors Generators Household appliances	10	Germany Japan France	Mexico Canada Israel	Germany Japan France	• Current U. S. tariff is 4.2 percent	218
8547.20.00 Insulating fittings of plastics for electrical machines, appliances or equipment	Computers Office machines	Household appliances Motor vehicles	10	Japan Germany Canada	Mexico Brazil Chile	Japan Germany Canada	• U.S. tariff will be free in 1999	219
8547.90.0010 Insulating fittings other than of plastic or ceramics	Computers Office machines Consumer electronics	Electrical wiring devices Household appliances Motor vehicles	10	Taiwan Singapore Switz.	Canada Mexico France	Taiwan Singapore Japan	• Current U.S. tariff is 5.1 percent	220
8548.90.00 Electrical parts of machinery or apparatus not specified or included elsewhere in Ch. 85.	Computers Telecommunications equipment Consumer electronics	Miscellaneous electrical machinery	<1	U.S. Mexico Japan	Korea Taiwan Mexico	Japan Mexico Canada	• U.S. tariff will be free in 1999	497

Table 5-2
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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8548.90.00(pt.) EMI filter	Computers Telecommunications equipment Consumer electronics	Frequency converters for motors	75	EU Mexico Taiwan	Korea Taiwan Mexico	Japan Mexico Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	496
9001.10.00 Optical fibers, optical fiber bundles and cables, other than optical fiber cables of 8544.70	Telecommunications cables Local area network systems Medical equipment	Sensors Automobile lighting Decorative pieces	75	U.S. Japan Germany	Canada China Japan	Canada Japan China	<ul style="list-style-type: none"> Corning opposes inclusion in ITA- II Current U.S. tariff is 7 percent and will be 6.7 percent in 1999 	498
9002.90.95 Optical elements, other than objective lenses, filters, prisms, mirrors, halftone screens, or mounted lenses suitable for use in, and entered separately from, closed-circuit television cameras, not elsewhere specified or included	Closed-circuit television cameras	None	100	Japan Germany UK	Norway Japan UK	Japan UK Canada	<ul style="list-style-type: none"> Small U.S. producers may be adversely affected 	499
9002.90.95(pt.) Parts and accessories of lenses, prisms, mirrors and other optical elements, of any material, mounted, being parts of or fittings for instruments or apparatus, other than such elements of glass not optically worked	Parts of cameras, projectors, semiconductor manufacturing machines, and closed-circuit television cameras	None	100	Japan UK Korea	Norway Japan UK	Japan UK Canada	<ul style="list-style-type: none"> Small U.S. producers may be adversely affected 	501

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	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9013.80.90 Optical devices not elsewhere specified or included in Ch. 90, other than telescopic sights, lasers, magnifiers, door viewers, and flat panel displays	Fiber optic telecommunication s systems Local area networks	None	100	U.S. Japan France	UK Canada France	Canada France Japan	<ul style="list-style-type: none"> Corning opposes inclusion in ITA-II 	492
9013.80.90(pt.) Other liquid crystal devices not constituting articles provided for more specifically in other headings	Not applicable	None	100	Canada France Japan	UK Canada France	Canada France Japan	<ul style="list-style-type: none"> Corning opposes inclusion in ITA-II Small U.S. producers may be adversely affected 	307
9013.80.90(pt.) Glass sandwiches for LCD displays	Manufacture of liquid crystal devices	None	100	Canada France Japan	UK Canada France	Canada France Japan	<ul style="list-style-type: none"> Corning opposes inclusion in ITA-II Small U.S. producers may be adversely affected 	514
9013.80.90(pt.) Optical instruments and appliances for error verification and repair of printed circuits	Manufacture of printed circuits	None	100	Japan Germany Austria	UK Canada France	Canada France Japan	<ul style="list-style-type: none"> Corning opposes inclusion in ITA-II Other large U.S. producers support inclusion in ITA-II Small U.S. producers may be adversely affected 	187
9013.80.90(pt.) Optical amplifiers	Fiber optic telecommunication s systems Video and data processing systems Local area networks	None	100	U.S. Japan France	UK Canada France	Canada France Japan	<ul style="list-style-type: none"> Corning opposes inclusion in ITA-II Other U.S. producers support inclusion in ITA-II 	490, 492

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9013.80.90(pt.) Planar waveguide circuits (optochips)	Fiber optic telecommunication s systems Video and data processing systems Local area networks Television broadcasting	None	100	Neth.	UK Canada France	UK Canada France	<ul style="list-style-type: none"> Corning opposes inclusion in ITA-II No U.S. production identified 	515
9013.90.90(pt.) Parts and accessories of optical instruments and appliances for error verification and repair of printed circuits	Parts of machines used in the testing and repair of printed circuits	None	100	Japan Germany Israel	Japan Turkey Germany	Germany Israel Japan	<ul style="list-style-type: none"> Small U.S. producers may be adversely affected 	188
9013.90.90(pt.) Parts and accessories of glass sandwiches for LCD displays	Manufacture of liquid crystal displays	None	100	Japan Germany Israel	Japan Turkey Germany	Germany Israel Japan	<ul style="list-style-type: none"> Small U.S. producers may be adversely affected 	514
9013.90.90(pt.) Parts of flat panel displays other than for articles of heading 8528	Flat panel displays	None	100	Germany Israel Japan	Japan Turkey Germany	Germany Israel Japan	<ul style="list-style-type: none"> Small U.S. producers may be adversely affected 	308
9031.49.90(pt.) Optical instruments and appliances not elsewhere specified or included for inspecting printed circuits (automatic optical inspection equipment)	Not applicable	None	100	U.S. UK Japan	Japan Mexico Germany	Canada Germany Japan	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	187

Table 5-2
Components, subassemblies, and accessories for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9031.90.58(pt.) Parts and accessories of optical instruments and appliances not elsewhere specified or included for inspecting printed circuits (automatic optical equipment)	Optical instruments and appliances for printed circuit production	None	100	U.S. UK Japan	Japan Canada UK	Germany Japan Israel	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Outstanding antidumping order in place on certain imports from Japan (A-588-840) 	188
9504.10.0030 Coin, token or bill (bank note) acceptors for video game machines of a kind used with a television receiver	Video games Simulators Video lotteries	Musical keyboards	75	U.S. Japan China	Canada Paraguay Mexico	Japan China Mexico	<ul style="list-style-type: none"> Current U.S. tariff is free 	330
9504.30.0060 Coin or token acceptors for coin- or token-operated game machines	Video games Simulators Video lotteries	Cigarette vending machines Jukeboxes Pay telephones	75	U.S. Japan China	Canada Germany France	Japan China Taiwan	<ul style="list-style-type: none"> Current U.S. tariff is free 	331
9504.90.4000 Bill (bank note) acceptors for game machines	Video games Simulators Video lotteries	Cigarette vending machines Jukeboxes Pay telephones	75	U.S. Japan China	Paraguay Canada Japan	China Japan HK	<ul style="list-style-type: none"> Current U.S. tariff is free 	332
9612.10.10 Typewriter or similar ribbons less than 30 mm in width	Typewriters Adding machines Dot matrix printers	None	100	U.S. Japan EU	Canada UK Mexico	Mexico Japan China	<ul style="list-style-type: none"> Some U.S. trade associations anticipate adverse impact U.S. tariff will be free in 1999 	333

CHAPTER 6

Paper, Metal, Plastic, and Other Inputs

Scott Ki

Introduction

This chapter includes raw materials and compounds that are processed and used as inputs for other compounds and components. Major product groupings by type of material are in table 6-1. With the exception of certain condenser paper and nonferrous metal products, information technology (IT) uses for the products discussed in this chapter are relatively minor compared with non-IT uses. Table 6-2, located at the end of the chapter, lists all the products covered in this chapter; describes the products and their uses; identifies the major producing countries and U.S. trading partners; and provides trade-related information gathered from U.S. industry and government sources.

Table 6-1
Major product groupings: Paper, metal, plastic, and other inputs

Group	Principal products/uses
Condenser paper	<ul style="list-style-type: none">• bleached and unbleached condenser paper• IT uses include the manufacture of capacitors, transformers, cables, and batteries• non-IT uses include photographic applications• IT uses account for 75 percent of total applications
Nonferrous metal products	<ul style="list-style-type: none">• nonferrous metal wires, strips, laminates, and foils• IT uses include the manufacture of capacitors, resistors, and other electronic components• non-IT uses include applications in the plumbing, construction, metalworking, electrical, and packaging industries• with the exception of certain foils and wires, most are used for IT applications
Plastics	<ul style="list-style-type: none">• includes plastic plates, sheets, film, foil, tape and strips• IT uses include the manufacture of capacitors, semiconductors, and other electronic components• non-IT uses include applications in the packaging, automotive, wire and cable covering industries• IT uses are minimal
Other products	<ul style="list-style-type: none">• various organic and inorganic chemicals, raw materials, and compounds

Source: Compiled by USITC staff.

Trade Patterns and Market Opportunities

U.S. imports of products discussed in this chapter totaled nearly \$4.1 billion in 1997, while

corresponding U.S. exports totaled an estimated \$4.5 billion.¹⁵⁶ U.S. imports were supplied primarily by Japan, the EU, and Canada. These three sources, combined, provided over three-fourths of all U.S. imports. Japan supplied \$1.2 billion or 29 percent of total imports, and the EU contributed nearly the same amount. Canada was the third leading source of imports with \$756 million or 19 percent of the total. Canada, the EU, and Mexico were the leading markets for U.S. exports and received approximately 57 percent of total U.S. exports of these products. Canada, the recipient of \$948 million in U.S. exports, led all markets, followed closely by the EU with \$931 million. Mexico accounted for approximately \$657 million of total U.S. exports. However, as many of these products do not comprise the entire 8- or 10-digit *HTS* category in which they are classified, these figures likely overestimate actual trade. Condenser paper and nonferrous metal products were the smallest of the four categories in terms of total trade. The remaining product groupings, plastics and other inputs, are primarily used in non-IT applications but contributed relatively more value in terms of U.S. trade.

Of the leading markets for U.S. producers, the ITA is likely to have a negligible impact on U.S. exports as foreign tariff rates currently are zero or in the single digits, or will be zero in the near future. However, whether or not these products are included in the ITA, it is likely U.S. exports to the EU market will increase as the Czech Republic, Poland, Romania, and Slovakia gain admission to the EU and adopt the common external tariff. U.S. exports to the other leading markets, Canada and Mexico, will be minimally affected by the ITA. Although some Mexican tariffs have not yet been eliminated under the NAFTA, since Mexico is not an ITA signatory, there will be no effect on Mexican imports due to the ITA II process. Canadian tariff rates for the U.S. exports of these products have been eliminated in phaseouts begun under the U.S.-Canada Free Trade Agreement (FTA) and continued under the NAFTA; thus, no new opportunities are expected for U.S. producers.

Generally, foreign suppliers of these items may have greater market access opportunities if these products are included in the ITA, if high tariff rates in ITA markets are eliminated. In this respect, U.S. firms may increase sales to ITA signatory markets such as Australia, the Czech Republic, Iceland, India, Indonesia, Israel, Malaysia, New Zealand, the Philippines, Poland, Romania, Singapore, Slovakia, Thailand, and Turkey where tariffs on products that are the subject of this chapter are at least 10 percent.¹⁵⁷ U.S. firms also are likely to increase sales to rapidly developing markets such as India, Indonesia, the Philippines, and Thailand where tariffs for these items generally range from 30 to 50 percent. However, none of these markets is currently a major U.S. export market for these products with the exception of exports of flux and solder compounds to India which totaled \$59 million in 1997.

According to U.S. industry representatives, tariff elimination would result in increased foreign market opportunities only for a limited number of products which are the subject of this chapter. In particular, U.S. firms anticipate increased market opportunities for silver nitrate, solder paste, certain flux compounds, and certain aluminum foil, although the U.S. industry was not necessarily in agreement regarding the impact of tariff elimination. In comparison, there was strong opposition to tariff elimination on certain products for which duty-free imports were perceived as a threat to the competitiveness of the U.S. industry. These arguments are discussed below.

The foreign market opportunities for U.S. firms created by tariff elimination may be limited by nontariff barriers. Of the leading U.S. trading partners, Canada appears to impose few or no nontariff barriers to U.S. exports of these materials, whereas Japan and the EU have various nontariff barriers which hinder the sales of

¹⁵⁶ All trade data are based on official statistics of the U.S. Department of Commerce (USDOC).

¹⁵⁷ Unless otherwise indicated, tariffs cited in this report are the final Uruguay Round concession rates which enter into effect Jan. 1, 1999. *Most-Favoured Nation Tariff Schedules, Annexes to Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations (Marrakesh Protocol)*, Apr. 15, 1994.

U.S. firms in those markets. Japan continues to restrict market access for U.S. firms by means of lengthy import clearance policies, high costs of product distribution, and exclusionary business practices among other procedures.¹⁵⁸ U.S. producers of materials in this chapter have identified standards, testing, labeling, certification, approvals, and registration delays as major impediments to conducting business in the EU.¹⁵⁹ The Office of the United States Trade Representative (USTR) also has noted these barriers, detailing problems such as delays in the development of EU standards, inconsistent application and interpretation of EU legislation, and unclear requirements for labeling and marking of products, among other concerns.¹⁶⁰ In addition, specific EU Member States, such as Denmark, reportedly engage in practices that threaten U.S. producers' intellectual property rights. For example, a U.S. firm's test data for certain chemicals, submitted for market approval to Denmark's equivalent of the Environmental Protection Agency, may be disclosed to its competitors.¹⁶¹

Among other ITA signatories, significant nontariff barriers have been noted by the USTR in markets such as Costa Rica, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan, and Thailand. For instance, Taiwan requires environmental protection approvals for nonferrous metal products.¹⁶² Other barriers that apply to nonferrous metal products include an unpublished policy in India that favors counter trade of metals¹⁶³ and local requirements for trade of aluminum sheets in Thailand.¹⁶⁴ Barriers for U.S. chemical products manufacturers include local content and foreign exchange balancing requirements in the Philippines,¹⁶⁵ insufficient patent protection in Costa Rica¹⁶⁶ and India,¹⁶⁷ restrictive import licensing in India,¹⁶⁸ and an extremely detailed preapproval process in Korea.¹⁶⁹ Nontariff barriers for U.S. plastics manufacturers include import licensing of plastic resins in Malaysia.¹⁷⁰ Barriers on other inputs include import licensing in Thailand¹⁷¹ and export subsidies in Indonesia¹⁷² and the Philippines.¹⁷³

Condenser paper

Condenser paper is used directly in the manufacture of capacitors, transformers, cables, and batteries. An estimated three-quarters of all condenser paper is used in the IT industry in this application.¹⁷⁴ The remainder is used in photographic applications, which are not included in the definition of IT products. U.S. imports of condenser paper reached nearly \$3 million in 1997. The EU, Japan, and Canada accounted for nearly all U.S. imports of condenser paper. In 1997, the United States exported \$13 million worth of condenser paper, primarily to Canada, the EU, and Mexico.

¹⁵⁸ Office of the United States Trade Representative (USTR), *National Trade Estimate Report on Foreign Trade Barriers (NTE)*, 1998, pp. 199-202, 206-207, and 226-230.

¹⁵⁹ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹⁶⁰ USTR, *NTE*, 1998, pp. 102-108.

¹⁶¹ *Ibid.*, p. 114.

¹⁶² *Ibid.*, p. 372.

¹⁶³ *Ibid.*, p. 173.

¹⁶⁴ *Ibid.*, p. 384.

¹⁶⁵ *Ibid.*, p. 336.

¹⁶⁶ *Ibid.*, p. 73.

¹⁶⁷ *Ibid.*, p. 166.

¹⁶⁸ *Ibid.*, p. 163.

¹⁶⁹ *Ibid.*, pp. 258-259, 263.

¹⁷⁰ *Ibid.*, p. 276.

¹⁷¹ *Ibid.*, p. 378.

¹⁷² *Ibid.*, p. 178.

¹⁷³ *Ibid.*, p. 331.

¹⁷⁴ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

Market access opportunities for U.S. producers from foreign tariff elimination are expected to be minimal because of relatively low or zero duty rates in major export markets such as Canada and Mexico. Any increase in U.S. exports to the EU should be slight because of cost-competitive producers in Sweden, Austria, and Finland. Also, U.S. shipments of condenser paper may increase to high tariff or rapidly developing countries that are ITA signatories, such as India and Indonesia, which have tariffs of 40 percent; Romania, which has tariffs of 35 percent; and Thailand and the Philippines, which have tariffs of 30 percent. Opportunities for foreign producers of condenser paper should be similar to those of U.S. producers as duty rates in the United States, EU, and Japanese markets are relatively low. Current U.S. tariff rates on condenser paper are 1.2 and 2.6 percent while Japan's tariff rates on condenser paper are zero.

The United States is the third largest producer of condenser paper in the world, following the EU and Japan.¹⁷⁵ One U.S. industry representative states that eliminating tariffs on these products would cause a major negative disruption to the U.S. condenser paper industry.¹⁷⁶ In addition, the industry faces difficulty in selling condenser paper in Japan, a major market. This representative could not cite a specific nontariff barrier encountered in the Japanese market but noted a general business climate that hindered market access.¹⁷⁷ Japan's distribution channels for sectors that may include condenser paper, such as paper and paperboard, have been recognized as a major market access impediment for U.S. companies by the USTR.¹⁷⁸ Although the Japanese government has agreed to facilitate foreign import penetration in the Japanese market for paper products, there has been no meaningful increase in market share by U.S. or foreign producers.¹⁷⁹ Key problems cited as restricting U.S. market access in this sector are weak enforcement of Japan's Antimonopoly Law and exclusionary business practices.¹⁸⁰

Nonferrous metal products

Nonferrous metal products considered for inclusion in the ITA are primarily in the form of wires, strips, laminates, and foils. Like condenser paper, these are used as inputs in the manufacture of capacitors, resistors, and other electronics components. For instance, refined copper clad laminates are believed to be used only in the manufacture of printed circuits. However, certain wires and foils also are used widely in non-IT applications, such as the packaging of food and pharmaceuticals, and in the plumbing, construction, metalworking, and packaging industries. U.S. imports of nonferrous metal products totaled approximately \$1.0 billion in 1997.¹⁸¹ U.S. exports were slightly lower at \$983 million. The leading import sources, Canada, the EU, and Japan, supplied nearly 70 percent of all U.S. imports of these items in 1997. Canada, Mexico, and the EU were leading markets for U.S. exports of nonferrous metal products, accounting for over half of the total.

Several U.S. nonferrous metal products manufacturers stated that increased foreign market opportunities would result from tariff elimination on certain aluminum foils.¹⁸² However, duties on U.S. exports to Canada and Mexico,¹⁸³ two leading markets, are already being eliminated as a result of the NAFTA. Market access opportunities may arise for producers of these products in rapidly developing ITA signatories

¹⁷⁵ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹⁷⁶ U.S. industry representative, fax to USITC staff, Mar. 9, 1998.

¹⁷⁷ *Ibid.*

¹⁷⁸ USTR, *NTE*, 1998, pp. 199-200.

¹⁷⁹ *Ibid.*, p. 237.

¹⁸⁰ *Ibid.*, p. 237.

¹⁸¹ However, as many of these products do not comprise the entire 8- or 10-digit *HTS* categories in which they are classified, these figures overestimate actual trade.

¹⁸² U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹⁸³ Mexico is not an ITA signatory.

with high tariffs such as Indonesia, which has 40 percent tariffs on these products; Romania, with 35 percent tariffs; and the Philippines, where tariffs range from 30 to 50 percent.¹⁸⁴ However, overall benefits to nonferrous metals producers are expected to be minimal because of relatively low duty rates in major markets such as the United States, the EU, and Japan, which have tariffs of zero to 5.8 percent, zero to 7.5 percent, and zero to 7.5 percent, respectively. In addition, Japan's alleged nontariff barriers could mitigate opportunities in that market.

U.S. industry support for the inclusion of copper clad laminates in the ITA is mixed. One producer, Rogers Corporation, supports their inclusion.¹⁸⁵ However, another U.S. producer maintains that any reduction in U.S. tariffs would have a "devastating effect on the domestic industry because of the competitive nature of the industry."¹⁸⁶ Further, this producer stated that all producers worldwide pay essentially the same price for the basic raw materials used in the manufacture of copper clad laminates but that the U.S. industry needs a duty on the product to compensate for higher labor costs incurred in the United States.¹⁸⁷ The U.S. producer noted that Japan restricts its market for copper clad laminates by using import policies and anticompetitive practices, including qualification requirements which delay the market entry of foreign producers' products, resulting in lost market opportunities.¹⁸⁸ Other nonferrous metal producers have noted similar concerns.¹⁸⁹ The industry representative concluded that if Japan were to drop these restrictions, opportunities for U.S. producers would increase.¹⁹⁰

H.C. Starck, a U.S. manufacturer of tantalum powder and tantalum wire, supports tariff elimination for these products only if the raw material that it imports to manufacture these products, potassium tantalum fluoride,¹⁹¹ is also included in the ITA. H.C. Starck stated that a reduction of U.S. import duties on tantalum powder without a compensating reduction in the duty on potassium tantalum fluoride would threaten the company's tantalum operations in the United States. H.C. Stark maintains that the lack of a compensating reduction in the U.S. tariff on potassium tantalum fluoride would allow foreign competitors to import tantalum powder into the United States duty free while H.C. Starck would have to pay a duty on the basic raw material, thus competing at a relative disadvantage. The company is highly dependent on potassium tantalum fluoride imports as the chemical compound accounts for as much as one-half to two-thirds of the price of tantalum powder and is not available in the United States.¹⁹² According to H.C. Starck, 90 percent of tantalum powder is used to manufacture tantalum capacitors.

Reynolds Metals Company (Reynolds), a major producer of primary aluminum metal and fabricated aluminum products, opposes the inclusion of certain aluminum foil products in the ITA.¹⁹³ Reynolds estimates that less than 1 percent of all aluminum foil produced and consumed in the United States is used in the production of capacitors and resistors, and that aluminum foil is principally used as a consumer and industrial packaging and insulating material. In addition, Reynolds states that aluminum foil is a commodity product which is extremely sensitive to prices and cyclical market pressures. Further, certain markets directly or indirectly subsidize the manufacture and export of nonferrous metal products, including aluminum, to the

¹⁸⁴ Ibid.

¹⁸⁵ Dale S. Shepherd, Rogers Corporation, written submission to USITC on inv. 332-390, Mar. 23, 1998.

¹⁸⁶ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹⁸⁷ Ibid.

¹⁸⁸ Ibid.

¹⁸⁹ U.S. industry representatives, telephone interviews by USITC staff, Mar. 1998.

¹⁹⁰ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹⁹¹ HTS classification 2826.90.

¹⁹² David L. Nocella, H.C. Starck, testimony at USITC hearing on inv. 332-390, Mar. 19, 1998.

¹⁹³ Specifically, HTS headings 7607.11.30, 7607.11.60, 7607.19.10, and 7607.19.60. Margaret R. Polito, Neville, Peterson, and Williams, Counsel to Reynolds Metals Company, written submission to USITC on inv. 332-390, Mar. 26, 1998.

disadvantage of U.S. producers. U.S. tariffs of 5.3 to 5.8 percent have served to protect U.S. producers from subsidized or other low-priced imports of nonferrous metals products. Reynolds strongly suggests that any reduction of tariffs on these products should be considered only in the context of multilateral negotiations focused on the aluminum or metal products industries, or at the very least be limited to the inclusion of a narrow tariff line such as “etched capacitor foils of *HTS* subheading 7607.19.10.”¹⁹⁴

Plastics

The plastic products discussed in this chapter are primarily in the form of film, foil, and tape which may be used to produce capacitors, semiconductors and other electronic components. However, the U.S. industry estimates that the percentage of plastics used by the IT industry ranges from zero to 25 percent depending on the type and composition of the plastic.¹⁹⁵ Plastics are primarily used in a number of non-IT industries such as packaging. U.S. imports of plastics that are being considered for inclusion in the ITA totaled \$1.4 billion in 1997.¹⁹⁶ U.S. exports of plastics were considerably higher, valued at approximately \$2.5 billion. Major suppliers of U.S. plastics imports were Japan, Canada, and the EU. Leading markets for U.S. exports were the EU, Canada, and Mexico.

Including these plastics in the ITA will likely have a negligible effect on U.S. exports to Canada; Canada’s tariffs on U.S. plastics have been eliminated under the FTA and NAFTA. However, the elimination of the EU’s 6.3 to 6.5 percent tariffs on plastics could provide increased market access opportunities for producers. Other opportunities may arise in markets such as India and Indonesia, with 40 percent tariffs; Romania, with 35 percent tariffs, and Malaysia and Thailand, both with 30 percent tariffs. Duty rates in the United States and Japan are relatively low. U.S. tariffs on plastics range from 4.2 to 6.5 percent although tariffs on epoxide resins may be free if such compounds are included in the Pharmaceutical Annex. Japan’s rates range from 2.8 to 4.8 percent.

Several U.S. producers anticipate that U.S. tariff elimination would have a negative effect on their competitiveness in the U.S. market. The United States is the largest single market for these products, which are low-margin, price-sensitive commodities. U.S. producers believe that the elimination of U.S. tariffs would allow low-cost producers, especially from Asia, to undercut U.S. producers’ prices.¹⁹⁷ Shell Chemical Company (Shell) firmly opposes the inclusion of epoxide resins¹⁹⁸ in the ITA. According to Shell, epoxide resins are not directly IT-related; instead, users of epoxide resins combine the product with glass, copper, and other materials to manufacture electrical laminates, which in turn are used in the manufacture of printed circuits and encapsulates of microchips and other electronic components.¹⁹⁹ However, Shell states that only 17 percent of epoxide resins produced in the United States are used in the IT industry, and that epoxide resins are used primarily for the manufacture of non-IT coatings, textiles, adhesives, fiber-reinforced plastics, and for other structural and industrial applications. Shell states that tariff reduction or elimination on epoxide resins could lead to a rise in imports and a decrease in U.S. production, displacing the market share of U.S. firms. Imports

¹⁹⁴ Ibid.

¹⁹⁵ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹⁹⁶ However, as many of these products do not comprise the entire 8- or 10-digit *HTS* categories in which they are classified, these figures overestimate actual trade.

¹⁹⁷ Industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

¹⁹⁸ *HTS* 3907.30.00.

¹⁹⁹ Marc C. Herbert, Shell Chemical Company, written submission to USITC on inv. 332-390, Mar. 13, 1998.

from Asia are especially of concern to Shell as excess capacity in Asia and the economic downturn in that region could prompt Asian producers to increase their shipments to the U.S. market.²⁰⁰

Hoechst Diafoil Company (Hoechst) argues that polyethylene terephthalate (PET) film,²⁰¹ as well as other plastics and rubber articles which compete directly with PET film, should not be included in the ITA. Hoechst estimates that less than 10 percent of all PET film is used in the manufacture of finished IT products such as magnetic tapes and disks. In comparison, non-IT uses include the manufacture of building materials, clothing accessories, office supplies, insulation, and food packaging. Hoechst maintains that PET film is import sensitive and that the elimination of the U.S. tariff would lead to lost sales and a decrease in production and employment in the United States.²⁰² The company further states that negotiations expanding the Chemical Harmonization Tariff Agreement would be a better forum for such discussions. In addition, the company questions the ability of customs officials to distinguish end uses for PET film upon importation. Finally, Hoechst is concerned that countries that are not signatories to the ITA, such as Brazil, would benefit from the lowering of U.S. import duties without making any reciprocal concessions.²⁰³

Chemicals, raw materials, or compounds

The remaining items in this chapter are used as inputs and include a wide variety of chemicals, compounds, and raw materials such as tantalum ores, concentrates, and oxides; silver nitrate and other silver compounds; pigments and dyes; organic composite solvents and thinners; flux and solder compounds; and fused quartz and silica, among other items. IT uses for these products are varied and appear in table 6-2. However, with certain exceptions, most of these materials appear to be employed more extensively in non-IT industries.²⁰⁴ For instance, arsenic is used in the production of lead alloys; certain pigments and dyes are used to manufacture paints, plastic articles, and fabrics; flux compounds are used for welding, plumbing, and electrical applications; and organic composite solvents are used in paints, industrial cleansers, and pharmaceuticals.

U.S. imports of these inputs were valued at \$1.6 billion in 1997.²⁰⁵ Japan and the EU were the primary suppliers of these imports, accounting for a combined 80 percent of the total. Canada was the third leading supplier to the U.S. market. U.S. exports in 1997 were valued at \$1.0 billion. The top three markets for U.S. producers were the EU, Canada, and Mexico. These three markets, combined, accounted for almost half of all U.S. exports.

Several U.S. producers have noted that tariff elimination on silver nitrate and solder and flux compounds would increase their foreign market opportunities.²⁰⁶ Shipments of other inputs to the EU may rise slightly as the EU's tariffs range from zero to 6.5 percent. Also, opportunities may arise in India, a major market for flux and solder compounds. However, including most other inputs in the ITA will likely have a negligible effect for U.S. producers. Of the two leading U.S. export markets, Canada's tariffs on U.S. exports are being eliminated under the NAFTA and Mexico is not an ITA signatory. Some opportunities could arise in the U.S. market where tariffs are 4.8 percent and in the Japanese market where tariffs range from zero to 8.8 percent.

²⁰⁰ Marc C. Herbert, Shell Chemical Company, written submission to USITC on inv. 332-390, Mar. 24, 1998.

²⁰¹ HTS 3920.62.

²⁰² There is an outstanding antidumping order in place on certain imports from Korea (A-580-807).

²⁰³ Dennis Trice, Hoechst Diafoil Company, written submission to USITC on inv. 332-390, Mar. 24, 1998.

²⁰⁴ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

²⁰⁵ Based on official statistics of the USDOC. However, as many of these products do not comprise the entire 8- or 10-digit HTS categories in which they are classified, these figures overestimate actual trade.

²⁰⁶ U.S. industry representatives, telephone interviews by USITC staff, Feb.-Mar. 1998.

U.S. industry representatives believe that eliminating tariffs on phosphorous oxychloride, silver nitrate, tetraethylorthosilicate, hexamethyldisilazane, pigments and dyes, and solder compounds would have an adverse impact on their business. Most U.S. tariffs on these products are 3.7 percent; however, tariffs on pigments and dyes range from free to 6.5 percent and for solder compounds from 5 to 6.5 percent. Other representatives, on behalf of the chemicals, pigments and dyes, and photoresists and developers industry, also were concerned with increased imports from low-labor cost countries such as China and India, and nontariff barriers in foreign markets.²⁰⁷ Japan and the EU were cited for nontariff barriers such as standards, testing, labeling, certification, approvals and registration. Other markets in Asia such as Korea and Taiwan also were noted as hindering U.S. firms by using nontariff measures such as unfair import policies.²⁰⁸

²⁰⁷ U.S. industry representatives, telephone interviews by and faxes to USITC staff, Mar. 1998.

²⁰⁸ Ibid.

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
2615.90.6060 Tantalum ores and concentrates	None	Tantalum compounds	0	China Australia	China Brazil Neth.	Australia Ethiopia Brazil	<ul style="list-style-type: none"> Current U.S. tariff is free 	1
2804.80.00 Arsenic	Gallium arsenide for semiconductors	Lead alloys	<1	Japan Germany China	Germany Chile Japan	Germany Japan China	<ul style="list-style-type: none"> Current U.S. tariff is free No known U.S. production except refining 	22
2812.10.5010(pt.) Phosphorous oxychloride	Dopant for semiconductors	Flame retardants Pesticides	<2	China India EU	Taiwan Mexico Singapore	Japan UK Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact and are concerned about imports from India and China 	23
2821.10.0050(pt.) Iron manganese zinc oxide (Fe ₂ (MnZn)O ₄) (CAS number 12645-49-7)	Electronic ferrites Magnetic materials	None known	100	Germany France Japan	Canada Japan Mexico	Japan Germany Norway	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	7
2825.90.90(pt.) Tantalum oxides, peroxides, and hydroxides	Manufacture of capacitors Phosphors for X-rays	Tantalum carbides	<5	Germany Brazil Russia	Japan Sweden Germany	Canada Germany Brazil	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	8
2843.21.00 Silver nitrate	Photographic film emulsion	Mirrors Catalysts	50	U.S. Japan EU	Canada Australia Mexico	Canada UK France	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities 	10
2843.29.00 Other silver compounds other than silver nitrate	Batteries Solder	Silver plating Jewelry	10	U.S. Japan EU	Taiwan Japan Korea	France Japan Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	10

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
2849.90.50(pt.) Tantalum carbide	Manufacture of capacitors and resistors	Manufacture of cutting tools	<1	South Africa EU U.S.	Korea Japan Canada	South Africa Trinidad & Tobago Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	11
2917.12.20(pt.) Ammonium adipate	Vinyl coating of capacitors and resistors	Plastic and rubber products	<5	U.S. Germany Japan	Taiwan Japan Singapore	Canada UK Belgium	<ul style="list-style-type: none"> Current U.S. tariff is 0.1 cent/kilogram + 13.2 percent and subject to 10-year Uruguay Round staging 	12
2920.90.50(pt.) Tetraethylorthosilicate	Dielectric coating of semiconductors	Lenses, mirrors, and lasers Coating catalyst Organic synthesis	75	Japan Germany France	Neth. Japan Canada	Germany Canada Israel	<ul style="list-style-type: none"> One known U.S. producer anticipates adverse impact 	24
2931.00.9010(pt.) Hexamethyldisilazane	Manufacture of semiconductors	Gas chromatography products Organic synthesis	75	U.S. Japan Germany	Belgium Brazil Australia	Germany Japan Belgium	<ul style="list-style-type: none"> U.S. trade association does not support tariff elimination 	24
3206.49.10 Concentrated dispersions of pigments in plastics materials	Manufacture of resistors, capacitors, other electronic components	Manufacture of paints, miscellaneous plastic articles, textile inks and fabrics	<10	U.S. Canada Germany	Canada Mexico Germany	Canada Germany Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	13
3206.49.20 Coloring preparations of heading 3206 based on iron oxides	Manufacture of resistors, capacitors, other electronic components	Manufacture of paint pigment, polishing compound, metals	<1	U.S. Germany Canada	Canada Mexico Germany	Germany Japan Sweden	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate minimal impact 	13

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3206.49.30 Coloring preparations of heading 3206 based on zinc oxides	Manufacture of resistors, capacitors, other electronic components	Accelerator activator Pigment Reinforcing agent for rubber	<1	U.S. Sweden Japan	Canada Switz. Mexico	Japan Spain Switz.	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate minimal impact 	13
3206.49.50 Other coloring matter of heading 3206 not based on hexacyanoferrates, iron oxides, zinc oxides, or carbon black; not a concentrate of pigments in plastics or luminophores	Manufacture of capacitors and resistors	Printing inks	50	U.S. Germany Japan	Canada Switz. Mexico	Germany Canada Neth.	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate minimal impact 	13
3211.00.00 Prepared driers	Preparation of chemicals for printed circuits and electronic components	Drying agent for paints, varnishes, and inks	<1	U.S. Japan Germany	Canada Japan Mexico	Canada Spain India	<ul style="list-style-type: none"> Current U.S. tariff is 3.7 percent 	14
3707.90.3290(pt.) Photoresists and developers for production of semiconductors or printed circuits	Manufacture of semiconductors, printed circuits	None	100	Japan U.S. Germany	Canada Japan UK	Japan Neth. Korea	<ul style="list-style-type: none"> Current U.S. tariff is 6.9 percent 	31
3810.10.00(pt.) Solder paste	Manufacture of printed circuits	Joining electrical components	90	U.S. Japan Taiwan	Mexico Canada Singapore	France Japan Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities 	18, 32

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3810.90.10(pt.) Flux containing 5 percent or more by weight of one or more aromatic or modified aromatic substances	Manufacture of printed circuits	Welding Plumbing Electrical applications	<10	Canada Japan UK	India Canada France	Canada Japan UK	<ul style="list-style-type: none"> Current U.S. tariff is 2.2 cents/kilogram + 10.8 percent and subject to 10-year Uruguay Round staging Some U.S. producers anticipate increased foreign market opportunities 	19, 33
3810.90.20(pt.) Flux consisting wholly of inorganic substances	Manufacture of printed circuits	Welding Plumbing Electrical applications	<10	Germany UK Belgium	India Canada France	Germany UK Belgium	<ul style="list-style-type: none"> Current U.S. tariff is free Some U.S. producers anticipate increased foreign market opportunities 	19, 33
3810.90.50(pt.) Flux, not wholly of inorganic substances and containing less than 5 percent by weight of aromatic or modified aromatic substances	Manufacture of printed circuits	Welding Plumbing Electrical applications	<10	Japan Neth. Mexico	India Canada France	Japan Neth. Mexico	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities Current U.S. tariff is 5 percent 	19, 33
3814.00.10 Organic composite solvents and thinners, containing 5 percent or more but not more than 25 percent by weight of one or more aromatic or modified aromatic substances	Preparation of chemicals and materials for printed circuits and electronics components	Used as a solvent and diluent in paints, vanishers, industrial cleansers, printing inks, and pharmaceuticals	<5	U.S. Japan Germany	Canada Mexico Korea	Canada UK Mexico	<ul style="list-style-type: none"> Current U.S. tariff is 2.2 cents/kilogram + 10.8 percent and subject to 10-year Uruguay Round staging 	20

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3814.00.20 Organic composite solvents and thinners, containing more than 25 percent by weight of one or more aromatic or modified aromatic substances	Preparation of chemicals and materials for printed circuits and electronics components	Used as a solvent and diluent in paints, vanishers, industrial cleansers, printing inks, and pharmaceuticals	<5	U.S. Japan Germany	Canada Mexico Korea	Canada UK Norway	<ul style="list-style-type: none"> Current U.S. tariff is 7.2 percent 	20
3814.00.50 Organic composite solvents and thinners containing less than 5 percent by weight of one or more aromatic or modified aromatic substances	Preparation of chemicals and materials for printed circuits and electronics components	Used as a solvent and diluent in paints, vanishers, industrial cleansers, printing inks, and pharmaceuticals	<5	U.S. Japan Germany	Canada Mexico Korea	Canada Japan UK	<ul style="list-style-type: none"> Current U.S. tariff is 6 percent 	20
3907.30.00 Epoxide resins	Manufacture of semiconductors, capacitors	Adhesives Thermoset plastic products	<10	U.S. Japan Germany	Canada Mexico Taiwan	Japan Canada Korea	<ul style="list-style-type: none"> Current U.S. tariff is free for products classified both here and listed in the Pharmaceutical Annex Some U.S. producers anticipate adverse impact Shell Chemical Co. opposes inclusion in ITA-II Some U.S. producers anticipate minimal impact 	35

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3907.30.00(pt.) Molding compound for semiconductor devices, containing more than 70 percent silica, by weight, and having less than 75 parts per million of combined water extractable content of chloride, bromide, potassium, and sodium	Manufacture of semiconductors	None	100	U.S. Japan Germany	Canada Mexico Taiwan	Japan Canada Korea	<ul style="list-style-type: none"> Current U.S. tariff is free for products classified both here and listed in the Pharmaceutical Annex Some U.S. producers anticipate adverse impact Some U.S. producers anticipate minimal impact 	55
3919.10.20 Self-adhesive plates, sheets, film, foil, tape, strip and other flat shapes of plastics, in rolls of a width not exceeding 20 cm, not having a light-reflective surface produced in whole or in part by glass grains	Manufacture of capacitors	Self-adhesive tape Laminating plastic	<5	U.S. Japan Germany	Mexico Belgium Neth.	Canada Taiwan Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Outstanding antidumping duty order in place on certain imports from Italy (A-475-059) Hoechst Diafoil Co. opposes inclusion in ITA-II 	38, 39
3919.90.5060 Self-adhesive plates, sheets, film, foil, tape, strip, and other flat shapes of plastics, other than reflectorized sheeting, filament reinforced tape, electrical tape, transparent tape, not in rolls of a width of 20 cm or less	Manufacture of semiconductors and electronic components	Packaging	<5	U.S. Japan Germany	Canada Mexico Neth.	Japan Canada Germany	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy (A-475-059) 	57, 58

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3920.20.00 Other plates, sheets, film, foil and strip of polymers of propylene, noncellular and not reinforced, laminated, supported or similarly combined with other materials	Manufacture of capacitors	Snack food packaging Motor vehicles	<1	U.S. Canada Japan	Canada Mexico Japan	Canada Japan Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Hoechst Diafoil Co. opposes inclusion in ITA-II 	40
3920.61.00 Other plates, sheets, film, foil and strip of polycarbonates, noncellular and not reinforced, laminated, supported or similarly combined with other materials	Manufacture of capacitors Medical device packages	Microwaveable containers	<5	France Germany Japan	Canada Neth. Korea	Israel Canada India	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Hoechst Diafoil Co. opposes inclusion in ITA-II 	41
3920.62.00 Other plates, sheets, film, foil and strip of polyethylene terephthalate, noncellular and not reinforced, laminated, supported or similarly combined with other materials	Manufacture of capacitors, membrane switches, diskettes	Flexible packaging	<25	U.S. Japan Korea	Canada Germany Neth.	Korea Japan UK	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Outstanding antidumping duty order in place on certain imports from Korea (A-580-807) Hoechst Diafoil Co. opposes inclusion in ITA-II 	42

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3920.69.00 Other plates, sheets, film, foil and strip of saturated polyesters, other than polycarbonates and polyethylene terephthalate, noncellular and not reinforced, laminated, supported or similarly combined with other materials	Manufacture of capacitors	Flexible packaging	<25	France Germany Japan	UK Neth. Japan	Japan India Israel	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Hoechst Diafoil Co. opposes inclusion in ITA-II 	42, 43
3920.99.20 Flexible sheets, film, and strip of plastics other than acrylic polymers, amino or pherdic resins, or polymers of ethylene, propylene, styrene, vinyl chloride, polycarbonates, polyesters, cellulose or derivatives, polyvinyl butyral, or polyamides, noncellular and not reinforced, laminated, supported or similarly combined with other materials; 0.152 mm or less in thickness, or in rolls	Manufacture of capacitors Piezoelectric devices	Wire and cable covering	<1	U.S. Canada Italy	Canada Japan Mexico	Canada Germany Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Hoechst Diafoil Co. opposes inclusion in ITA-II 	43, 44, 45, 62

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3921.90.4090 Flexible plates, sheets, film, foil, and strip of plastics, except cellular, reinforced, laminated, supported or similarly combined with other materials other than textiles or paper	Manufacture of capacitors, semiconductors, printed circuits Medical device packaging	Packaging Microwaveable containers	<5	U.S. Canada Japan	Mexico Japan Brazil	Canada Japan Korea	<ul style="list-style-type: none"> One U.S. producer anticipates adverse impact Some U.S. producers anticipate minimal impact Hoechst Diafoil Co. opposes inclusion in ITA-II 	47, 59
4804.31.10 Unbleached condenser paper weighing over 15 g/m ² but not over 30 g/m ² , in rolls or sheets	Manufacture of capacitors, transformers, cables, batteries	Photographic applications	75	Japan Germany U.S.	Canada Mexico UK	France Germany Japan	<ul style="list-style-type: none"> Current U.S. tariff is 1.2 percent and is subject to 10-year Uruguay Round staging Sole U.S. producer anticipates adverse impact 	64
4804.31.20 Unbleached condenser paper weighing not over 15 g/m ² or weighing over 30 g/m ² but not over 150 g/m ² , in rolls or sheets	Manufacture of capacitors, transformers, cables, batteries	Photographic applications	75	Japan Germany U.S.	Canada Japan Singapore	Canada Japan Germany	<ul style="list-style-type: none"> Current U.S. tariff is 2.6 percent and is subject to 10-year Uruguay Round staging Sole U.S. producer anticipates adverse impact 	65
4804.39.20 Bleached condenser paper weighing 150 g/m ² or less, in rolls or sheets	Manufacture of capacitors, transformers, cables, batteries	Photographic applications	75	Japan Germany U.S.	Canada Mexico China	Canada France Germany	<ul style="list-style-type: none"> Current U.S. tariff is 2.6 percent and is subject to 10-year Uruguay Round staging Sole U.S. producer anticipates adverse impact 	66
4805.60.20 Condenser paper, weighing 150 g/m ² or less, in rolls or sheets	Manufacture of capacitors, transformers, cables, batteries	Photographic applications	75	Japan Germany U.S.	Malaysia Canada Australia	Japan France	<ul style="list-style-type: none"> Current U.S. tariff is 2.6 percent and is subject to 10-year Uruguay Round staging Sole U.S. producer anticipates adverse impact 	68

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
7002.20.10(pt.) Rods of fused quartz having a hydroxyl ion content of 30 parts per million or less	Semiconductor and printed circuit board manufacturing equipment Telecommunications equipment	Specialty lamps	90	U.S. Japan EU	China HK Australia	Japan Germany UK	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	75
7002.31.00(pt.) Tubes of fused quartz having a hydroxyl ion content of 30 parts per million or less	Semiconductor and printed circuit board manufacturing equipment Telecommunications equipment Chemical laboratory applications	Industrial applications Specialty lamps	90	U.S. Japan EU	Japan Germany Mexico	Germany Japan Neth.	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	76
7006.00.4050(pt.) Synthetic fused silica (100 percent SiO ₂) photomask blank substrates in squares having a surface area of 150 cm ² or more but not over 522 cm ² and a thickness of 2.2 mm or more but not over 6.45 mm	Photomasks for semiconductor production	None	100	Japan	None	Japan Mexico China	<ul style="list-style-type: none"> No U.S. production identified 	77
7017.10.60(pt.) Crucibles of fused quartz or other fused silica used in producing single crystal silicon	Semiconductor and printed circuit manufacturing	None	100	U.S. Japan EU	Dom. Rep. Korea Germany	Germany UK Japan	<ul style="list-style-type: none"> U.S. 1997 imports less than \$3.5 million U.S. producers anticipate minimal impact 	81

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
7106.92.50(pt.) Silver flakes	Printing ink for electronic applications	None	100	U.S. Japan	Canada UK Mexico	Canada Germany France	• U.S. producers anticipate adverse impact	85
7108.13.70(pt.) Wire of gold, not plated or coated, having a diameter of 0.05 mm or less, and containing 99.9 percent by weight of gold, with dopants added to control wirebonding characteristics	Integrated circuits for electronic applications Radio frequency devices	None	100	U.S. Japan Korea	Canada Switz. Singapore	Canada Peru Malaysia	• U.S. producers anticipate adverse impact	84
7408.19.00(pt.) Wire of refined copper having a diameter of 0.4 mm or more but not more than 0.85 mm	Manufacture of capacitors, audio headphones	None	100	U.S. China France	Canada Mexico Malaysia	Turkey China Canada	• U.S. producers anticipate adverse impact	91
7408.22.50(pt.) Wire of copper-nickel base alloy, not coated or plated with metal, having a diameter of 0.5 mm or more but not more than 0.65 mm	Manufacture of capacitors and resistors, audio headphones Wiring harnesses for computers, television receivers	Electrical wire Motor vehicle wiring harnesses	50	U.S. China Germany	Mexico Canada Ireland	Germany Japan Switz.	• U.S. producers anticipate adverse impact	86
7409.21.0090(pt.) Copper-zinc base alloy strip in coils, having a width of 50 mm or more but not more than 55 mm and a thickness of 2 mm or more but not more than 3 mm	Manufacture of capacitors	None	100	U.S. Germany Japan	Canada Mexico Japan	Switz. Hungary Germany		93

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
7410.21.30 Refined copper clad laminates	Manufacture of printed circuits	None	100	Germany Japan Taiwan	Canada Belgium Germany	Taiwan Japan China	• U.S. producers anticipate adverse impact	80
7410.21.30(pt.) Unreinforced refined copper clad laminates	Flexible printed circuit boards used in computers	None	100	U.S. UK Japan	Canada Belgium Germany	Taiwan Japan China	• U.S. producers anticipate adverse impact	110
7419.99.5050(pt.) Sputtering targets, of copper or copper alloys	Manufacture of capacitors and resistors	None	100	Japan U.S. Taiwan	Mexico Canada Germany	China Taiwan India	• U.S. tariff will be free in 1999	87
7508.90.50(pt.) Sputtering targets, of nickel or nickel alloys	Manufacture of capacitors and resistors	None	100	Japan U.S. EU	France Canada Japan	UK Canada Germany		87
7605.19.00(pt.) Wire of aluminum, not alloyed, containing 99.88 percent or more of aluminum and having a thickness of 0.2 mm or more but not over 0.25 mm and a width of 1.9 mm or more but not over 2.4 mm, in coils	Manufacture of capacitors, voice coils for audio systems, and actuator coils for disk drives	None	100	U.S. Japan Canada	Brazil France UK	Japan Argentina Canada	• U.S. producers anticipate minimal impact	94
7606.11.3060(pt.) Strip of aluminum, not alloyed, containing 99.88 percent or more of aluminum and having a thickness of 0.38 mm and a width 6.35 mm, in coils	Manufacture of capacitors, voice coils for audio systems, and actuator coils for disk drives	None	100	U.S. Japan Canada	Brazil France UK	Japan Argentina Canada	• U.S. producers anticipate minimal impact	94

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
7607.11.30 Aluminum foil, rolled but not further worked, of thickness not exceeding 0.01 mm, not backed	Manufacture of electronic components	Packaging (food, pharmaceuticals) Insulating material	<1	U.S. Canada France	Mexico Japan Canada	Germany Canada Switz.	<ul style="list-style-type: none"> Reynolds Metals Co. opposes inclusion in ITA-II Some U.S. producers anticipate minimal impact Some U.S. producers anticipate increased foreign market opportunities 	94, 111
7607.11.60(pt.) Aluminum foil containing 99.88 percent or more of aluminum and having a thickness of 0.13 mm or more but not over 0.15 mm and a width of 1.9 mm or more but not over 3.2 mm, not backed, in coils	Manufacture of capacitors, voice coils for audio systems, and actuator coils for disk drives	None	100	U.S. Japan Canada	Canada Brazil HK	Canada Germany Spain	<ul style="list-style-type: none"> Reynolds Metals Co. opposes inclusion in ITA-II Some U.S. producers anticipate minimal impact 	94
7607.11.60(pt.) Aluminum foil, containing 99.96 percent or more of aluminum rolled but not further worked, of a thickness exceeding 0.01 mm but not exceeding 0.15 mm, not backed	Manufacture of electronic components	None	100	U.S. Canada France	Canada Brazil HK	Canada Germany Spain	<ul style="list-style-type: none"> Reynolds Metals Co. opposes inclusion in ITA-II Some U.S. producers anticipate increased foreign market opportunities Some U.S. producers anticipate minimal impact 	112
7607.11.9090(pt.) Aluminum foil containing 99.88 percent or more of aluminum and having a thickness of over 0.15 mm but not over 0.2 mm and a width of 2.3 mm or more but not over 4 mm, in coils	Manufacture of capacitors, voice coils for audio systems, and actuator coils for disk drives	None	100	U.S. Japan Canada	Mexico Canada Taiwan	Germany Japan Costa Rica	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	94

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
7607.19.10 Etched aluminum capacitor foil, having a thickness not exceeding 0.2 mm, not backed	Manufacture of electrolytic capacitors	None	100	Japan France Italy	Mexico Canada Taiwan	Japan Italy Costa Rica	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Reynolds Metals Co. opposes inclusion in ITA-II 	95
7607.19.60 Aluminum foil of a thickness not exceeding 0.2 mm, other than etched capacitor foil, not backed, not elsewhere specified or included	Manufacture of electrolytic capacitors	Flexible packaging applications	10	U.S. Switz. Korea	Mexico Canada Taiwan	Canada Germany UK	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Reynolds Metals Co. opposes inclusion in ITA-II 	95
7904.00.00(pt.) Wire of zinc, containing 99.9 percent or more of zinc, having a diameter of 2 mm or more but not over 3 mm	Manufacture of resistors, capacitors	Marine environments Construction	25	Belgium France Germany	Mexico Canada Jamaica	South Africa Canada Korea	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Only 2 known U.S. producers 	114
8003.00.00(pt.) Tin wire solder, containing 60 percent tin	Used in the attachment of leads to electronic components	Plumbing supplies	100	Canada	Canada Mexico Philippines	Canada Japan Malaysia	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact 	99
8005.00.10 Tin foil of a thickness not exceeding 0.2 mm	Manufacture of electronic capacitors Medical applications (patches placed on EKG patients)	None known	90	Germany	Mexico Taiwan Philippines	Germany UK France	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact 	115

Table 6-2
Paper, metal, plastic and other inputs for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8103.10.6030 Tantalum powders	Manufacture of tantalum capacitors	None known	100	China	Israel Germany Japan	Japan Thailand China	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact unless all inputs, including HTS no. 2826.90, are duty free 	100
8103.90.00(pt.) Wire of tantalum	Manufacture of tantalum capacitors	None known	100	China	Japan Germany UK	China Austria UK	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact unless all inputs, including HTS no. 2826.90, are duty free 	101
8311.30.30(pt.) Flux-cored wire lead-tin solder	Electrical contacts for electronic products Assembly of electronic components	Joining metals	5	Germany France U.S.	Taiwan Singapore Mexico	Korea Canada UK	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	98, 108
8311.30.60(pt.) Flux-cored wire solder (other than lead-tin solder), of base metal	Electrical contacts for electronic products Assembly of electronic components	Joining metals	25	Germany France U.S.	Mexico HK Canada	Japan Israel UK	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact Current U.S. tariff is free 	98, 108

CHAPTER 7

Industrial Equipment and Miscellaneous Products

John Davitt

Introduction

This chapter covers products that are used primarily in non-IT applications. These products are typically used in broader industrial applications that may include information technology industries or are used in products that are upstream from the information technology industries. Included in this group are products used for industrial process control; power generation, transmission, and regulation; heating, ventilation, and air conditioning; cutting, drilling, and threading; and various other functions such as cleaning, fastening, and sealing. Table 7-1 lists the subgroups discussed, selected products within each subgroup, and some of the applications for these products. Table 7-2, at the end of this chapter, lists all of the individual products covered in this chapter; summarizes descriptions and uses; identifies the major producing countries and U.S. trading partners; and provides trade-related information gathered from U.S. industry and government sources.

Trade Patterns and Market Opportunities

The United States is a major producer of each of the products covered by this chapter and one of the three-largest producers of all but a few. The highest tariff barriers faced by U.S. exporters of these products are primarily in developing countries and Central European countries. Indonesia's and Romania's tariffs for all of the products covered in this chapter are 40 percent and 35 percent, respectively, while the comparable rates for Malaysia, Thailand, and the Philippines generally exceed 20 percent and range as high as 50 percent.²⁰⁹ India's tariffs are either 25 percent or 40 percent for most of the products covered in this chapter. The trade data presented below are based on 8- and 10-digit *HTS* classifications, although some of the products covered comprise only part of these categories. Thus, import and export values presented below for each subgroup overstate the actual values.

Canada, Mexico, the United Kingdom, Japan, and Korea are the largest markets for U.S. exports of the products included in this chapter. Tariff elimination through the ITA-II process will have no impact on U.S. exports to Canada and Mexico because U.S. exports already enter Canada duty-free under the U.S.-Canada Free Trade Agreement (FTA) and the NAFTA and Mexico is not a signatory to the ITA. The Japanese tariff rate is free for all of the imports in this chapter with the exception of insulated winding wire and ignition wiring sets which have a 4.8-percent duty, so U.S. exporters can be expected to gain very little in this market. U.S. export opportunities appear most promising in Korea which imposes tariffs between 8 percent and 30 percent, in the high-tariff economies mentioned above, and, to a lesser extent, in the EU where tariffs for these products range from free to 6 percent.

²⁰⁹ Unless otherwise indicated, tariffs cited in this report are the final Uruguay Round concession rates which enter into effect Jan. 1, 1999. *Most-Favoured Nation Tariff Schedules, Annexes to Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations (Marrakesh Protocol)*, Apr. 15, 1994.

Table 7-1
Major product groupings: Industrial equipment and miscellaneous products

Group	Principal products/uses
Electric motors	<ul style="list-style-type: none"> AC and DC electric motors ranging in output from under 19 watts to those exceeding 373 kilowatts a relatively small share of motors with outputs under 746 watts are used in computers, office machines, and consumer electronics no IT uses have been identified for motors exceeding 746 watts
Machine tools	<ul style="list-style-type: none"> lathes, milling, tapping, threading, and other metal working machines as well as certain interchangeable parts for cutting, drilling, and threading these tools are primarily used to manufacture non-IT products such as motor vehicles and aircraft IT uses for these products are estimated to account for less than 5 percent of total applications
Power generation, transmission, and regulation equipment	<ul style="list-style-type: none"> transformers, surge protectors, batteries, fuses, circuit breakers, switches, sockets, and plugs used in IT products such as computers, office machines, communications equipment, and consumer electronics, and to produce and distribute power in IT manufacturing facilities the vast majority of applications for these products are non-IT
Industrial process controls	<ul style="list-style-type: none"> various instruments used to control industrial processes, including voltage regulators and other regulating and control apparatus no specific IT uses have been identified for most of these products
Compressors and fans	<ul style="list-style-type: none"> primarily used in heating, ventilation, and air conditioning equipment certain types of vacuum pumps are used in semiconductor processing, analytical instrumentation, and computer hardware no specific IT uses have been identified for most other compressors and fans
Other products	<ul style="list-style-type: none"> certain detergents and glues PVC bottles gaskets, washers, and screws the vast majority of uses are non-IT

Source: Compiled by USITC staff.

The elimination of tariffs on these products in the United States is likely to create market opportunities for the major global producers of these products that now face U.S. import duties of up to 8.5 percent. These producers, including the EU, Japan, Korea, and Taiwan, are likely to increase their market share at the expense of countries such as Canada and Mexico, which already export to the United States duty-free. Further, some of these opportunities in the U.S. market will result from the diminished market share of the domestic industry. The recent devaluations of the Korean currency combined with the country's need for foreign currency are likely to provide Korean exporters with impetus to increase their share of markets in the United States, the EU, and Canada. Other Asian economies affected by the recent crisis such as Thailand and Indonesia might also seek new market opportunities presented by a reduction in tariffs, although these countries are not presently among the leading global producers of the products covered in this chapter.

The nontariff barriers confronting U.S. products in this chapter will, to various degrees, restrict the efficiencies and market growth opportunities that would otherwise result from tariff elimination. Testing and certification requirements present formidable trade barriers in countries that require such actions within the importing country to assure compliance with national regulatory standards. Because many products must

undergo similar or identical procedures in the country of origin, these duplicative procedures needlessly add to the cost of the imported product and delay shipments. Further, the number of required certifications is increasing continuously. For example, new electromagnetic interference and safety requirements have been introduced recently in Mexico,²¹⁰ China,²¹¹ Taiwan, Korea, and certain countries in Central Europe. Many testing and certification procedures required by these countries are not based on open, transparent, and consistent rules and procedures.²¹²

The certification processes associated with the Common European (CE) mark and Japan's International Electrical Code (IEC) have proved especially daunting to U.S. manufacturers. The CE mark is enforced inconsistently, which causes unpredictable delays in the delivery of products to the EU market. The IEC standards are comparable to the minimum standards set by the National Electrical Manufacturers Association (NEMA) in the United States, but are sufficiently different from U.S. standards as to require U.S. producers to manufacture a separate product line if they want to sell in this market.²¹³ In so doing, U.S. producers lose some of the economies of scale associated with manufacturing a single product.

Electric motors

The major producers of the electric motors included in this chapter are the United States, the EU, Japan, and China. U.S. imports of the motors covered in this chapter were \$1.9 billion in 1997. The principal U.S. import sources for these motors were Mexico, Japan, Canada, and China, which together accounted for 64 percent of the total in 1997. U.S. tariff rates for these products ranged from free for certain DC motors with an output between 750 watts and 75 kilowatts to 6.7 percent for motors not exceeding 37.5 watts. Outstanding antidumping duty orders are currently in place for U.S. imports of certain multi-phase AC motors from Japan. U.S. exports were \$1.5 billion in 1997 and the largest markets for these products were Canada and Mexico which accounted for 43 percent and 17 percent of the total, respectively, followed by the United Kingdom, Japan, and Germany.²¹⁴ The EU tariff rates on U.S. exports from this product group range between free and 4.7 percent. The most significant tariff barriers reported by U.S. motor producers are in India and Korea while the most significant nontariff barriers are the standards set by the EU and Japan and the lack of intellectual property protection in Korea.²¹⁵ Import tariffs on fractional horsepower motors in India, which is a major market for these products, are 37.9 percent, while Korea's tariff is 13 percent.

The lack of intellectual property protection is a major obstacle to U.S. motor producers selling in the Korean and Taiwan markets. Industry representatives claim that there have been numerous examples of patented U.S. products being purchased, reverse engineered, and sold under another brand name without permission or royalty payments.²¹⁶ Consumer preferences to buy domestic also reportedly present a significant barrier to U.S. motor exports to the EU. As a general rule, EU customers tend to purchase from suppliers within their own country unless a product is not available or there is a large price difference between the domestic and imported products.

²¹⁰ Mexico is not an ITA signatory.

²¹¹ China is not an ITA signatory.

²¹² Joseph Tasker, The Coalition for an Information Technology Agreement, written submission to USITC on inv. 332-390, Mar. 24, 1998.

²¹³ Industry representatives, telephone interviews by and faxes to USITC staff, Mar. 11-23, 1998.

²¹⁴ All trade data are based on official statistics of the U.S. Department of Commerce (USDOC).

²¹⁵ Industry representatives, telephone interviews by and faxes to USITC staff, Mar. 11-23, 1998.

²¹⁶ Ibid.

If the motors included in this chapter were included in the ITA, some U.S. producers would likely experience improved access to the Korean, Indian, and EU markets. However, local and regional producers of motors in these and other Asian markets would still maintain a significant advantage over their U.S. competitors because of lower shipping costs, shorter lead times, and longstanding customer relationships.²¹⁷ Japan and the EU would likely increase their shares of the U.S. market at the expense of U.S. producers if tariffs on these products were eliminated under the ITA.

Interchangeable parts for cutting and drilling

U.S. imports of interchangeable cutting and drilling parts totaled \$696 million in 1997. Japan was the largest import source for these products, accounting for 38 percent of the total import value, followed by Germany, Canada, and the United Kingdom. Current U.S. tariff rates for these products ranged from free for certain knives and cutting blades for metal to 8.4 percent for drilling tools. U.S. exports of the interchangeable parts for cutting and drilling included in this chapter were \$386 million in 1997, and the major markets for these products were Canada, Mexico, and the United Kingdom. U.S. industry representatives report that the greatest tariff barriers to trade for drill bits and other cutting tools are imposed by Korea and India.²¹⁸ The EU tariffs for U.S. exports of these products ranges between 1.7 percent and 2.7 percent, while both Korea and India impose 30-percent tariffs. The high value-added tax (VAT) imposed in the Philippines represents another significant trade barrier affecting drill bit imports and other cutting tools. In addition, the proposed EU requirement that all tools sold in the EU be metric sizes after 2000 would create a major barrier to these and many other products. This requirement would force U.S. tool producers selling in the EU market to produce two separate product lines at much greater expense.

The inclusion of these products in the ITA would likely create increased market opportunities for U.S. manufacturers in the EU, India, the Philippines, and other Southeast Asian markets because of the high tariffs currently in place and the price sensitivity of these products. This increase would likely be mitigated somewhat in the Philippines by the VAT and other non-tariff barriers. It would also benefit the other major producers such as Japan, Germany, and Sweden in U.S. and Asian markets.

Machine tools

U.S. imports of machine tools totaled \$1.9 billion in 1997 of which Japan accounted for nearly one-half. The next largest sources of U.S. imports were Germany, Taiwan, and Canada. Current U.S. tariff rates for these products ranged from 2 percent to 4.7 percent. Outstanding antidumping duty orders are currently in place on imports of certain machine tool parts in this group from Japan. Industry representatives report that if these products are included in the ITA, U.S. exports of many types of metalworking machinery to the EU will increase. It is also likely that Japan, Germany, and Taiwan will increase their shares of the U.S. market if U.S. tariffs on these products were eliminated.

U.S. exports of machine tools were \$800 million in 1997. The principal markets for these exports were Canada, Mexico, the United Kingdom, Germany, and Japan. The EU tariffs on imports of these products range from 1.2 percent for certain machine tool parts to 2.7 percent on tools such as hydraulic presses and threading and tapping tools. There are no tariffs on imports of U.S.-produced machine tools entering Canada or Japan.

²¹⁷ Industry representative, telephone interview by USITC staff, Apr. 2, 1998.

²¹⁸ Industry representatives, telephone interviews by and faxes to USITC staff, Feb.-Mar. 1998.

Industry representatives report a number of nontariff barriers affecting machine tools. For example, Canada restricts the entry of service personnel used to repair machine tools such as flat surface grinding machines, sawing, and cutting off machines, forcing U.S. manufacturers to hire and train Canadian service personnel.²¹⁹ The CE mark required in the EU reportedly increases product costs and is not evenly enforced so that many foreign producers attach the mark whether or not they meet the requirements.²²⁰ Korea often requires detailed drawings of machines which force the transfer of U.S. technology. One industry producer of machine tools reported that U.S. firms have more trouble securing export financing than their foreign competitors because the U.S. Export-Import (Ex-Im) Bank does not finance orders under \$1 million dollars.²²¹

Power generation, transmission, and regulation equipment

U.S. imports of the power generation, transmission, and regulation equipment included in this chapter were \$11.4 billion in 1997. Mexico was the source of nearly one-half of the total while Japan, Canada, and China accounted for 13 percent, 7 percent, and 5 percent of the total, respectively. Wiring harness sets alone comprised \$4.3 billion of the total imports in this group. Current U.S. tariff rates for these products ranged from free to 5 percent. Outstanding antidumping duty orders are currently in place on imports of certain power supplies and speed drive controllers for electric motors from Italy, France, Germany, Taiwan, and Korea.

U.S. exports of these products were \$10 billion during 1997, of which the largest segments were ignition wiring sets and parts of electric components. A small share of these products are used in industrial process controls which are discussed below. The principal export markets for this equipment were Mexico and Canada, which accounted for 42 percent and 19 percent, respectively. Other major markets include the United Kingdom, Japan, and Germany. Exports of ignition wiring sets to Mexico alone were \$747 million. The EU tariff rates for these products ranged from free for nickel-iron storage batteries and certain transformers to 3.7 percent for ignition wiring sets and insulated winding wire. Japan imposes a 4.8-percent duty on imports of insulated winding wire and ignition wiring sets but all other products in this group enter duty-free.

Some U.S. producers of industrial process controls anticipate increased foreign market opportunities as a result of the inclusion of these products in the ITA.²²² It is likely that U.S. exports to Japan of winding wire and ignition wiring sets would increase if their 4.8-percent duty were eliminated. U.S. imports of power generation, transmission, and regulation equipment from the EU, Japan, China, and Taiwan would also likely increase at the expense of Mexican suppliers who currently face no U.S. tariffs on these products.

Fans and compressors

U.S. imports of the fans and compressors included in this chapter were \$3.2 billion in 1997. The largest source of these imports was Japan, followed by China, Taiwan, and Mexico. Current U.S. tariff rates for these products ranged from free to 4.7 percent.

U.S. exports of fans and compressors were valued at \$3.4 billion in 1997. The principal markets for these products are Canada, Mexico, Korea, and the United Kingdom. EU tariffs on these products range from

²¹⁹ Machine tool industry representative, telephone interview by USITC staff, Mar. 18, 1998.

²²⁰ Ibid.

²²¹ Machine tool industry representative, telephone interview by USITC staff, Feb. 26, 1998.

²²² Industry representative, fax to USITC staff, Mar. 1998.

free for vacuum pumps to 3.2 percent for fans while Korea imposes a tariff of 13 percent on all of the items in this group. Industry representatives identified Thailand and Indonesia as having high tariffs on hoods.

The elimination of tariffs under the ITA would probably create market opportunities for U.S., EU, and Japanese producers in the Korean market and, to a limited extent, for U.S. and Japanese producers in the EU market. Including these products in the ITA will likely have only a limited effect on market opportunities in the United States because many of these products will be duty-free in 1999 under the Uruguay Round commitments.

Industrial process controls

U.S. imports of the selected industrial process controls were \$1.6 billion in 1997. Mexico, Canada, the United Kingdom, Japan, and Germany were the principal import sources. Current U.S. tariff rates for these products ranged from free to 1.7 percent. Industry representatives stated that increased market opportunities are likely to arise in the EU and Asia for U.S. valve and actuator products as a result of tariff elimination under the ITA.²²³ It is also likely that market opportunities will increase for industrial process controls as a whole in Central Europe. The U.S. market for industrial process controls is likely to be relatively unaffected by their inclusion in the ITA because current U.S. tariff rates are already very low.

U.S. exports of the selected industrial process controls were \$1.8 billion in 1997. The principal markets for these exports were Canada, Mexico, Germany, and Japan. EU tariffs on these products range from free for certain hydraulic regulating instruments to 2.8 percent for automatic regulating and controlling instruments. According to NEMA and other industry representatives, tariffs on industrial control/process sector products range from zero to 40 percent in ITA markets. Industry representatives report that tariff barriers affecting programmable logic controllers are greatest in India, the Czech Republic, Slovakia, and Thailand.²²⁴

Industry representatives assert that the lack of intellectual property protection is a trade barrier for industrial process controls in Taiwan, Hong Kong, India, and Japan.²²⁵ Trade in these controls allegedly is restricted by the lack of patent and software protection which affect these products because software applications are typically embodied within the control systems. Industry representatives report that these products have been subject to reverse engineering through which purchasers replicate the software within the product and market the imported systems as their own.²²⁶

Inconsistent trade classification in some Central European countries and product and shipment verification in the Philippines are reported to result in additional cost and delays to trade in the industrial control/process sector.²²⁷ In addition, Indonesia and the Philippines prohibit the use of local staff where there is no company presence, thereby requiring companies to establish subsidiaries within these countries rather than simply using local sales representatives.²²⁸ Industry representatives also reported nontariff barriers in the EU, including requirements for minimum local content, labeling, and metric sizes as well as a VAT of 20 percent.²²⁹

²²³ Industry representatives, telephone interview by USITC staff, Mar. 1998.

²²⁴ Industry representative, fax to USITC staff, Mar. 1998.

²²⁵ Industry representative, e-mail correspondence to USITC staff, Apr. 3, 1998.

²²⁶ Ibid.

²²⁷ Industry association representative, fax to USITC staff, Mar. 26, 1998.

²²⁸ Ibid.

²²⁹ Industry representative, fax to USITC staff, Mar. 1998.

Miscellaneous products

U.S. imports of the remainder of the products covered in this chapter were \$5.4 billion in 1997 and the principal import sources were Japan, Canada, Mexico, China, and Germany. The U.S. import tariffs on products within this group range from free for articles such as gummed or adhesive paper to 8.5 percent for threaded screws and bolts.

U.S. exports of these products were \$4.3 billion in 1997. The major export markets for this group were Canada, Mexico, Japan, the United Kingdom, and Germany. Tariffs on U.S. exports of these products to Japan and Canada are free. EU tariffs for products within this group range from free for gaskets, washers, and other seals to 6.5 percent for certain articles of plastic. The most significant trade barriers imposed on imports of U.S.-produced welding equipment are in India and Latin America.²³⁰ U.S. solenoid valve industry representatives report that the 25-percent tariffs imposed by India and Indonesia represent the greatest tariff barriers to their products, followed by tariffs in China, Mexico, and Korea.²³¹

Local content requirements create significant trade barriers for U.S. manufacturers of high- technology welding equipment in Japan, Korea, and Latin America because they force U.S. companies to establish local production facilities within the market. Labeling requirements and standards are the most restrictive obstacles to trade in the EU for this equipment. The unpredictability of currency fluctuations in Central Europe, Russia, and other developing countries are also reported to present impediments to trade.²³²

Certain producers of welding equipment report that tariff reduction should result in increased market share in the EU. Barriers to increased market share in Japan are primarily nontariff barriers such as the lack of intellectual property protection for high-technology welding, so the ITA is likely to have little effect on this market. The elimination of the 8.5-percent U.S. tariff on threaded screws and bolts would probably result in greater market opportunities in the United States for Japan and Taiwan and a loss of market share for the U.S. industry.²³³

²³⁰ Welding equipment industry representative, fax to USITC staff, Mar. 30, 1998.

²³¹ Industry representative, telephone interview by USITC staff, Mar. 30, 1998.

²³² Ibid.

²³³ Industry representatives, telephone interviews by USITC staff, Mar. 1998.

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3402.90.10 Synthetic detergents not put up for retail sale	Cleaning electronic components Photomasking	General cleaning applications	<1	U.S. Japan Germany	Japan Brazil Singapore	Germany Canada Russia	• Current U.S. tariff is 3.8 percent	16
3402.90.30 Surface active or washing preparations with aromatic or modified aromatic surface active agent, other than synthetic detergent, not put up for retail sale	Cleaning electronic components Photomasking	General cleaning applications	<1	U.S. Japan Germany	Belgium Australia France	Mexico Germany Switz.	• Current U.S. tariff is 4.7 percent	16
3402.90.50 Surface active or washing preparations with no aromatic or modified aromatic surface active agent, other than synthetic detergent, not put up for retail sale	Cleaning electronic components Photomasking	General cleaning applications	<1	U.S. Japan Germany	Canada Mexico Japan	Canada Mexico Ireland	• Current U.S. tariff rate is free for products classified both here and listed on the Intermediate Chemicals for Dyes appendix and is 3.7 percent for all other products	16
3501.90.20 Casein glues	Manufacture of capacitors, resistors, other electrical components	Books Furniture Fabrics	<5	U.S. Australia Argentina	HK UK Honduras	UK Italy	• Some U.S. producers anticipate increased foreign market opportunities	17
3923.30.0090(pt.) Polyvinyl chloride bottles for the conveyance or packing of goods of a capacity exceeding 50 ml	No uses specific to IT identified	Containers	<1	U.S. Taiwan Japan	Canada Mexico Brazil	Canada China Japan	• Some U.S. producers anticipate adverse impact • Some U.S. producers anticipate minimal impact	48

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
3926.90.9880(pt.) Other articles of plastics and articles of other materials of headings 3901 to 3914 not elsewhere specified or included	No uses specific to IT identified	Miscellaneous products	<1	U.S. China Canada	Mexico Canada UK	China Canada Mexico	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate minimal impact 	46, 49, 52
4016.93.50 Gaskets, washers and other seals, other than of a kind used in the automotive goods of chapter 87, of vulcanized rubber other than hard rubber	No uses specific to IT identified	Machinery Appliances	<1	U.S. Japan EU	Canada Mexico Japan	Japan Taiwan Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	53
4016.99.15 Caps, lids, seals, stoppers and other closures of vulcanized rubber other than hard rubber	No uses specific to IT identified	Containers	<1	Japan Taiwan Germany	Canada Mexico Japan	Japan Taiwan Germany	<ul style="list-style-type: none"> Some U.S. trade associations anticipate minimal impact 	54
4823.11.00 Pressure-sensitive gummed or adhesive paper, in strips or rolls	Packing media for capacitors, integrated circuits, transistors and diodes Disposable medical supplies	Packaging and labeling of products	<5	Japan U.S. Germany	Canada Mexico Belgium	Canada UK Mexico	<ul style="list-style-type: none"> Current U.S. tariff is 3.5 percent and is subject to 10-year Uruguay Round staging 	70

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
4823.19.00 Gummed or adhesive paper, in strips or rolls, not pressure-sensitive	Packing media for capacitors, integrated circuits, transistors and diodes Disposable medical supplies	Packaging and labeling of products	<5	Japan U.S. Germany	Mexico Canada Japan	Germany Taiwan Japan	<ul style="list-style-type: none"> Current U.S. tariff is 1.8 percent and is subject to 10-year Uruguay Round staging Some U.S. producers anticipate minimal impact 	71
4823.90.65 Other articles of coated paper or paperboard other than gaskets, washers, and other seals, not elsewhere specified or included	No uses specific to IT identified	Packaging of products	<1	U.S. EU Canada	Canada Mexico Japan	Canada China Germany	<ul style="list-style-type: none"> Current U.S. tariff is 3.4 percent and is subject to 10-year Uruguay Round staging Appears to be little or no U.S. production 	72, 73, 74
4823.90.85 Other articles of uncoated paper or paperboard other than gaskets, washers, and other seals, not elsewhere specified or included	No uses specific to IT identified	Packaging of products	<1	U.S. EU Canada	Canada Mexico Kuwait	Canada Finland Germany	<ul style="list-style-type: none"> Current U.S. tariff is 3.2 percent and is subject to 10-year Uruguay Round staging Appears to be little or no U.S. production 	72, 73, 74
7318.15.2010 Bolts of iron or steel with or without nuts or washers entered or exported in the same shipment, having shanks or threads with a diameter of less than 6 mm	Manufacture of capacitors and resistors	Motor vehicles Industrial machinery Farm equipment	<5	U.S. Taiwan Japan	Canada Mexico UK	Japan Taiwan UK	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 Industrial Fasteners Institute opposes inclusion in ITA-II 	89

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
7318.15.6030 Screws of stainless steel having shanks or threads with a diameter of less than 6 mm, other than coach, wood, self-tapping screws, machine screws 9.5 mm or more in length and 3.2 mm or more in diameter	Computers Electronic products Medical equipment	Appliances Watches and clocks	<5	China Japan Taiwan	Mexico Canada UK	Taiwan Japan Switz.	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Current U.S. tariff is 6.2 percent and was not reduced as a result of Uruguay Round negotiations Industrial Fasteners Institute opposes inclusion in ITA-II 	89
7616.10.7030(pt.) Screws of aluminum having shanks or threads over 6 mm in diameter	Manufacture of capacitors, computers	Motor vehicles Aircraft Construction Marine applications	<1	Taiwan China U.S.	Canada Japan Mexico	Japan Taiwan South Africa	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Industrial Fasteners Institute opposes inclusion in ITA-II 	96
8207.30.30 Interchangeable tools for pressing, stamping or punching, suitable for cutting metal, and parts thereof	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other metal goods	<1	Japan Germany U.S.	Mexico Canada Germany	Japan Canada Germany	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Current U.S. tariff is 6 percent The United States Cutting Tool Institute opposes inclusion in ITA-II 	433
8207.40.30 Interchangeable tools for tapping or threading, and parts thereof, with cutting part containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or over 0.1 percent of vanadium	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other metal goods	<1	Sweden Japan U.S.	Canada Belgium Mexico	Japan Sweden Israel	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Current U.S. tariff is 6 percent The United States Cutting Tool Institute opposes inclusion in ITA-II 	433

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8207.40.60 Interchangeable tools for tapping or threading, and parts thereof, with cutting part not containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or over 0.1 percent of vanadium	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Canada Belgium Mexico	Germany Japan Canada	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Current U.S. tariff is 5 percent The United States Cutting Tool Institute opposes inclusion in ITA-II 	433
8207.50.20 Interchangeable tools for handtools for drilling (other than for rock drilling) and parts thereof, with cutting part containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or over 0.1 percent of vanadium	No uses specific to IT identified	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Liechtenstei n Switz.	Germany Japan China	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Current U.S. tariff is 5.4 percent The United States Cutting Tool Institute opposes inclusion in ITA-II 	104
8207.50.2055 Twist drills (other than brad point), with cutting part containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or over 0.1 percent of vanadium	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Mexico UK Singapore	Germany Japan Mexico	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Current U.S. tariff is 5.4 percent The United States Cutting Tool Institute opposes inclusion in ITA-II 	433

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8207.50.2080 Interchangeable tools for drilling, (other than twist drills, woodworking drills, masonry drills, or for rock drilling), and parts thereof, with cutting part containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or over 0.1 percent of vanadium	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Taiwan UK Japan	Sweden Germany Japan	<ul style="list-style-type: none"> • U.S. producers anticipate adverse impact • Current U.S. tariff is 5.4 percent • The United States Cutting Tool Institute opposes inclusion in ITA-II 	433
8207.50.40 Interchangeable tools for drilling suitable for cutting metal, and parts thereof, with cutting part not containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or not over 0.1 percent of vanadium	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Canada Japan Taiwan	China Japan Germany	<ul style="list-style-type: none"> • U.S. producers anticipate adverse impact • Current U.S. tariff is 8.4 percent • The United States Cutting Tool Institute opposes inclusion in ITA-II 	104, 433
8207.50.4030(pt.) Twist drills, of metal carbide, suitable for cutting metal	Parts of machines for manufacture of printed circuits, other electronic equipment	Nonferrous metal products Steel products	<1	Germany Japan U.S.	Canada Japan Taiwan	China Japan Germany	<ul style="list-style-type: none"> • Some U.S. producers anticipate adverse impact • Some U.S. producers anticipate increased foreign market opportunities • Current U.S. tariff is 5.4 percent • The United States Cutting Tool Institute opposes inclusion in ITA-II 	117

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8207.50.60(pt.) Interchangeable tools for hand tools, for drilling, having carbide tips and a diameter of 0.98 mm or more but not more than 7.5 mm, not suitable for cutting metal	No uses specific to IT identified	Parts of machines to drill wood products	<1	Germany China U.S.	Colombia Taiwan Saudi Arabia	Germany Brazil China	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Current U.S. tariff is 5.4 percent The United States Cutting Tool Institute opposes inclusion in ITA-II 	104
8207.60.00 Interchangeable tools for boring or broaching, and parts thereof	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Canada Mexico Germany	Canada Germany Brazil	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities The United States Cutting Tool Institute opposes inclusion in ITA-II 	433
8207.70.60 Interchangeable tools for milling and parts thereof, with cutting part not containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or over 0.1 percent of vanadium	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Canada Mexico UK	Israel Germany Japan	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities The United States Cutting Tool Institute opposes inclusion in ITA-II 	433
8207.90.30 Other interchangeable cutting tools, with cutting part containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or over 0.1 percent of vanadium	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Canada UK Germany	Italy Japan Taiwan	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities The United States Cutting Tool Institute opposes inclusion in ITA-II 	433

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8207.90.45 Other interchangeable cutting tools suitable for cutting metal, and parts thereof, with cutting part not containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or over 0.1 percent of vanadium	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Canada UK Germany	Israel Japan Switz.	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities The United States Cutting Tool Institute opposes inclusion in ITA-II 	433
8207.90.60 Other interchangeable cutting tools for handtools not suitable for cutting metal, and parts thereof, with cutting part not containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or over 0.1 percent of vanadium	No uses specific to IT identified	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Canada UK Germany	Taiwan Germany Israel	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities The United States Cutting Tool Institute opposes inclusion in ITA-II 	433
8207.90.75 Other interchangeable cutting tools for machine tools, not suitable for cutting metal, and parts thereof, with cutting part not containing by weight over 0.2 percent of chromium, molybdenum, or tungsten, or over 0.1 percent of vanadium	Parts of machines for manufacture of telecommunication s equipment, consumer electronics, scientific equipment	Parts of machines for manufacture of motor vehicles, aircraft, other goods	<1	Sweden Japan U.S.	Canada UK Germany	Germany Japan Taiwan	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities The United States Cutting Tool Institute opposes inclusion in ITA-II 	433

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8207.90.7530(pt.) Router bits, of carbide	Parts of machines for manufacture of printed circuits, other electronic equipment	Wood products Nonferrous metal products	<1	Germany Japan U.S.	Canada UK Germany	Canada Israel Taiwan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities The United States Cutting Tool Institute opposes inclusion in ITA-II 	118
8208.10.00 Knives and cutting blades for metal working, for machines or for mechanical appliances, and base metal parts thereof	Parts of wire and sheet metal cutting machinery used to cut and form electronic and computer products	Parts of machinery used in the metals processing industry	<1	U.S. Germany UK	Canada Mexico Korea	UK Germany Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities U.S. producers anticipate minimal impact U.S. tariff will be free in 1999 	102, 106, 433
8208.90.60 Knives and cutting blades for machines or for mechanical appliances, other than for agricultural, horticultural, forestry, kitchen appliances, food processing, woodworking, metal working, or shoe machinery, and base metal parts	Parts of machinery to cut plastic forms for electronic, computer, and telecommunication s equipment	Parts of machinery for cutting textiles and plastics	<1	U.S. Germany UK	Canada Mexico Germany	Germany Japan UK	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 U.S. producers anticipate minimal impact 	106
8303.00.00(pt.) Bill (bank note) acceptors for safe deposit boxes and the like	No uses specific to IT identified	Safe deposit boxes Vending machines	0	U.S. Japan	Canada China Mexico	Canada Mexico Korea	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities 	116

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8414.10.00 Vacuum pumps	Semiconductor production Computer and telecommunication s equipment production	Pharmaceuticals Motor vehicles Aircraft	<1	Germany U.S.	Canada Japan UK	Japan Germany UK	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	400, 401
8414.20.00 Hand- or foot-operated air pumps	No uses specific to IT identified	Bicycle pumps Compressor pumps Medical pumps	0	EU U.S. Japan	Japan Mexico Neth.	Taiwan China France	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	400
8414.30.40 Compressors of a kind used in refrigerating equipment, including air conditioning, not exceeding 1/4 horsepower	No uses specific to IT identified	Refrigeration display cases Automotive refrigeration Home and commercial refrigeration	0	U.S. Japan EU	Saudi Arabia Canada Mexico	Brazil Italy Singapore	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	400
8414.30.80 Compressors of a kind used in refrigerating equipment, including air conditioning, exceeding 1/4 horsepower	No uses specific to IT identified	Commercial refrigeration and air conditioning Refrigeration display cases	0	Japan U.S. EU	Canada Korea HK	Japan Korea Mexico	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	400
8414.40.00 Air compressors mounted on a wheeled chassis for towing	No uses specific to IT identified	Highway construction Oil production Mining	0	U.S. EU Japan	Canada Korea Mexico	Belgium Japan UK	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	400

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8414.51.00 Table, floor, wall, window, ceiling or roof fans, with a self-contained electric motor of an output not exceeding 125 W	No uses specific to IT identified	Residential and commercial ventilation	0	Japan U.S. Korea	Mexico Canada Venezuela	China Taiwan Thailand	<ul style="list-style-type: none"> One major U.S. producer opposes tariff elimination One U.S. producer anticipates adverse impact There are only 2 U.S. producers 	400
8414.59.30 Turbocharger and supercharger fans	Manufacture of semiconductors	Motor vehicle and aircraft	<1	U.S. EU Mexico	Mexico Neth. Germany	Japan Canada UK	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	400
8414.59.60 Other fans including those suitable for use with motor vehicles, centrifugal, and axial, not elsewhere specified or included	Manufacture of capacitors	Motor vehicle and aircraft production Water, waste-water treatment	<1	Japan U.S.	Canada Mexico Japan	Canada Japan China	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	400
8414.60.00 Ventilating or recycling hoods having a maximum horizontal side not exceeding 120 cm	No uses specific to IT identified	Food processing Pharmaceuticals Petroleum	<1	U.S. EU Japan	Canada Mexico Korea	Italy Canada Taiwan	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	400
8414.80.05 Turbocharger and supercharger air compressors	No uses specific to IT identified	Infrastructure applications Petrochemical Plastic production	0	U.S. EU Mexico	Mexico UK Germany	Mexico Switz. UK	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	400
8414.80.15 Other stationary and portable air compressors	No uses specific to IT identified	Highway construction Electrical utilities Mining	<1	U.S. EU Japan	Canada Mexico China	Mexico Germany Belgium	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	400

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8414.80.20 Compressors other than air compressors or compressors of a kind used with refrigeration equipment	No uses specific to IT identified	Manufacture of chemicals, petroleum Food processing	<1	U.S. EU Japan	Canada India Argentina	UK Germany Italy	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities Antidumping duty order in place on certain imports from Japan (A-588-840) 	400
8414.80.90 Other pumps, compressors, fans, and ventilating or recycling hoods not elsewhere specified or included	No uses specific to IT identified	Manufacture of plastics Organic chemicals Methanol	<1	EU U.S. Japan	Mexico Korea Taiwan	Japan Germany Taiwan	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	400
8414.90.10 Parts of fans (including blowers) and ventilating or recycling hoods	No uses specific to IT identified	Fans and ventilation equipment	<1	U.S. Japan EU	Canada Mexico Ireland	Canada Taiwan Germany	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities 	400
8414.90.30 Stators and rotors for compressors of a kind used in refrigerating equipment (including air conditioning)	No uses specific to IT identified	Compressors Household appliances	<1	U.S. Japan EU	Canada Mexico UK	Mexico UK Italy	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	400
8414.90.40 Parts of compressors other than stators and rotors	No uses specific to IT identified	Compressors Household appliances	<1	U.S. Japan EU	Mexico Korea UK	Japan UK Mexico	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 Antidumping duty order in place on certain imports from Japan (A-588-840) 	400

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8414.90.90 Parts of air or vacuum pumps	No uses specific to IT identified	Air or vacuum pumps	<1	EU U.S.	Mexico Korea UK	UK Germany Japan	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	400
8424.90.8085(pt.) Other parts of mechanical appliances for projecting, dispensing or spraying liquids or powders, other than for fire extinguishers, other than of simple piston pump sprays and powder bellows, other than of sand blasting machines, other than of spraying appliances of 8424.89 for etching, developing, etc. for semiconductor wafers and flat panel displays, other than of steam and similar jet projecting machines	No uses specific to IT identified	Coating or cleaning goods or machinery	<1	U.S. EU Taiwan	Canada Neth. Japan	Italy Germany Canada	<ul style="list-style-type: none"> U.S. tariff will be free in 1999 	418
8457.10.00 Machining centers	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan U.S. Germany	Canada UK Switz.	Japan Germany Taiwan	<ul style="list-style-type: none"> Association for Manufacturing Technology opposes inclusion in ITA-II Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities From 1987-1993 the United States maintained voluntary restraint agreements with Japan and Taiwan that limited imports 	431

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8458.19.00 Horizontal lathes for removing metal, not numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan U.S. Germany	Mexico Canada Germany	Taiwan China Germany	<ul style="list-style-type: none"> • Association for Manufacturing Technology opposes inclusion in ITA-II • Some U.S. producers anticipate adverse impact • Some U.S. producers anticipate increased foreign market opportunities • Some U.S. producers anticipate minimal impact • From 1987-1991 the United States maintained voluntary restraint agreements with Japan and Taiwan that limited imports 	432
8459.59.00 Milling machines for removing metal, knee type, not numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Taiwan U.S. Japan	HK Canada China	Taiwan Spain Germany	<ul style="list-style-type: none"> • Association for Manufacturing Technology opposes inclusion in ITA-II • Some U.S. producers anticipate adverse impact • Some U.S. producers anticipate increased foreign market opportunities • Some U.S. producers anticipate minimal impact • From 1987-1991 the United States maintained voluntary restraint agreements with Japan and Taiwan that limited imports 	434

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Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8459.70.40 Numerically controlled threading or tapping machines, for removing metal	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan U.S. Germany	Canada Sweden China	Japan Canada Korea	<ul style="list-style-type: none"> Association for Manufacturing Technology opposes inclusion in ITA-II U.S. producers anticipate adverse impact 	436
8459.70.80 Threading or tapping machines, not numerically controlled, for removing metal	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan U.S. Germany	Canada Chile Mexico	Germany Ireland Japan	<ul style="list-style-type: none"> Association for Manufacturing Technology opposes inclusion in ITA-II U.S. producers anticipate adverse impact 	436
8460.19.00 Flat-surface grinding machines for finishing metal, positionable in any one axis to at least .01 mm, not numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan U.S. Germany	Canada Singapore Japan	Taiwan Japan Singapore	<ul style="list-style-type: none"> Association for Manufacturing Technology opposes inclusion in ITA-II Some U.S. producers anticipate adverse impact Some U.S. producers anticipate minimal impact 	437
8460.39.00 Sharpening (tool or cutter grinding) machines for finishing metal, not numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan U.S. Germany	Canada Germany Japan	Germany Czech Rep. UK	<ul style="list-style-type: none"> Association for Manufacturing Technology opposes inclusion in ITA-II Some U.S. producers anticipate adverse impact Some U.S. producers anticipate minimal impact 	137

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8460.90.40(pt.) Other grinding machines for finishing metal, numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan U.S. Germany	Canada Mexico Taiwan	Italy Japan Switz.	<ul style="list-style-type: none"> • Association for Manufacturing Technology opposes inclusion in ITA-II • Some U.S. producers anticipate adverse impact • Some U.S. producers anticipate minimal impact 	438, 439
8460.90.80(pt.) Other grinding machines for finishing metal, not numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan U.S. Germany	UK Mexico Germany	China Germany Japan	<ul style="list-style-type: none"> • Association for Manufacturing Technology opposes inclusion in ITA-II • Some U.S. producers anticipate adverse impact • Some U.S. producers anticipate minimal impact 	438, 439
8461.50.40 Sawing or cutting-off machines for removing metal or cermets, numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan U.S. Germany	Canada Mexico Saudi Arabia	Japan Germany Switz.	<ul style="list-style-type: none"> • Association for Manufacturing Technology opposes inclusion in ITA-II • Some U.S. producers anticipate adverse impact • Some U.S. producers anticipate minimal impact 	440
8461.50.80 Sawing or cutting-off machines for removing metal or cermets, not numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan U.S. Germany	Canada Mexico Japan	Taiwan Germany Canada	<ul style="list-style-type: none"> • Association for Manufacturing Technology opposes inclusion in ITA-II • Some U.S. producers anticipate adverse impact • Some U.S. producers anticipate minimal impact 	440

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8462.10.00 Forging or die-stamping machines (including presses) and hammers	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan Germany U.S.	Mexico Canada Japan	Japan Switz. Italy	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan (A-588-810) Association for Manufacturing Technology opposes inclusion in ITA-II U.S. trade association anticipates adverse impact 	441
8462.29.80 Other machines for bending, folding, straightening, or flattening, not numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Taiwan U.S. Japan	Canada Mexico UK	Canada Japan Italy	<ul style="list-style-type: none"> Association for Manufacturing Technology opposes inclusion in ITA-II U.S. producers anticipate adverse impact 	443
8462.91.40 Hydraulic presses for working metal, other than by forging, die-stamping, bending, folding, straightening, flattening, shearing, punching or notching, numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off- highway vehicles	<1	Japan Germany U.S.	Canada Mexico UK	Japan Germany Canada	<ul style="list-style-type: none"> Association for Manufacturing Technology opposes inclusion in ITA-II U.S. producers anticipate adverse impact 	444

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8462.91.80 Hydraulic presses for working metal, other than by forging, die-stamping, bending, folding, straightening, flattening, shearing, punching or notching, not numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off-highway vehicles	<1	Japan U.S. Germany	Mexico Canada France	Germany Canada Sweden	<ul style="list-style-type: none"> Association for Manufacturing Technology opposes inclusion in ITA-II U.S. producers anticipate adverse impact 	444
8462.99.40 Machine tools for working metal other than by forging, hammering, or die-stamping, bending, folding, straightening, flattening, shearing, punching or notching other than hydraulic presses, numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off-highway vehicles	<1	Japan U.S. Germany	Japan Switz. UK	Japan Canada Germany	<ul style="list-style-type: none"> Association for Manufacturing Technology opposes inclusion in ITA-II U.S. producers anticipate adverse impact 	445
8462.99.80 Machine tools for working metal other than by forging, hammering, or die-stamping, bending, folding, straightening, or flattening, shearing, punching or notching other than hydraulic presses, not numerically controlled	No uses specific to IT identified	Machinery that produces metal components for products such as motor vehicles, aircraft, and off-highway vehicles automobiles	<1	Japan U.S. Germany	Mexico Canada Japan	Japan Germany Canada	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan (A-588-810) Association for Manufacturing Technology opposes inclusion in ITA-II U.S. producers anticipate adverse import 	445

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8464.90.90 Machines for working stone, ceramics, concrete, etc., other than sawing, grinding, or polishing machines, other than for scribing, scoring, or wet-etching semiconductor wafers, other than for wet-developing or -stripping semiconductor wafers, other than for wet-etching, - developing, or -stripping flat panel displays	Manufacture of printed circuits and plastic credit or ATM cards	Used in the production of composites used in sporting goods	<1	Germany U.S. Canada	Mexico Canada Japan	Germany Italy Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact 	445
8466.94.65 Bed, base, table, head, tail, saddle, etc., for use with the machines of heading 8462 or 8463 but not of subheadings 8462.21.40 or 8462.29.40, not of cast iron, semi-finished	No uses specific to IT identified	Production of various products	<1	Japan U.S. Germany	Canada UK Japan	Japan Germany Brazil	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact U.S. trade association opposes inclusion in ITA-II and anticipates adverse impact Outstanding antidumping duty order in place on certain imports from Japan (A-588-810) 	456
8466.94.85 Parts and accessories of machines of heading 8462 or 8463 other than of subheading 8462.21.40 or 8462.29.40 other than bed, base, table, head, tail, saddle, etc., not of cast iron, semi-finished	No uses specific to IT identified	Production of various products	<1	Japan U.S. Germany	Canada UK Japan	Germany Japan Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate adverse impact Outstanding antidumping duty order in place on certain imports from Japan (A-588-810) 	456

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8480.20.00 Mold bases	Manufacture of computer housings, printed circuits	Manufacture of dixie cups, toys, furniture	<1	U.S. Taiwan HK	Mexico Germany Belgium	Canada China Japan	<ul style="list-style-type: none"> Some members of The Society of the Plastics Industry anticipate adverse impact Some U.S. producers anticipate minimal impact Some U.S. producers anticipate adverse impact 	470
8480.41.00 Injection or compression molds for metal or metal carbides	No uses specific to IT identified	Manufacture of machinery parts Food containers Motor vehicles	<1	Japan EU U.S.	Mexico Canada Japan	Japan Canada Italy		471
8481.80.90 Taps, cocks, valves, etc., not hand operated and not pressure-reducing, check, safety, or relief valves, or for oleohydraulic or pneumatic transmissions	No uses specific to IT identified	Regulate temperatures and pressures and flows of gases, fluids, in the production of chemicals, electrical power generation, and petroleum refining Waste water treatment	<1	U.S. EU	Canada Mexico Korea	Mexico Japan Germany	<ul style="list-style-type: none"> U.S. producer supports tariff elimination if other nations also reduce tariffs 	472
8481.80.9005 Solenoid valves	No uses specific to IT identified	Used to control use of fluids and gases in production of chemical and petroleum products Waste water treatment	<1	U.S. Germany Mexico	Canada Mexico Korea	Mexico Japan Germany	<ul style="list-style-type: none"> U.S. producers anticipate increased foreign market opportunities U.S. producers anticipate minimal impact 	473

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Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8481.80.9035 Control valves with pneumatic actuators designed for proportional operation by a signal from a control device	No uses specific to IT identified	Petrochemical industry Power generation Chemical industry	<1	U.S. EU Japan	Canada Mexico Korea	Mexico Japan Germany	<ul style="list-style-type: none"> Some U.S. producers and trade associations anticipate increased foreign market opportunities U.S. producers anticipate minimal impact 	474
8481.80.9040 Taps, cocks, valves, and other similar appliances with pneumatic actuators, other than control valves designed for proportional operation by a signal from a control device	No uses specific to IT identified	Chemical industry Petrochemical industry Power generation	<1	U.S. EU Japan	Canada Mexico Korea	Mexico Japan Germany	<ul style="list-style-type: none"> Some U.S. producers and trade associations anticipate increased foreign market opportunities U.S. producers anticipate minimal impact 	474
8483.90.1050(pt.) Chain sprockets and parts thereof; other than forged	No uses specific to IT identified	Parts of conveyors	<1	U.S. Japan Germany	Canada Mexico Australia	Germany Canada Mexico	<ul style="list-style-type: none"> U.S. producers anticipate adverse impact 	475
8501.10.4020 AC motors of an output under 18.65 W, other than synchronous motors valued at \$4 or less	Computers Office machines Consumer electronics	Mechanical toys Household appliances	<1	U.S. Japan China	Mexico Canada UK	Japan China Mexico	<ul style="list-style-type: none"> Current U.S. tariff is 4.8 percent 	336
8501.10.4040 Brushless DC motors of an output under 18.65 W, other than synchronous motors valued at \$4 or less	No uses specific to IT identified	Household appliances Mechanical toys Coin returns	<1	U.S. Japan China	Mexico Canada UK	Japan China Mexico	<ul style="list-style-type: none"> Current U.S. tariff is 4.8 percent 	336, 338

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8501.10.4060 DC motors of an output under 18.65 W, other than brushless and other than synchronous motors valued at \$4 or less	Computers Office machines Consumer electronics	Household appliances Mechanical toys	<5	U.S. Japan China	Mexico Canada UK	China Japan Mexico	• Current U.S. tariff is 4.8 percent	336, 338
8501.10.4080 Motors of an output under 18.65 W, other than synchronous motors valued at \$4 or less, capable of operating with both AC and DC	Computers Office machines Consumer electronics	Household appliances	<5	U.S. Japan China	Mexico Canada UK	Austria Japan China	• Current U.S. tariff is 4.8 percent	336, 338
8501.10.60 Motors of an output of 18.65 W or more but not exceeding 37.5 W	Computers Office machines Consumer electronics	Mechanical toys Household appliances	<5	U.S. Japan China	Canada Mexico UK	Korea Mexico Japan		337
8501.20.20 Universal AC/DC motors of an output exceeding 37.5 W but not exceeding 74.6 W	No uses specific to IT identified	Mechanical toys Household appliances	<1	U.S. Japan China	UK Mexico Ireland	China Mexico Japan		339
8501.20.40 Universal AC/DC motors of an output exceeding 74.6 W but not exceeding 735 W	No uses specific to IT identified	Household appliances Power tools Automatic accessories for motor vehicles	<1	U.S. Japan China	Canada Japan Germany	Mexico Japan China		340
8501.31.20 DC motors of an output exceeding 37.5 W but not exceeding 74.6 W	Computers Office machines	Mechanical toys Household appliances	<1	U.S. Japan China	Canada Mexico Germany	Canada Japan Korea		342

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8501.31.40 DC motors of an output exceeding 74.6 W but not exceeding 735 W	Computers Office machines	Household appliances Power tools	<1	U.S. Japan China	Canada Mexico UK	Canada Mexico Japan	• Current U.S. tariff is 4.2 percent	342
8501.31.40(pt.) Direct drive servo motors, DC, of an output exceeding 74.6 W but not exceeding 735 W	Computers Office machines	Industrial machinery	0	U.S. Japan China	Canada Mexico UK	Canada Mexico Japan	• Current U.S. tariff is 4.2 percent	341
8501.31.50 DC motors of an output exceeding 735 W but not exceeding 746 W	Computers Office machines	Automatic accessories for motor vehicles	<1	U.S. EU Japan	Canada Mexico UK	Germany Taiwan HK		342
8501.31.60 DC motors of an output exceeding 746 W but not exceeding 750 W	No uses specific to IT identified	Household appliances Power tools	<1	U.S. EU Japan	Mexico Canada Saudi Arabia	Japan Germany Mexico		342
8501.32.20 DC motors of an output exceeding 750 W but not exceeding 14.92 kW	No uses specific to IT identified	Industrial machinery	<1	U.S. EU Japan	Canada UK Germany	Mexico Brazil Germany		343
8501.32.55 DC motors of an output exceeding 14.92 kW but not exceeding 75 kW, other than electric motors of a kind used as the primary source of mechanical power for electrically powered vehicles of subheading 8703.90	No uses specific to IT identified	Industrial machinery Household appliances	<1	U.S. EU Japan	Australia Korea Germany	Japan UK Germany	• Current U.S. tariff is free	343

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8501.33.20 DC motors of an output exceeding 75 kW but under 149.2 kW	No uses specific to IT identified	Electrical vehicles Industrial machinery Household appliances	<1	U.S. EU Japan	Canada UK Korea	UK Czech Rep. Germany	• Current U.S. tariff is free	344
8501.33.30 DC motors of an output exceeding 149.2 kW but under 150 kW	No uses specific to IT identified	Electrical vehicles Industrial machinery Household appliances	<1	U.S. EU Japan	Belgium Mexico Korea	Mexico Germany UK		344
8501.33.40 DC motors of an output exceeding 150 kW but not exceeding 375 kW	No uses specific to IT identified	Electrical vehicles Industrial machinery Household appliances	<1	U.S. EU Japan	Canada Korea Italy	Mexico Canada Belgium		344
8501.34.30 DC motors of an output exceeding 375 kW	No uses specific to IT identified	Electrical vehicles Industrial machinery Household appliances	<1	U.S. EU Japan	Canada New Zealand Mexico	Mexico Canada Italy		345
8501.40.20 Single-phase AC motors of an output exceeding 37.5 W but not exceeding 74.6 W	No uses specific to IT identified	Mechanical toys Household appliances Automatic accessories for motor vehicles	<1	U.S. EU Japan	Canada Mexico Japan	Mexico China Japan		346
8501.51.4040 Multi-phase AC motors of an output exceeding 74.6 W but not exceeding 735 W	No uses specific to IT identified	Household appliances Power tools	<1	U.S. EU Japan	Mexico Korea Malaysia	Japan UK Germany		347
8501.52.40 Multi-phase AC motors of an output exceeding 750 W but not exceeding 14.92 kW	No uses specific to IT identified	Electrical vehicles Industrial machinery Household appliances	<1	U.S. EU Japan	Canada Mexico Taiwan	Mexico Japan Germany		348

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Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8501.52.8040 Multi-phase AC motors of an output exceeding 14.92 kW but not exceeding 75 kW, other than for use in civil aircraft	No uses specific to IT identified	Electrical vehicles Industrial machinery Household appliances	<1	U.S. EU Japan	Canada Mexico France	Mexico China Germany	<ul style="list-style-type: none"> Current U.S. tariff is free 	348
8501.53.4080 Multi-phase AC motors of an output exceeding 75 kW but not exceeding 149.2 kW, other than for use in civil aircraft	No uses specific to IT identified	Electrical vehicles Industrial machinery Household appliances	<1	U.S. EU Japan	Canada Venezuela Mexico	Mexico France Taiwan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan (A-588-840) Current U.S. tariff is free 	349
8501.53.8040 Multi-phase AC motors of an output exceeding 150 kW but not exceeding 373 kW	No uses specific to IT identified	Electrical vehicles Industrial machinery Household appliances	<1	U.S. EU Japan	Canada Mexico Taiwan	Taiwan Brazil Finland	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan (A-588-840) 	349
8501.53.8060 Multi-phase AC motors of an output exceeding 373 kW	No uses specific to IT identified	Electrical vehicles Industrial machinery Subway cars	<1	U.S. EU Japan	Canada Mexico Taiwan	Canada Brazil Taiwan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Japan (A-588-840) 	349
8502.40.00 Electric rotary converters	Radio and television broadcast equipment	Process control equipment Industrial machinery	<1	U.S. Germany Canada	Japan HK Italy	Germany Taiwan Canada		350
8503.00.9520(pt.) Parts of electric motors: capacitor mounting brackets of iron or steel coated with zinc	No uses specific to IT identified	Household appliances Industrial machinery Military applications Motor vehicles	<1	U.S. Mexico Japan	Mexico Canada Japan	Mexico Japan Canada		107

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Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8504.32.00 Electrical transformers having a power handling capacity exceeding 1 kVA but not exceeding 16 kVA	No uses specific to IT identified	Lighting, heating and AC appliances Machine tools Air compressors	<1	U.S. EU Japan	Sweden Canada Mexico	Mexico Canada UK		355
8504.33.0020 Electrical transformers having a power handling capacity exceeding 16 kVA but not exceeding 50 kVA	No uses specific to IT identified	Electrical utility control and distribution apparatus Industrial process control equipment	<1	U.S. EU Japan	Canada Mexico Japan	Mexico Canada China		356
8504.33.0040 Electrical transformers having a power handling capacity exceeding 50 kVA but not exceeding 500 kVA	No uses specific to IT identified	Electrical utility control and distribution apparatus Transformers Machine tools	<1	U.S. EU Japan	Canada Mexico Japan	Mexico Canada Austria		356
8504.40.40 Speed drive controllers for electric motors	No uses specific to IT identified	Stand-alone motors Industrial process control motors	<1	U.S. Japan	Mexico Germany UK	UK Germany Mexico	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) U.S. producers anticipate minimal impact Most U.S. producers are in favor of duty elimination 	334, 357

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8504.40.9510 Power supplies with a power output not exceeding 50 W, other than for ADP or telecommunications apparatus	Consumer electronics	Household appliances Lighting equipment Battery chargers Industrial process control equipment	<1	U.S. Japan China	UK Sweden Japan	Mexico China Taiwan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities Some U.S. producers anticipate minimal impact 	358, 359
8504.40.9510(pt.) Uninterruptible power supplies with power output not exceeding 50 W, other than for ADP or telecommunications apparatus	Consumer electronics	Household appliances Lighting equipment Battery chargers Industrial process control equipment	<1	U.S. Japan Taiwan	UK Sweden Japan	Mexico China Taiwan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities Some U.S. producers anticipate minimal impact 	361

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8504.40.9520 Power supplies with a power output exceeding 50 W but not exceeding 150 W, other than for ADP or telecommunications apparatus	Consumer electronics	Battery chargers Aircraft and military applications Industrial process control equipment	<1	U.S. Japan Taiwan	Japan UK France	Mexico China Taiwan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities Some U.S. producers anticipate minimal impact 	358
8504.40.9520(pt.) Uninterruptible power supplies with a power output exceeding 50 W but not exceeding 150 W, other than for ADP or telecommunications apparatus	Consumer electronics	Battery chargers Aircraft and military applications Industrial process control equipment	5	U.S. Japan Taiwan	Japan UK France	Mexico China Taiwan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities Some U.S. producers anticipate minimal impact 	361

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Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8504.40.9530 Power supplies with a power output exceeding 150 W but not exceeding 500 W, other than for ADP or telecommunications apparatus	Consumer electronics	Battery chargers Aircraft and military applications Industrial process control equipment	<1	U.S. Japan Taiwan	UK Mexico Japan	Mexico Malaysia Taiwan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities Some U.S. producers anticipate minimal impact 	358
8504.40.9530(pt.) Uninterruptible power supplies with a power output exceeding 150 W but not exceeding 500 W, other than for ADP or telecommunications apparatus	Consumer electronics	Battery chargers Aircraft and military applications Industrial process control equipment	<1	U.S. Japan Taiwan	UK Mexico Japan	Mexico Malaysia Taiwan	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities Some U.S. producers anticipate minimal impact 	361

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Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8504.40.9540 Power supplies with a power output exceeding 500 W, other than for ADP or telecommunications apparatus	No uses specific to IT identified	Welding equipment Aircraft and military applications Industrial process control equipment	<1	U.S. Japan Taiwan	Canada Mexico Taiwan	Mexico Japan Canada	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities Some U.S. producers anticipate minimal impact 	358
8504.40.9540(pt.) Uninterruptible power supplies with a power output exceeding 500 W, other than for ADP or telecommunications apparatus	No uses specific to IT identified	Welding equipment Aircraft and military applications Industrial process control equipment	<1	U.S. Japan Taiwan	Canada Mexico Taiwan	Mexico Japan Canada	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities Some U.S. producers anticipate minimal impact 	361

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Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8504.40.9550 Rectifiers and rectifying apparatus other than power supplies	Consumer electronic audio and video equipment	Welding equipment Metering devices Industrial process control equipment	<5	U.S. Japan	Canada Mexico Taiwan	China Taiwan Mexico	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from Italy, France, Taiwan, Japan, and Korea (A-427-030, A-475-031, A-583-806, A-588-809, and A-580-803) Some U.S. producers anticipate adverse impact Some U.S. producers anticipate increased foreign market opportunities Some U.S. producers anticipate minimal impact 	358
8504.50.80 Inductors other than for power supplies for automatic data processing machines and units of 8471 or for telecommunications apparatus	Electric wave filters and circuit componentry for audio and video equipment	Energy storage devices Rectifying equipment	<1	U.S. Japan China	Mexico Canada UK	Mexico Japan China	<ul style="list-style-type: none"> Outstanding antidumping duty order in place on certain imports from France, Italy, and Japan (A-427-030, A-475-031, and A-588-032) 	362
8505.11.00 Permanent magnets and articles intended to become permanent magnets after magnetization, of metal	Manufacture of loudspeakers, scientific instruments, microphones	Manufacture of electronic motors and generators, transformers, inductors	<1	Japan U.S. China	Singapore Mexico Canada	China Japan UK		365
8505.11.00(pt) Permanent magnets, of neodymium	Manufacture of loudspeakers, scientific instruments	Manufacture of electronic motors and generators, transformers, inductors	<1	Japan U.S. China	Singapore Mexico Canada	China Japan UK		366

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8505.19.00 Permanent magnets and articles intended to become permanent magnets after magnetization, of materials other than metal	Manufacture of loudspeakers, microphones	Manufacture of electronic motors and generators, transformers, inductors	<25	Japan U.S. China	Canada Mexico Neth.	China Japan Mexico	• Current U.S. tariff is 4.9 percent	367
8505.90.80 Articles of subheading 8505.90, other than work holders and parts of work holders	Manufacture of semiconductors	Magnetic separation equipment Industrial process control equipment	<1	Japan U.S. UK	Canada Mexico Japan	Japan UK Mexico		368
8506.40.50 Silver oxide primary cells and primary batteries, having an external volume over 300 cm ³	No uses specific to IT identified	Used to power missiles, torpedoes, pyrotechnic devices	<1	Japan Germany U.S.	Mexico France Colombia	Japan Taiwan HK		369
8506.80.00 Primary cells and primary batteries other than manganese dioxide, mercuric oxide, silver oxide, lithium, and air-zinc	No uses specific to IT identified	Used to power military and munitions applications	<1	U.S. China Indonesia	Belgium Mexico Canada	Indonesia China Korea		369
8507.40.80 Nickel-iron storage batteries, not of a kind used as the primary source of electrical power for electrically powered vehicles of subheading 8703.90	Not generally used in IT products	Off-peak power storage	<5	Japan U.S. China	Canada Mexico Israel	Japan China Taiwan		370

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8515.21.00 Fully or partly automatic machines and apparatus for resistance welding of metal	No uses specific to IT identified	Motor vehicles Aircraft Household appliances	0	US EU Japan	Canada Mexico Brazil	Japan Sweden Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	481
8515.80.8085 Electric, laser, or other light or photon beam, ultrasonic, electron beam, etc., machines for welding or spraying of metals or cermets, not brazing or soldering, resistance welding of metals, arc welding, die attaching apparatus, tape automated bonders and wire bonders for assembly of semiconductors, or ultrasonic welding machines	No uses specific to IT identified	Welding space exploration vehicles Welding exceptionally thick metals	<1	U.S. EU Japan	Mexico Canada Ireland	Germany Canada Japan	<ul style="list-style-type: none"> U.S. producers anticipate minimal impact Some U.S. producers anticipate increased foreign market opportunities U.S. tariff will be free in 1999 	482
8515.90.30 Parts of electric welding machines and apparatus other than die attach apparatus, tape automated bonders and wire bonders for assembly of semiconductors of subheading 8518.80	No uses specific to IT identified	Manufacture of electric welding machines for metal working	<1	Japan Germany Canada	Canada Japan Venezuela	Japan Germany Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate increased foreign market opportunities 	485

Table 7-2
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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8531.80.90 Electric sound or visual signaling apparatus other than those of heading 8512 or 8530, burglar or fire alarms, indicator panels incorporating liquid crystal devices or light emitting diodes, or flat panel displays for paging alert devices of 8531.80.70	No uses specific to IT identified	Manufacture of electric horns, bells, buzzers Electric indicator panels not incorporating a light emitting diode or liquid crystal device	<1	Japan Mexico Canada	Canada Mexico Japan	Japan Mexico Canada		306, 309
8535.10.00 Fuses, for electric circuits exceeding 1000 volts	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	0	U.S. EU Japan	Mexico Canada Philippines	Japan Sweden UK	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	375
8535.21.00 Automatic circuit breakers, for electric circuits exceeding 1 kV and less than 72.5 kV	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	0	U.S. EU Japan	Canada Philippines Mexico	Mexico Switz. Brazil	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	376
8535.29.00 Automatic circuit breakers, for electric circuits of 72.5 kV or more	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	0	U.S. EU Japan	Canada Mexico Thailand	Germany Canada Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	377

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HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8535.30.0080 Isolating switches and make- and-break switches, other than knife, for a voltage exceeding 1,000 volts	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	0	U.S. EU Japan	Mexico Japan Canada	Canada Mexico Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	378
8535.40.00(pt.) Surge suppressors, for electric circuits of a voltage exceeding 1,000 V	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	0	U.S. EU Japan	Canada Mexico Taiwan	Mexico China UK	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	379
8535.90.40(pt.) Motor overload protectors, for a voltage exceeding 1,000 V	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	0	U.S. EU Japan	Mexico Neth. Japan	Germany Japan Czech. Rep.	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	380
8535.90.80 Articles of subheading 8535.90, other than motor starters and motor overload protectors	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	0	U.S. EU Japan	Mexico Japan Korea	Germany Mexico Taiwan	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	381
8536.10.00 Fuses for electric circuits not exceeding 1,000 V	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	<1	U.S. EU Japan	Japan Canada Mexico	Mexico Japan UK	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	382, 388

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Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8536.20.00 Automatic circuit breakers, for electric circuits not exceeding 1,000 V	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	<1	U.S. EU Japan	Canada Mexico Saudi Arabia	Mexico Dom. Rep. Ireland	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	383, 388
8536.30.40 Motor overload protectors for a voltage not exceeding 1,000 V	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	<1	U.S. EU Japan	Mexico Canada Neth.	Mexico France Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	388
8536.30.80 Apparatus other than fuses, automatic circuit breakers, and motor overload protectors for protecting electrical circuits not exceeding 1,000 V	No uses specific to IT identified	Power distribution systems in manufacturing facilities and other industrial applications	<1	U.S. EU Japan	Mexico Canada Neth.	China Mexico Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	388
8536.41.00 Relays for a voltage not exceeding 60 V	Communications equipment	Home appliances Motor vehicles	5	U.S. Japan EU	Mexico Canada UK	Japan Mexico	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	384, 388
8536.49.00 Relays for a voltage of 60 V or more but not exceeding 1,000 V	No uses specific to IT identified	Motor vehicles Commercial power distribution Aircraft	<1	U.S. EU Japan	Mexico Canada Taiwan	Japan Mexico Malaysia	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	385, 388

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Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8536.50.40 Motor starters for a voltage not exceeding 1,000 V	No uses specific to IT identified	Power distribution systems for manufacturing and other industrial applications	<1	U.S. EU Japan	Canada Germany Mexico	Canada Japan France	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	386, 388
8536.50.90 Electrical switches, including rotary, push-button, snap- action knife, slide, and limit, and other for a voltage not exceeding 1,000 V, not elsewhere specified or included	Computers Office machines Scientific/medical equipment	Motor vehicles Aircraft Industrial applications	5	U.S. EU Japan	Canada Mexico UK	Mexico Japan Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	386, 388
8536.61.00 Lampholders, for a voltage not over 1,000 V	No uses specific to IT identified	Power distribution systems for manufacturing and other industrial applications	<1	U.S. EU Japan	Mexico Canada UK	Mexico China Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	388
8536.69.80 Electrical plugs and sockets for making connections to or in electrical circuits, for a voltage not exceeding 1,000 V, other than lamp- holders, coaxial connectors, cylindrical multicontact connectors, rack and panel connectors, printed circuit connectors, or ribbon or flat cable connectors.	No uses specific to IT identified	Electrical connections	<1	U.S. EU Japan	Mexico Canada Japan	Japan Taiwan China	<ul style="list-style-type: none"> U.S. tariff will be 2.7 percent in 1999 Industry association supports inclusion of this product in ITA-II 	209

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8536.90.80 Electrical apparatus other than relays, switches, lamp-holders, plugs, sockets, terminals, electrical splices, and electrical couplings, and wafer probers for making connections to or in electrical circuits, for a voltage not exceeding 1,000 V, not elsewhere specified or included	No uses specific to IT identified	Panel boards Switchboards Motor control centers	<1	None identified	Mexico Canada Japan	Mexico Japan China	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	388
8537.10.30 Boards, panels, consoles, desks, cabinets, and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, for a voltage not exceeding 1,000 V, assembled with outer housing or supports for the goods of heading 8421, 8422, 8450, or 8516	No uses specific to IT identified	Power distribution systems for appliances and industrial equipment	<1	U.S. EU Japan	Canada UK Germany	Mexico Canada China	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	389
8537.10.60 Motor control centers for a voltage not exceeding 1,000 V	No uses specific to IT identified	Power distribution systems for manufacturing and other industrial applications	<1	U.S. EU Japan	Canada Mexico HK	Mexico Canada Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	389, 393

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8537.10.90 Boards, panels, consoles, desks, cabinets, and other bases, equipped with two or more apparatus of heading 8535 or 8536, other than motor control centers and articles assembled with outer housing or supports, for the goods of heading 8421, 8422, 8450, or 8516 for electric control or the distribution of electricity, for a voltage not exceeding 1,000 V	Remote controls for consumer electronics Programmable controllers for industrial computers	Power distribution systems for manufacturing and other industrial applications	5	U.S. EU Japan	Canada Mexico UK	Mexico Japan Canada	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	389, 390, 391, 392
8537.20.00 Boards, panels, consoles, desks, cabinets, and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, for a voltage exceeding 1,000 V	No uses specific to IT identified	Power distribution systems for manufacturing and other industrial applications	<1	U.S. EU Japan	Canada Mexico China	Canada Mexico Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	394
8538.10.00 Boards, panels, consoles, desks, cabinets, and other bases for the goods of heading 8537, not equipped with their apparatus	No uses specific to IT identified	Power distribution systems for manufacturing and other industrial applications	<1	U.S. EU Japan	Mexico Canada UK	Canada Germany Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	395

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8538.90.30 Printed circuit assemblies suitable for use solely or principally as part of the apparatus of headings 8535 or 8536	No uses specific to IT identified	Power distribution systems for manufacturing and other industrial applications	<1	U.S. EU Japan	Mexico Canada UK	Mexico Germany Japan	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	396, 397, 398
8538.90.40 Parts suitable for use solely or principally with the apparatus of subheadings 8535.90.40, 8536.30.40, or 8536.50.40, of ceramic or metallic materials, electrically or mechanically reactive to change in temperature	No uses specific to IT identified	Power distribution systems for manufacturing and other industrial applications	<1	U.S. EU Japan	Mexico Canada UK	Switz. Canada France	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	396, 397, 398
8538.90.60 Molded parts suitable for use solely or principally with the apparatus of headings 8535, 8536, or 8537	Molded parts for electronic components	Electric components used in products such as automobiles	5	U.S. EU Japan	Mexico Canada UK	Japan Mexico Germany	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	210, 396, 397, 398

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8538.90.80 Parts not elsewhere specified or included suitable for use solely or principally with the apparatus of headings 8535, 8536, or 8537, including metal contacts and parts of automatic circuit breakers, switchgear, switchboards, panel boards, and distribution boards	No uses specific to IT identified	Parts of electric components	<1	U.S. EU Japan	Mexico Canada Dom. Rep.	Japan Germany Mexico	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact 	396, 397, 398
8538.90.8040 Metal contacts suitable for use solely or principally with the apparatus of headings 8535, 8536, or 8537	Electronic connectors	Electric connectors	5	U.S. EU Japan	Mexico Canada Dom. Rep.	Switz. Japan France	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	210, 396, 397, 398
8538.90.8080 Parts suitable for use solely or principally with the apparatus of headings 8535, 8536, or 8537, not elsewhere specified or included	No uses specific to IT identified	Used to manufacture fuses	<1	Japan EU U.S.	Mexico Canada Dom. Rep.	Japan Germany Mexico	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Industry association supports inclusion of this product in ITA-II 	210, 396, 397, 398
8539.21.4040 Electrical filament tungsten halogen lamps designed for a voltage exceeding 100 V, other than sealed beam lamp units, ultra-violet or infrared lamps: of a power less than 500 W	Photographic lamps	Aircraft landing lights	<1	U.S. EU Japan	Mexico Canada Japan	Mexico Japan Hungary		399

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8540.71.20 Magnetrons modified for use as parts of microwave ovens	None	Microwave ovens	0	Japan China Korea	Brazil UK Ireland	Japan Korea China	<ul style="list-style-type: none"> Some U.S. producers anticipate minimal impact Current U.S. tariff is free Techneglas, Inc. opposes inclusion in ITA-II 	316
8543.90.88 Parts of electrical machines and apparatus having individual functions, not specified or included elsewhere in Ch. 85, other than printed circuit assemblies, parts for flight data recorders, parts of ion implanters of subheading 8543.11, and parts of flat panel displays other than for articles of heading 8528	Parts for the manufacture of dictionary or translation and electroplating machines, microwave amplifiers, and signal generators	Parts for the manufacture of electric fence energizers, aircraft demisters and defrosters and special effects pedals for musical instrument	50	Japan EU Canada	Korea Japan UK	Japan UK Canada	<ul style="list-style-type: none"> Current U.S. tariff is 3.1 percent Outstanding antidumping duty order on certain imports from Japan (A-588-005) 	308, 494, 495
8544.11.00 Insulated copper winding wire	No uses specific to IT identified	Motors and generators	<1	Canada Mexico Brazil	Mexico Canada Thailand	Canada Mexico Brazil		211
8544.19.00 Insulated winding wire, not of copper	No uses specific to IT identified	Motors and generators	<1	Mexico Taiwan China	Mexico UK Canada	Mexico Taiwan China		211

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
8544.30.00 Ignition wiring sets and other wiring sets of a kind used in vehicles, aircraft, or ships	None	Motor vehicles Aircraft Spacecraft Boats and ships	0	Mexico Philippines Thailand	Mexico Canada Thailand	Mexico Philippines Thailand	<ul style="list-style-type: none"> Fargo Assembly opposes inclusion in ITA-II A significant number of smaller U.S. producers may be adversely impacted and would not gain significant advantage as a result of foreign tariff concessions Larger U.S. producers support inclusion in ITA-II 	211
8544.60.40 Insulated electric conductors of copper, not fitted with connectors, for a voltage exceeding 1,000 V	No uses specific to IT identified	Distribution wire and cable Power wire and cable	0	Canada Poland Mexico	Canada Mexico UK	Canada Poland Mexico		211
8544.60.60 Other insulated electric conductors not of copper, not fitted with connectors, for a voltage exceeding 1,000 V	No uses specific to IT identified	Distribution wire and cable Power wire and cable	0	Canada Mexico Costa Rica	Mexico Canada Venezuela	Canada Mexico Costa Rica		211
9032.81.00 Hydraulic and pneumatic automatic regulating or controlling instruments or apparatus	No uses specific to IT identified	Industrial process control applications	<1	U.S. UK Japan	Canada Korea Mexico	Germany Philippines UK	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	537

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9032.89.20(pt.) Automatic voltage and voltage-current regulators for use in a 6, 12, or 24 volt system, other than those with cut-out and used in conjunction with spark- ignition or compression- ignition internal combustion engines	No uses specific to IT identified	Industrial process control applications	<1	U.S. UK Japan	Mexico Canada Ireland	Canada Mexico Germany	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	537
9032.89.40(pt.) Automatic voltage and voltage-current regulators for use in systems other than 6, 12, or 24 volt, other than those with cut-out and used in conjunction with spark- ignition or compression- ignition internal combustion engines	No uses specific to IT identified	Industrial process control applications	<1	U.S. UK Japan	Mexico Canada Ireland	UK Canada Germany	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	537
9032.89.60 Other instruments and apparatus	No uses specific to IT identified	Industrial process control applications	<1	U.S. UK Japan	Canada Mexico Japan	Mexico Canada Japan	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II Outstanding antidumping duty order in place on certain imports from Japan (A-588- 840) 	537
9032.89.6085(pt.) Computerized ship's engine control, alarm and surveillance systems	No uses specific to IT identified	Industrial process control applications	<1	U.S. EU Japan	Canada Mexico Japan	Mexico Canada Japan	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	538

Table 7-2
Industrial equipment and miscellaneous products for inclusion in the ITA-II process

HTS Number Description	Uses			Major Producing Countries	U.S. Trading Partners		U.S. producer/association opposition, support not previously expressed to USTR, and other trade-related comments	Ref. No.
	Information Technology (IT)	Non-Information Technology	Est. % IT		Export markets	Import sources		
9032.90.20 Parts and accessories of automatic voltage and voltage-current regulators for use in a 6, 12, or 24 volt system	No uses specific to IT identified	Industrial process control applications	<1	U.S. EU Japan	Canada Mexico Germany	Germany Switz. Sweden	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	537
9032.90.40 Parts and accessories of automatic voltage and voltage-current regulators for use in systems other than 6, 12, or 24 volt	No uses specific to IT identified	Industrial process control applications	<1	U.S. EU Japan	Canada Mexico Germany	Mexico Canada Japan	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	537
9033.00.00 Parts and accessories of machines, appliances, instruments, or apparatus of Ch. 90 not specified or included elsewhere	No uses specific to IT identified	Various industrial and consumer applications	<1	U.S. UK Japan	Mexico Japan Germany	Belgium Germany UK	<ul style="list-style-type: none"> Industry association supports inclusion in ITA-II 	539
9207.10.00(pt.) Electronic keyboard musical instruments each valued at \$100 or more	None	Musical keyboards	0	Japan U.S. Korea	Colombia Brazil HK	Japan China Korea	<ul style="list-style-type: none"> Current U.S. tariff is 5.7 percent Some U.S. producers anticipate adverse impact Two U.S. producers oppose inclusion in ITA-II U.S. imports account for the major portion of the market 	329

CHAPTER 8

Conclusion

Elimination of tariffs on the products proposed for inclusion in the ITA is expected to increase market access opportunities in most ITA signatory markets for many of these products. The magnitude of the opportunities resulting from the inclusion of these products in the ITA is likely to vary by product and market and to be offset by a number of nontariff barriers and macroeconomic factors. Overall opportunities appear most promising in the high-tariff economies of Asia and Central Europe, where tariffs range from 15 to 50 percent, although financial crises in several Asian countries could reduce or eliminate some of these opportunities. Also, market access opportunities would not encompass Japan and China, the two largest markets in the region, since Japan's duty rates on these IT products are already zero and China is not a signatory to the ITA. Similarly, Hong Kong has zero duty rates and is unlikely to provide increased market opportunities as a result of the ITA-II process. In addition, many Asian countries are low-cost producers of the products under consideration and are likely to supply the bulk of demand in the region. Finally, increased market access for selected products is also likely in the EU, the United States, and Canada, all of which have tariffs on certain products that are sufficiently high to impede imports.

Market Access Opportunities in Asia

Many Asian countries have developed electronics manufacturing industries, which are significant markets for machinery and inputs used to make electronics products. The dominant role of Asian firms in the production of printed circuits presents significant opportunities for increased exports as a result of reduced duties for U.S., EU, or Japanese producers of printed circuit manufacturing machines. Similar export opportunities for producers of electron microscopes are expected in semiconductor and electronic component manufacturing countries such as Korea, Malaysia, Taiwan, and Thailand. Tariff elimination on other electronics manufacturing inputs such as optical instruments, nonferrous metal products, and plastics, as well as industrial machinery, are also expected to create increased market opportunities.

The newly industrialized countries of Asia are also growing markets for a wide variety of consumer goods and services, including the inputs to manufacture and deliver those goods and services. U.S. firms anticipate that tariff elimination will increase opportunities for sales of high-end audio equipment and speakers; transmission apparatus, such as analog cable set top terminals; and batteries and battery packs. Parts of refrigeration equipment, cameras, and recorded media are also likely to benefit from growing consumer spending and duty-free treatment. The rapidly growing Asian market for health care also has increased the demand for medical goods, most of which are imported. In other areas, markets for measuring and testing equipment, scientific equipment, and navigational aid apparatus are showing sizeable growth. A reduction in tariff barriers in Asian countries is likely to increase market access opportunities and could accelerate market growth.

Market Access Opportunities in the EU

The elimination of tariffs on the products proposed for inclusion in the ITA would increase market access opportunities in certain sectors in the EU. The most significant EU tariffs applied to consumer electronics products range from 10 to 15 percent on items such as radios, video recorders, color televisions, and color

picture tubes. Elimination of these tariffs could improve market access opportunities, principally for low-cost Asian producers such as China, Malaysia, and Indonesia. Some U.S. producers believe that opportunities in the EU would also increase for high-end audio equipment, speakers, and analog cable set top terminals. Market opportunities also are likely to increase for electrostatic photocopiers, which have a 6-percent tariff, and for nonferrous metal products, particularly aluminum products, which have tariffs ranging up to 7.5 percent.

Producers of high technology goods, including microscopes and parts of communications satellites, may benefit from tariff elimination in the EU. Japanese microscope producers, and to a lesser extent producers in Korea, Taiwan, and China, who, together with German and Austrian firms, account for much of the global production of microscopes, would likely gain from the elimination of the fairly significant EU tariffs on microscopes, ranging from 3.7 to 6.7 percent. Tariff elimination for microscopes could significantly increase market access particularly in connection with rapidly growing, high-technology sectors such as biotechnology. The EU is one of the top U.S. export markets for parts of communications satellites and the elimination of the EU's common external tariffs, which range up to 2.7 percent, would be expected to benefit U.S. producers.

Market Access Opportunities in North America

Most U.S. tariffs on the products in this report are less than 5 percent and a large number are free. As a result, few opportunities for increased U.S. market access can be expected from tariff elimination. The highest U.S. tariffs applied to the products covered in this report are on cathode-ray picture tubes, for which imports of non-North American origin remain subject to a 9- or 15-percent duty, depending on screen size. If this tariff were removed, it is likely that there would be increased opportunities, principally for Asian producers, in the U.S. market. Relatively high U.S. tariffs are also applied on microscopes and parts, ranging from 3.9 to 7.2 percent. The elimination of these tariffs together with growing demand from high-technology sectors such as the biotechnology, semiconductor, and electronic component manufacturing should accelerate market access opportunities. Other U.S. markets that may present slightly greater access to foreign suppliers are office machines, with tariffs that range from 1.6 to 2 percent; electrostatic photocopiers, dutiable at 3.7 percent; and navigational aid apparatus, with tariffs up to 3.2 percent.

Canadian tariffs, like those of the United States, are generally low. ITA participants, other than the United States, which currently has duty-free access to the Canadian market, would probably realize greater access to the Canadian market for office machines if Canada's tariffs on these products, which range as high as 6.7 percent, are eliminated. Currently, Canadian duty rates for printed circuit manufacturing machinery range from free to 9.2 percent with many duty rates being between 6 and 8 percent. If Canada eliminates all of its duties on these items on a MFN basis, U.S. producers will have to compete on the same basis as other foreign producers, and U.S. exports may fall.

Nontariff Barriers

The trade-restricting effects of nontariff barriers vary significantly from country to country and may limit many of the benefits of tariff elimination. Although many different types of impediments to trade in products covered in this report were named by U.S. industry representatives, the most often cited barrier was widespread lack of intellectual property rights (IPR) protection. U.S. exporters also encounter unclear standards and certification requirements, especially the EU's Common European (CE) mark; discriminatory government procurement; subsidies by foreign governments to domestic producers; inconsistent customs procedures; and other regulatory and structural impediments. In addition, U.S. industry representatives contend that government financial assistance policies and subsidies create direct and indirect barriers to trade in radar, navigational aid, remote control apparatus, and fiber optics.

A U.S. industry representative named Greece, Ireland, and Italy, as well as Hong Kong, Indonesia, Israel, India, the Philippines, Poland, Korea, Romania, Taiwan, and Thailand, as violators of the intellectual property rights of U.S. producers of recorded music and movies. Trade barriers cited by U.S. chemical products manufacturers include insufficient patent protection in Costa Rica and India. Inadequate intellectual property protection for optical fiber was noted specifically for China, Brazil, and India. The lack of IPR protection is also a trade barrier for industrial process controls and measuring and checking equipment in Hong Kong, India, Japan, and Taiwan. Industry representatives report that process controls have been subject to reverse engineering through which purchasers replicate the software within the product and market the imported systems as their own. U.S. producers stated that lack of IPR protection has also allowed reverse engineering and patent infringement of certain measuring and checking instruments. Similar problems have been identified by U.S. motor producers selling in the Korean and Taiwan markets. There have been numerous examples of patented U.S. products being purchased, reverse engineered, and sold under another brand name without permission or royalty payments. In addition, U.S. producers of coin and bill acceptors have reported instances in which Taiwan competitors allegedly have reverse-engineered U.S. products.

Standards barriers were identified in the EU, Japan, and Korea for various goods and industrial products. The certification processes associated with the EU's CE mark and Japan's International Electrical Code (IEC) have been cited by U.S. manufacturers as a significant trade barrier for many of the products covered in this report. They maintain that the CE mark requirements are unclear and inconsistently enforced, causing unpredictable delays and increasing product costs. Further, IEC standards differ from U.S. standards and require U.S. producers to manufacture a separate product line to sell in Japan, thereby reducing economies of scale. According to industry representatives, the EU maintains restrictions relating to the sodium content of metals, which apply only to imports, creating a barrier to trade in aluminum sputtering targets. U.S. producers named discriminatory standards, certification, testing, and approval systems in Korea as significant barriers to trade. In January 1995, Korea promulgated new, extensive product test requirements which appear to oblige exporters to share commercially sensitive information with industry trade groups in Korea. This testing can lead to increased costs and a possible loss of competitive advantage if proprietary information is not protected. In addition, Korea was noted for applying consumer and commercial products standards to industrial products.

U.S. industry representatives maintain that manufacturers in the EU, Japan, Korea, and Norway receiving shipbuilding-related subsidies are encouraged to obtain the ships' navigational apparatus from domestic sources, which diminishes sales opportunities for U.S. producers. In addition, Japan allegedly provides various incentives to facilitate development of its aerospace industry, including government loan subsidies and preferential loans for development and research, including navigational apparatus. According to a U.S. industry representative, certain foreign governments subsidize the production of optical fiber in order to foster the development of a domestic industry.

U.S. industry representatives have cited discriminatory government procurement practices as a barrier to trade in electrical ballasts, optical fiber, and medical goods. U.S. firms mentioned discriminatory government procurement for lighting systems in public buildings and for fiber optic cable, which is used in telecommunications networks. Taiwan's new national health insurance system reportedly has conferred a cost and price advantage on domestic devices in some instances by reimbursing doctors less for procedures using foreign-made medical goods than for procedures using similar domestically produced medical goods. U.S. firms state that eliminating tariffs in these countries and addressing government regulatory, reimbursement, and procurement measures, could result in increased market access for U.S. medical equipment producers.

U.S. producers have stated that Korea and Poland assess movie import duties on the perceived value of the film's future royalties, greatly increasing the amount of duty paid. Including these items in the ITA would stem this practice. Other customs barriers reported by U.S. industry representatives were inconsistent trade classification in Central Europe countries and lengthy, cumbersome, and unnecessary customs procedures and restrictions in India, Japan, and the Philippines that delay entry and adversely affect imports. Lack of adherence

to the Customs Convention on the Admission Temporaire/Temporary Admission (ATA) Carnet for the Temporary Admission of Goods, under which importers may forego duties for up to a year on goods used for purposes such as trade shows, exhibitions, or repair, was also identified by U.S. industry. Industry representatives suggest that ITA-wide adoption of this convention would include the few ITA participants that do not yet adhere to the ATA and eliminate this as a barrier.

A number of other nontariff barriers were cited by one or more U.S. producers, including Japan's distribution channels, weak enforcement of its Antimonopoly Law, and exclusionary business practices. U.S. industry representatives have named the EU's 20-percent VAT as a nontariff barrier affecting exports of measuring and checking equipment and process controls. A similar VAT imposed in the Philippines represents another significant trade barrier affecting drill bit imports and other cutting tools. In addition, the proposed EU requirement that products sold in the EU be in metric sizes was identified by several sources. Other barriers included environmental restrictions, import licensing, technology transfer requirements, restrictions on visas, local content requirements, and labeling.

APPENDIX A

REQUEST LETTER FROM USTR

[illegible]

Jun 16 1:11:42

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International Trade Commission
500 E. STREET, N.W.
Washington, D.C. 20436

Achieving improved market access has been a U.S. objective that was advanced in the context of the Uruguay Round negotiations and the creation of the World Trade Organization (WTO). The successful conclusion of the Information Technology Agreement (ITA) opened markets in 42 countries to U.S. exports of computers, semiconductors, and telecommunications and other electronic products of the information age. The ITA now includes 43 participants and covers over 93 percent of world trade in information technology (IT) products.

The ITA is a dynamic agreement. Early on, the participants recognized that rapidly changing technology and differences in tariff nomenclature made it essential that the agreement be subject to review and expansion, and that provision exist to address any non-tariff barriers that might limit the expected benefits from tariff elimination. At a March 26, 1997 meeting in Geneva, ITA participants agreed on a timetable for this ongoing work, which will be conducted under the auspices of the WTO. This process, which is generally known as "ITA-II", began in October and is scheduled to conclude next summer, and participants will implement the results beginning January 1, 1999.

On September 3, 1997, USTR published a notice in the Federal Register requesting comments on priorities for both the ITA-II process and the Presidents's Framework for Global Electronic Commerce, by September 30, 1997. We received considerable detailed advice from the U.S. private sector concerning potential products for the ITA-II process. In addition we received ideas on potential products from our trading partners.

The Honorable Marcia E. Miller

Page Two

While we have received technical assistance from Commission staff concerning these lists of products on an ongoing basis, I request, pursuant to section 115 of the URAA and section 332 of the Tariff Act of 1930, that the Commission provide information and advice to USTR on the list of information technology products attached to this letter. This information and advice should be delivered in two phases.

In the first phase, I request that the Commission provide detailed descriptions of the products on the attached list, the uses of these products relative to IT industries and consumers as well as to non-IT industries and consumers, and the major producing countries, U.S. export markets, and sources of U.S. imports. In reviewing the products on the attached list, identify those products that are viewed as import sensitive by U.S. industry or other sources as well as any similar products that could reasonably be expected to be included in these product groupings but are not. I request that the Commission provide this information and advice no later than March 27, 1998. In the second phase, I request that the Commission, to the extent possible, analyze briefly current tariff and non-tariff trade barriers, if any; patterns of U.S. imports and U.S. exports, and increased opportunities resulting from proposed tariff modifications. I request that the Commission provide this information and advice at the earliest possible date, but no later than May 1, 1998.

It is the intent of this office to make the Commission's reports available to the public in their entirety. Therefore, the reports should not contain any confidential business or national security classified information. In the event that the Commission obtains confidential business information during its information-gathering in response to this request, we may wish to have access to that information. Recognizing the difficulty of this task we will continue to have our staffs work at the technical level to clarify further product definitions as information becomes available.

I appreciate your assistance and cooperation on this matter and look forward to working with you and your staff on these issues in the future.

Sincerely,



Charlene Barshefsky

Enclosure

APPENDIX B

CHAIRMAN'S RESPONSE LETTER TO USTR

(Not included in the electronic version of this report)

APPENDIX C

FEDERAL REGISTER NOTICE

(Not included in the electronic version of this report)

APPENDIX D

USTR'S LIST OF POTENTIAL PRODUCTS FOR THE ITA-II PROCESS

Table D-1

USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
	Minerals used by the capacitor and resistor industries, including but not limited to:			
1	Powders - Tantalum	261590x	2615.90.6060	Ch. 6
	Chemicals used by the medical imaging technology industry, including but not limited to:			
2	X-ray photographic flat plates and film in the flat, sensitized, unexposed or of any material other than paper, paperboard or textiles	370110	3701.10.0030	Ch. 3
3	X-ray photographic film in rolls, sensitized, unexposed or of any material other than paper, paperboard or textiles	370210	3702.10.0030	Ch. 3
4	Photographic paper, paperboard and textiles; sensitized, unexposed	3703	Withdrawn	Appen. F
5	Chem preparations for photographic uses (other than varnishes, glues, adhesives and imilar preparations	3707x	Withdrawn	Appen. F
	Chemicals used by the capacitor and resistor industries, including but not limited to:			
6	Silcone oil	2710x	Withdrawn	Appen. F
7	Other iron oxides and hydroxides	2821100050	2821.10.0050	Ch. 6
8	Powders - Tantalum	282590x	2825.90.90	Ch. 6
9	Ceramic powder	28419050x	Unknown	Appen. F
10	Dielectric Conductors - Silver Compounds	2843x	2843.21.00 2843.29.00	Ch. 6 Ch. 6
11	Powders - Tantalum	28499050x	2849.90.50	Ch. 6
12	Ammonium adipate	291712x	2917.12.20	Ch. 6
13	Color paste (TOSCA required)	320649x	3206.49.10 3206.49.20 3206.49.30 3206.49.50	Ch. 6 Ch. 6 Ch. 6 Ch. 6
14	Hardener	3211x	3211.00.00	Ch. 6
15	Black marking ink, including printing ink (TOSCA required) and other marking ink	3215x	3215.90.50	Ch. 5
16	Softener detergent (TOSCA required)	340290x	3402.90.10 3402.90.30 3402.90.50	Ch. 7 Ch. 7 Ch. 7
17	Casein glue	35019020	3501.90.20	Ch. 7
18	Solder plaste (TOSCA required)	381010x	3810.10.00	Ch. 6
19	Flux	381010x	3810.90.10 3810.90.20 3810.90.50	Ch. 6 Ch. 6 Ch. 6
20	Thinner (TOSCA required)	3814x	3814.00.10 3814.00.20 3814.00.50	Ch. 6 Ch. 6 Ch. 6
21	BYK chemic A501 Degresor (TOSCA required)	3823x	Withdrawn	Appen. F
	Chemicals used by the semiconductor and/or printed circuit board industries:			
22	Arsenic	280480	2804.80.00	Ch. 6
23	Phosporous oxychloride	2827x	2812.10.5010	Ch. 6

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
	Chemicals used by the semiconductor and/or printed circuit board industries (continued):			
24	Hexamethyldisilazane/ Tetraethylorthosilicate	2931009010x		
	Tetraethylorthosilicate		2920.90.50	Ch. 6
	Hexamethyldisilazane		2931.00.9010	Ch. 6
25	Hole Plugging and Legend Inks	32159050x		
	Hole Plugging Inks		Unknown	Appen. F
	Legend Inks		3215.90.50	Ch. 5
26	Photomasks (Blank) and photomasks	37019930x	3701.99.30	Ch. 5
27	Solder mask	370295x	3702.95.00	Ch. 5
28	Conformal Coatings	370295x	3702.95.00	Ch. 5
29	Dry film photoresist	370295x	3702.42.00 3702.43.00 3702.44.0060	Ch. 5 Ch. 5 Ch. 5
30	Photomasks	370590x	3705.90.00	Ch. 5
31	Liquid photoresist; developer	370790x	3707.90.3290	Ch. 6
32	Solder Paste	381010x	3810.10.00	Ch. 6
33	Solder Paste Flux	3810x	3810.90.10 3810.90.20 3810.90.50	Ch. 6 Ch. 6 Ch. 6
	Other chemical products used in the production of information technology products:			
34	Motion picture film, exposed and developed, whether or not incorporating sound track or consisting only of sound track of a width of 35 mm or more	370610	3706.10.30 3706.10.60	Ch. 2 Ch. 2
	Plastics and rubber articles used by the capacitor and resistor industries, including but not limited to:			
35	Epoxide resin (TOSCA required)	390730	3907.30.00	Ch. 6
36	PCV rolls	39211250x	3923.90.00	Ch. 5
37	PCV tubes	391732x	3923.90.00	Ch. 5
38	Tape	391910x	3919.10.20	Ch. 6
39	Adhesive tape	3919x	3919.10.20	Ch. 6
40	Non-Metallized Polypropylene Film	392020x	3920.20.00	Ch. 6
41	Non-Metallized Polycarbonate Film	392061x	3920.61.00	Ch. 6
42	Non-Metallized Polyethylene Naphthalate/Terephthalate	392062		
	Terephthalate		3920.62.00	Ch. 6
	Naphthalate		3920.69.00	Ch. 6
43	Of other polyesters (including metallized Teflon of other polyester)	392069		
	Other polyesters		3920.69.00	Ch. 6
	Teflon of other polyester		3920.99.20	Ch. 6
44	Non-Metallized Film	392099x	3920.99.20	Ch. 6
45	Non-metallized teflon	392099x	3920.99.20	Ch. 6
46	Tubing (pet)	3920x	3926.90.9880	Ch. 7
47	Polyester or polycarbonate foil	3921904090x	3921.90.4090	Ch. 6

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
	Plastics and rubber articles used by the capacitor and resistor industries, including but not limited to (continued):			
48	PVC bottles	3923300090x	3923.30.0090	Ch. 7
49	Plastic balls (red or yellow)	3923x	3926.90.9880	Ch. 7
50	Plastic cans	392390x	3923.90.00	Ch. 5
51	Packing material	392390x	3923.90.00	Ch. 5
52	Plastic production rolls	39269098x	3926.90.9880	Ch. 7
53	Gaskets, including rubber O-rings/pads	401693x	4016.93.50	Ch. 7
54	Vent plugs, rubber rollers	401699x	4016.99.15	Ch. 7
	Plastics and rubber articles used by the semiconductor and/or printed circuit board industries:			
55	Mold Compounds for Semiconductor Encapsulation/Epoxy Resins	390730x	3907.30.00	Ch. 6
56	Polyimide	3908x	Unknown	Appen. F
57	Epoxy coverlay	39199050x	3919.90.5060	Ch. 6
58	Epoxy Coverlay	39199050x	3919.90.5060	Ch. 6
59	B-Stage or Bonding Plys	392190x	3921.90.4090	Ch. 6
60	UnReinforced Laminates	39219050x	Unknown	Appen. F
61	Semiconductor Shipping Tubes, Packing Foam, and Tape and Reel Strip Packs	392390	3923.90.00	Ch. 5
	Plastic and rubber articles used by information firms:			
62	Metallized Films	39209920x	3920.99.20	Ch. 6
63	Carrying Trays for IC+s	392310x	3923.10.00	Ch. 5
	Paper products used by the capacitor and resistor industries, including but not limited to:			
64	Condenser paper; unbleached, weighing over 15gm/m2 but not over 30gm/m2,	48043110	4804.31.10	Ch. 6
65	Other condenser paper, unbleached, weighing under 15gm/m2 or over 30gm/m2	48043120	4804.31.20	Ch. 6
66	Other condenser paper	48043920	4804.39.20	Ch. 6
67	Wrapping paper	4804490 x	Withdrawn	Appen. F
68	Condenser paper weighing 150 gm/m2 or less	48056020	4805.60.20	Ch. 6
69	Folding cartons, boxes and cases, of noncorrugated paper or paperboard, other	4819200040	Withdrawn	Appen. F
70	Carrier tape-paper/pressure sensitive	482311x	4823.11.00	Ch. 7
71	Carrier tape, other (not pressure sensitive)	482319x	4823.19.00	Ch. 7
72	Aluminum Foil/Plain Silver < 0.01 mm	482390x	4823.90.65 4823.90.85	Ch. 7 Ch. 7
73	Non-metallized paper/other	482390x	4823.90.65 4823.90.85	Ch. 7 Ch. 7
74	Metallized paper	482390x	4823.90.65 4823.90.85	Ch. 7 Ch. 7

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
	Glass materials used by the semiconductor and/or printed circuit board industry including but not limited to:			
75	Rod of Fused Quartz or Other Silica	70022010	7002.20.10	Ch. 6
76	Tube of Fused Quartz or Other Silica	70023100	7002.31.00	Ch. 6
	Glass materials used by the semiconductor and/or printed circuit board industry including but not limited to (continued):			
77	Synthetic Quartz Substrate/Glass substrates used in the production of photomasks	70060040x	7006.00.4050	Ch. 6
78	LensBlank, Silicon Dioxide	70140010x	7014.00.10	Ch. 5
79	Other optical Elements, silicon dioxide	70140020x	7014.00.20	Ch. 5
80	Mass Lamination Panels	70169050x	7410.21.30	Ch. 6
81	Glassware of Fused Quartz	701710x	7017.10.60	Ch. 6
82	Raw Glass Substrates	7020x	7020.00.60	Ch. 5
	Glass materials used by the capacitor and resistor industries, including but not limited to:			
83	Parts for Cones, glass envelope	701120x	7011.20.10 7011.20.80	Ch. 2 Ch. 2
	Metals or articles of metals used by the capacitor and resistor industries, including but not limited to:			
84	Gold Bonding Wire	71081370x	7108.13.70	Ch. 6
85	Silver	711590x	7106.92.50	Ch. 6
86	Silver wire	71159040x	7408.22.50	Ch. 6
87	Sputtering targets	730620x	7419.99.5050 7508.90.50 7616.99.5090	Ch. 6 Ch. 6 Ch. 5
88	Pins	73170065x	Unknown	Appen. F
89	Other bolt and screws	73181560x	7318.15.2010 7318.15.6030	Ch. 7 Ch. 7
90	Other articles of iron or steel -- other	732690	ITA-1	Appen. F
91	Copper wire	7408	7408.19.00	Ch. 6
92	Copper plates	7409x	ITA-1	Appen. F
93	Round brass	7419995050x	7409.21.0090	Ch. 6
94	Aluminum wire (tab)	76061160x	7605.19.00 7606.11.3060 7607.11.30 7607.11.60 7607.11.9090	Ch. 6 Ch. 6 Ch. 6 Ch. 6 Ch. 6
95	Etched capacitor foil	76071910	7607.19.10 7607.19.60	Ch. 6 Ch. 6
96	Aluminum rivets, inserts, washers, screws	761610x		
	Rivets		7616.10.30	Ch. 5
	Inserts		ITA-1	Appen. F
	Washers		7616.10.9090	Ch. 5
	Screws		7616.10.7030 7616.10.9030	Ch. 7 Ch. 5

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
97	Other aluminum articles, nspf	7616995090	Unknown	Appen. F
98	Lead Wire	7806x	8311.30.30 8311.30.60	Ch. 6 Ch. 6
99	Tin wire	80030x	8003.00.00	Ch. 6
100	Powders tantalum	810310x	8103.10.6030	Ch. 6
	Metals or articles of metals used by the capacitor and resistor industries, including but not limited to (continued):			
101	Tantalum wire	810390x	8103.90.00	Ch. 6
102	Steel cutters	8203x	8208.10.00	Ch. 7
103	Screw wrenches	8204x	Unknown	Appen. F
104	Drill bits	820719x	8207.50.20 8207.50.40 8207.50.60	Ch. 7 Ch. 7 Ch. 7
105	Centering arm set	82074060x	Unknown	Appen. F
106	Knives	8208x	8208.10.00 8208.90.60	Ch. 7 Ch. 7
107	Clamps, brackets	8302496085x	8503.00.9520	Ch. 7
108	Solder	8311x	8311.30.30 8311.30.60	Ch. 6 Ch. 6
	Metals or articles of metals used by information technology firms, including but not limited to:			
109	Wire of iron or non-alloy steel: plated or coated with zinc: round wire: with a diameter <1.0 mm, containing by weight <0.25% of carbon	7217204510	Withdrawn	Appen. F
110	Copper Clad Laminates "Unreinforced Laminates"	74102130x	7410.21.30	Ch. 6
111	Aluminum Foil rolled but not further worked, of thickness not exceeding 0.01mm	76071130	7607.11.30	Ch. 6
112	Aluminum foil, rolled but not further worked, of thickness exceeding 0.01mm	76071160	7607.11.60	Ch. 6
113	Unfinished harddisks for ADP mach.	7616x	7616.99.5090	Ch. 5
114	Zinc Wire	7904 x	7904.00.00	Ch. 6
115	Tin foil < 0.2 mm	80050010	8005.00.10	Ch. 6
116	Bill acceptors, safety deposit box applications	8303x	8303.00.00	Ch. 7
	Printed Circuit/Wiring Board Manufacturing, Assembly and Testing Equipment including but not limited to:			
117	Carbide and twist drill bits for PCB/PWB fabrication	8207.50x	8207.50.4030	Ch. 7
118	Carbide router bits for PCB/PWB fabrication	8207 70x	8207.90.7530	Ch. 7
119	Apparatus for the regeneration of etchant solutions	8421 29x, 8479 82x, 8479 79x	8479.89.9797	Ch. 4
120	Parts of apparatus for the regeneration of etchant solutions	8421 99x	8479.90.9785	Ch. 4
121	Apparatus for cleaning PCB/PWBs during the assembly process	8422.20x, 8424 89x	8424.89.7090 8479.89.9797 8479.90.9785	Ch. 4 Ch. 4 Ch. 4
122	Apparatus to enclose or hermetically seal PCB/PWB assemblies	8422.40x	8424.89.7090 8477.10.90	Ch. 4 Ch. 4

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
123	Apparatus for application of non-defined coating via flooding during PCB/PWB processing	8424 89x, 8479 89x	8424.89.7090 8479.89.9797	Ch. 4 Ch. 4
124	Appliances for coating solder, photosensitive layers or other chemical solutions on substrates or components used for the manufacture of PCB/PWBs (e.g. horizontal/vertical wet processing equipment, hot air solder leveling equipment, wave soldering equipment)	8424 89x	8424.89.7090 8479.89.9797 8515.19.00	Ch. 4 Ch. 4 Ch. 4
125	Horizontal Cleaning Machines for PCB's (pumice spray)	8424 89x	8424.89.7090	Ch. 4
126	Spraying appliances for etching, stripping or cleaning PCB/PWBs	8424 89x	8424.89.7090	Ch. 4
	Printed Circuit/Wiring Board Manufacturing, Assembly and Testing Equipment including but not limited to (continued):			
127	Parts of appliances for coating solder, photosensitive layers or other chemical solutions on substrates or components used for the manufacture of PCB/PWBs	8424 90x	8424.90.8085	Ch. 4
128	Parts of spraying appliances for etching, stripping or cleaning PCB/PWBs	8424 90x	8424.90.8085	Ch. 4
129	Automated material handling machines for transport, handling and storage of bare PCB/PWBs, PCB/PWB assemblies and their electronic components	8428 39x	8428.33.80 8428.39.80 8428.90.8085	Ch. 4 Ch. 4 Ch. 4
130	Parts of automated material handling machines of heading 8428 for transport, handling and storage of bare PCB/PWBs, PCB/PWB assemblies and their electronic components	8431 39x	8431.39.8015 8431.39.8085	Ch. 4 Ch. 4
131	Printing machinery of a kind used in the manufacture of PCB/PWBs (screen printing equipment)	8443 59x	8443.59.50	Ch. 4
132	Apparatus for application of defined/non-defined liquids to PCB/PWBs during processing	8443 59x	8443.59.50	Ch. 4
133	Equipment operated by laser or other light or photon beam processes: of a kind used in the manufacture of PCB/PWBs (including laser hole formation equipment)	8456 10x	8456.10.80	Ch. 4
134	Batch processing equipment used to generate plasma from gases under vacuum during PCB/PWB processing	8456 90x	8456.99.90	Ch. 4
135	Apparatus for stripping or cleaning PCB/PWBs including plasma equipment	8456 99x	8456.99.90	Ch. 4
136	Drilling Machines/Driller Routers/Routers/Solide Carbide Circuit Board Drills for PCB Substrates	845929x	8465.95.0090	Ch. 4
137	Drill sharpening equipment including high precision apparatus used to re-point carbide drills used in processing of PCB/PWBs	8460 39x	8460.39.00	Ch. 7
138	Cutting or scoring apparatus used during PCB/PWB processing	8461 90x	8465.91.0090 8465.99.8095	Ch. 4 Ch. 4
139	Drilling equipment for PCB/PWB processing	8465 96x	8465.95.0090	Ch. 4
140	Tools for scribing or scoring PCB/PWBs or substrates containing PCB/PWBs, including routing and scoring equipment	8465 99x, 8465.92x, 8465.96x	8465.92.0090 8465.99.8095	Ch. 4 Ch. 4
141	Temperature or pressure-controlled lamination press used to bond layers into multilayer PCB/PWBs	8465 99x	8465.99.8095	Ch. 4
142	Parts and accessories for machines of a kind used in the manufacture of PCB/PWBs	8466 93x	8466.93.5385 8466.93.9585	Ch. 4 Ch. 4
143	Parts and accessories for machines for scribing or scoring PCB/PWBs or substrates containing PCB/PWBs	8466 93x	8466.92.10 8466.92.5090	Ch. 4 Ch. 4
144	Encapsulation equipment for assembly of PCB/PWBs	8477 59x	8477.59.80	Ch. 4
145	Registration equipment (to align and/or punch PCB/PWBs during photographic/mechanical processing)	8477 80x, 8465 99x	8465.99.8095 8477.80.00	Ch. 4 Ch. 4

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
146	Vacuum assisted presses for the lamination of individual PCB/PWBs into multilayer PCB/PWBs	8477 80x	8477.80.00	Ch. 4
147	Parts for encapsulation equipment for assembly of PCB/PWBs	8477 90x	8477.90.8595	Ch. 4
148	Parts for vacuum assisted presses for the lamination of individual PCB/PWBs into multilayer PCB/PWBs	8477 90x	8477.90.8595	Ch. 4
149	Mixing, kneading, crushing, grinding, screening, sifting, homogenizing, emulsifying or stirring machines:	8479 82x	8479.82.0040	Ch. 4
150	Apparatus for the regeneration and mixing of etchant solutions	8479 82x, 8479 89x	8479.82.0040 8479.89.9797	Ch. 4 Ch. 4
	Printed Circuit/Wiring Board Manufacturing, Assembly and Testing Equipment including but not limited to (continued):			
151	Metering or mixing equipment used to extend the life of solutions used during the processing of PCB/PWBs	8479 82 x	8479.89.9797	Ch. 4
152	Apparatus for coating dry film photo resist, photosensitive layers, soldering paste or other adhesive materials on substrates or components used for the manufacture of PCB/PWBs, e.g. horizontal/vertical wet processing equipment, dry film laminators, roller coating and curtain equipment, apparatus for provision spot application	8479 89x, 8424 89x, 8420 10x	8420.10.9080 8424.89.7090 8443.59.50 8479.89.9797	Ch. 4 Ch. 4 Ch. 4 Ch. 4
153	Apparatus and equipment for heating by infrared radiation, ultraviolet and thermal energy during PCB/PWB processing; ovens for curing solder or adhesives during PCB/PWB processing	8479 89x, 8419.39x, 8419.89x	8419.39.0080 8419.89.9085 8479.89.9797	Ch. 4 Ch. 4 Ch. 4
154	Automated machines for the placement or removal of components or contact elements on PCB/PWBs (automated component placement systems)	8479 89x	8479.89.9797	Ch. 4
155	Automated machines for the placement or alignment of PCB/PWBs during the processing (registration equipment)	8479 89x	8479.89.9797	Ch. 4
156	Machines for cleaning the copper surfaces of PCB/PWBs during the manufacturing	8479 89x	8479.89.9797	Ch. 4
157	Solder ball moulder for PCB/PWB assembly	8479 89x	Unknown	Appen. F
158	Anti-static equipment for PCB/PWB processing	8479 89x	8479.89.9797 8543.89.9695	Ch. 4 Ch. 5
159	Vacuum frames for holding one or more PCB/PWBs during assembly	8479 89x	8479.89.9797	Ch. 4
160	Routing equipment used for internal and external profiling during PCB/PWB processing	8479 89x	8465.92.0090	Ch. 4
161	Parts of apparatus for the regeneration and mixing of etchant solutions	8479 90x	8479.90.9785	Ch. 4
162	Parts of apparatus for coating dry film photo resist, photosensitive layers, soldering paste or other adhesive materials on substrates or components used for the manufacture of PCB/PWBs	8479 90x	8479.90.9785	Ch. 4
163	Parts of automated machines for the placement or removal of components or contact elements on PCB/PWBs	8479 90x	8479.90.9785	Ch. 4
164	Parts of machines for cleaning the copper surfaces of PCB/PWBs during the manufacturing	8479 90x	8479.90.9785	Ch. 4
165	Induction or dielectric furnaces and ovens for the manufacture of PCB/PWBs	8514 20x	8514.20.80	Ch. 4
166	Apparatus for curing solder or adhesives during PCB/PWB processing	8514 30x	8514.30.80	Ch. 4
167	Heating equipment and ovens for the manufacture of PCB/PWBs	8514 30x	8514.30.80	Ch. 4
168	Parts of furnaces and ovens for the manufacture of PCB/PWBs	8514 90x	8514.90.80	Ch. 4
169	Machines for soldering components on PCB/PWBs (reflow soldering equipment, hot air solder leveling equipment, wave soldering equipment)	8515 19x	8515.19.00	Ch. 4
170	Apparatus used to bring molten solder into contact with assembled PCB/PWBs	8515 19x	8515.19.00	Ch. 4

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
171	Wet processing apparatus used to clean, strip and plate the edge connectors during PCB/PWB processing	8515 19x	8424.89.7090 8543.30.00	Ch. 4 Ch. 4
172	Apparatus for application, coating or laminating of PCB/PWBs during processing	8518 19x, 8479 89x	Unknown	Appen. F
173	Parts of machines for soldering components on PCB/PWBs	8515 90x	8515.90.40	Ch. 4
174	Apparatus for wet etching, developing, stripping or cleaning PCB/PWBs and their connectors including cleaning equipment, horizontal/vertical wet processing equipment, finger plating equipment	8543 30x	8424.89.7090 8543.30.00 8479.89.9797	Ch. 4 Ch. 4 Ch. 4
175	Parts of apparatus for wet etching, developing, stripping or cleaning PCB/PWBs and their connectors	8543 90x	8424.90.8085 8479.90.9785	Ch. 4 Ch. 4
	Printed Circuit/Wiring Board Manufacturing, Assembly and Testing Equipment including but not limited to (continued):			
176	Laser photo plotters	9006 10x	ITA-1	Appen. F
177	Parts of laser photo plotters	9006 10x	ITA-1	Appen. F
178	Apparatus for the projection or drawing of circuit patterns on sensitized substrates for the manufacture of PCB/PWBs (e.g. exposure equipment, direct imaging equipment)	9010 50x	ITA-1	Appen. F
179	Parts and accessories of apparatus for the projection or drawing of circuit patterns on sensitized substrates for the manufacture of PCB/PWBs	9010 90x	9010.90.90	Ch. 4
180	Photo plotter for drawing or photo-tool for use in the production of PCB/PWB assemblies	9010 50x 9017 10x	ITA-1	Appen. F
181	Apparatus for the physical inspection of concealed solder joints on PCB/PWBs (e.g automatic optical inspection equipment)	9022 19x	9022.19.00	Ch. 4
182	Apparatus for measuring or checking electrical quantities in PCB/PWB assemblies	9030 39x	9030.39.00 9030.83.00	Ch. 4 Ch. 4
183	Electrical bare board test apparatus used to determine continuity or non-continuity of a finished PCB or PWB (known as "Flying Probe" and "Fixture")	9030 39x	9030.89.00	Ch. 4
184	Instruments and apparatus with a recording device for measuring or checking PCB/PWBs and PCB/PWB assemblies (e.g., electrical bare board test equipment and in-circuit test equipment)	9030 83x	9030.83.00	Ch. 4
185	Other instruments and apparatus for measuring or checking PCB/PWBs and PCB/PWB assemblies (e.g., electrical bare board test equipment and in-circuit test equipment)	9030 89x	9030.89.00	Ch. 4
186	Parts and accessories of instruments and apparatus for measuring or checking PCB/PWBs and PCB/PWB assemblies	9030 90x	9030.90.68 9030.90.8830 9030.90.8855 9030.90.8860	Ch. 4 Ch. 4 Ch. 4 Ch. 4
187	Optical instruments and appliances for inspecting assembled PCB/PWBs and the surfaces of bare PCB/PWBs (e.g., automatic optical inspection equipment, error verification and repair equipment)	9031 49x	9013.80.90 9031.49.90	Ch. 5 Ch. 5
188	Parts and accessories of optical instruments and appliances for inspecting assembled PCB/PWBs and the surfaces of bare PCB/PWBs	9031 90x	9013.90.90 9031.90.58	Ch. 5 Ch. 5
	Flat Panel Display Manufacturing Equipment including but not limited to:			
189	Apparatus for chemical vapour deposition on LCD substrates	8419 89x	8479.89.9797	Ch. 4
190	Parts of apparatus for chemical vapour deposition on LCD substrates	8419 90x	8479.90.9785	Ch. 4
191	Spinners for coating photographic emulsions on LCD substrates	8421 19x	8421.19.90	Ch. 4
192	Parts of spinners for coating photographic emulsions on LCD substrates	8421 91x	8421.91.90	Ch. 4

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USTR's list of potential products for the ITA-II process, by reference number, with probable *HTS* classification and chapter number

Ref. No.	Product	USTR's indicative <i>HTS</i> heading	Probable <i>HTS</i> classification	Chapter No.
193	Apparatus for dry-etching patterns on LCD substrates	8456 99x	8456.99.90	Ch. 4
194	Parts and accessories for apparatus for dry-etching patterns on LCD substrates	8466 93x	8466.93.5385	Ch. 4
195	Apparatus for physical deposition on LCD substrates	8543 89x	8479.89.9797	Ch. 4
196	Parts of apparatus for physical deposition on LCD substrates	8543 90x	8479.90.97	Ch. 4
	Capacitor Manufacturing Equipment including but not limited to:			
197	Metal Can Sealing Machines for capacitor manufacturing	8424.89x	Unknown	Appen. F
198	Paper Masking Machines for capacitor manufacturing	8424.89x	8479.89.9797	Ch. 4
199	Automatic Resin Mixer-Doser for capacitor manufacturing	8424.89x	Unknown	Appen. F

Table D-1

USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
	Capacitor Manufacturing Equipment including but not limited to (continued):			
200	Capacitor Assembly Machines	8424.89, 8479.89x	Unknown	Appen. F
201	Sorting and Pre-Flattening Machines/Capacitor Winding Machines	8424.89x	Unknown	Appen. F
202	Registration Systems for capacitor manufacturing	8477.80x	8477.80.00	Ch. 4
203	Winders for Capacitor manufacturing	8479.81x	8479.81.00	Ch. 4
	Satellite and Navigational Equipment, including but not limited to:			
204	Radar apparatus, radio navigational aid apparatus and radio remote control apparatus	8526	8526.10.00 8526.91.00 8526.92.00	Ch. 3 Ch. 3 Ch. 3
205	Fully computerized Vessel Traffic Systems used for radar surveillance and traffic management of harbors and ships, integrating charts, radar and positioning information	852610	8526.10.0020 8526.10.0040	Ch. 3 Ch. 3
206	Car navigation system	852691x	8526.91.00	Ch. 3
207	Spacecraft (including satellites) and Sub-Orbital and Spacecraft Launch Vehicles	880260	8802.60.30	Ch. 3
208	Parts of Communications Satellites	88039030	8803.90.30	Ch. 3
	Cables and connectors, and parts thereof, used by information technology products, including but not limited to:			
209	Plugs	85363080x	8536.69.80	Ch. 7
210	Parts suitable for use solely or principally with the apparatus of headings Nos. 85.35, 85.36 or 85.37	8538	8538.90.60 8538.90.8040 8538.90.8080	Ch. 7 Ch. 7 Ch. 7
211	Insulated wire, cables, and other electrical conductors	8544	8544.11.00 8544.19.00 8544.20.00 8544.30.00 8544.41.80 8544.49.80 8544.51.90 8544.59.20 8544.59.40 8544.60.20 8544.60.40 8544.60.60	Ch. 7 Ch. 7 Ch. 5 Ch. 7 Ch. 5 Ch. 5 Ch. 5 Ch. 5 Ch. 5 Ch. 5 Ch. 7 Ch. 7
212	Coaxial cable and other coaxial electric conductors	854420	8544.20.00	Ch. 5
213	Other electric conductors for a voltage not exceeding 80V, fitted with connectors, of a kind used for data transmission	854441x	8544.41.80	Ch. 5
214	Other electrical conductors, for a voltage not exceeding 80V of a kind used for data transmission	854449x	8544.49.80	Ch. 5
215	Other electric conductors, for a voltage exceeding 80V but not 1000 V, fitted with connectors, of a kind used for data transmission	854451x	8544.51.90	Ch. 5
216	Other electric conductors, for a voltage exceeding 80 V but not exceeding 1000 V, not fitted with connectors	854459	8544.59.20	Ch. 5

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
217	Electrical insulators of any material	8546	8546.10.00 8546.20.00 8546.90.00	Ch. 5 Ch. 5 Ch. 5
218	Other insulating fittings of ceramics	85471080x	8547.10.80	Ch. 5
	Cables and connectors, and parts thereof, used by information technology products, including but not limited to (continued):			
219	Insulating fitting of plastics for electrical machines, appliances or equipment	854720	8547.20.00	Ch. 5
220	Other insulating fittings	8547900010	8547.90.0010	Ch. 5
	Machinery and equipment for household and office use, and parts thereof, including but not limited to:			
221	Duplicating machines, including digital	847210	8472.10.00	Ch. 3
222	Duplicating machines	847210	8472.10.00	Ch. 3
223	ADP supported self-service machines, such as information terminals and ticket dispensers	847290x	8470.90.00 8472.90.9550	Ch. 3 Ch. 3
224	ADP supported banking machines other than ATMs (including payment terminals, chip- card, bank card or cash card processing retailer terminals and document processing terminals	847290x	8472.90.9520 8472.90.9550	Ch. 3 Ch. 3
225	Parts and accessories (other than covers, carrying cases and the like) of typewriters and word processing machines for heading no. 8469	847310	8473.10.40 8473.10.60 8473.10.90	Ch. 3 Ch. 3 Ch. 3
226	Parts and accessoires for ADP supported banking machines and self-service machines, other than ATMs, such as information terminals and ticket dispenser, of heading ex 8472 90	847340x	8473.40.95	Ch. 3
227	Parts and accessories for digital duplicating machines of heading ex 8472 10	847340x	8473.40.95	Ch. 3
228	Parts and accessories (other than covers, carrying cases and the like) of other office machines (e.g. stencil duplicating machines, addressing machines, automatic banknote dispensers, etc.) of heading 8472 (excluding parts and accessories for automatic teller machines covered in ITA)	847340x	8473.40.95	Ch. 3
229	Coin/bill changers/acceptors as part of vending machines	847690x	8476.29.00 8476.89.00 9031.49.90 9031.80.8085	Ch. 5 Ch. 5 Ch. 3 Ch. 3
230	Microphones and Stands therefor	851810	8518.10.80	Ch. 2
231	Single loudspeaker mounted in their enclosure	851821	8518.21.00	Ch. 2
232	Multiple Loudspeakers, mounted in the same enclosure	851822	8518.22.00	Ch. 2
233	Other loudspeakers not mounted in enclosure, including speaker Assy/With Wires for PC	851829	8518.29.80	Ch. 2
234	Headphones, Earphones, combined Microphone/speaker sets	851830	8518.30.20	Ch. 2
235	Audio frequency electric amplifiers	851840	8518.40.20	Ch. 2
236	Subwoofer	85184020x	8518.21.00 8518.40.20	Ch. 2 Ch. 2
237	Electric sound amplifier sets	851850	8518.50.00	Ch. 2
238	Parts of heading 8518	851890x	8518.90.40 8518.90.80	Ch. 2 Ch. 2
239	Parts of microphones, loudspeaker, headphones, earphones, audio frequency electric amplifiers, and electric sound amplifier sets	851890x	8518.90.40 8518.90.80	Ch. 2 Ch. 2

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
240	Coin acceptors as parts of juke boxes	851910x	9031.49.90 9031.80.8085	Ch. 3 Ch. 3
241	Other record players without speakers	851921	8519.21.00	Ch. 2
242	Other record players with speakers	851929	8519.29.00	Ch. 2
243	Turntables (record decks) with automatic record changing mechanisms	851931	8519.31.00	Ch. 2
	Machinery and equipment for household and office use, and parts thereof, including but not limited to (continued):			
244	Other turntables (record decks without automatic records)	851939	8519.39.00	Ch. 2
245	Transcribing machines	851940	8519.40.00	Ch. 2
246	Pocket size cassette players	851992	8519.92.00	Ch. 2
247	Other sound reproducing apparatus (cassette type)	851993	8519.93.40 8519.93.80	Ch. 2 Ch. 2
248	Other non-cassette sound reproducing apparatus	851999	8519.99.00	Ch. 2
249	CD player	8519990045x	8519.99.0045	Ch. 2
250	Dictating machines using only external power	852010	8520.10.00	Ch. 2
251	Digital audio type magnetic tape recorders incorporating sound reproducing apparatus	852032	8520.32.00	Ch. 2
252	Other cassette type magnetic tape recorders incorporating sound reproducing apparatus	852033	8520.33.00	Ch. 2
253	Other non-cassette tape recorders incorporating sound reproducing apparatus	852039	8520.39.00	Ch. 2
254	Other magnetic tape recorders and other sound recording apparatus, whether or not incorporating a sound reproducing device	852090	8520.90.00	Ch. 2
255	Video recorders or reproducers, magnetic tape type	852110	8521.10.30 8521.10.60 8521.10.90	Ch. 2 Ch. 2 Ch. 2
256	Digital video cassette recorders connectable to personal computers	852110x	8521.10.90	Ch. 2
257	Other video recorders or reproducers, excluding magnetic tape-type	852190	8521.90.00	Ch. 2
258	DVD player	852190x	8521.90.00	Ch. 2
259	Parts and accessories suitable for use solely or principally with apparatus of headings 8519 to 8521.	8522	8522.10.00 8522.90.25 8522.90.35 8522.90.55 8522.90.65 8522.90.75	Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2
260	Pick up cartridges for record players	852210	8522.10.00	Ch. 2
261	Television surveillance cameras	8522530x	8525.30.9005 8525.30.9060	Ch. 2 Ch. 2
262	Parts and accessories of turntables, record-players, magnetic tape recorders, video recording or reproducing apparatus, etc.	852290	8522.90.25 8522.90.35 8522.90.55 8522.90.65 8522.90.75	Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2
263	Parts and accessories of telephone answering machines not covered in the ITA	852290x	8522.90.55	Ch. 2
264	Cards incorporating a magnetic stripe	852330	8523.30.00	Ch. 2
265	Phonograph records	852410	8524.10.00	Ch. 2
266	Discs for laser reading systems for reproducing sound only	852432	8524.32.00	Ch. 2
267	Other discs for laser reading systems	85243980	8524.39.80	Ch. 2

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USTR's list of potential products for the ITA-II process, by reference number, with probable *HTS* classification and chapter number

Ref. No.	Product	USTR's indicative <i>HTS</i> heading	Probable <i>HTS</i> classification	Chapter No.
268	Other magnetic tapes for reproducing sound or image of a width not exceeding 4mm	852451	8524.51.10 8524.51.30	Ch. 2 Ch. 2
269	Other magnetic tapes for reproducing sound or image - of a width exceeding 4mm but not exceeding 6.5 mm	852452	8524.52.10 8524.52.20	Ch. 2 Ch. 2
270	Other magnetic tapes for reproducing sound or image - of a width exceeding 6.5 mm	852453	8524.53.10 8524.53.20	Ch. 2 Ch. 2
271	Cards incorporating a magnetic stripe	852460	8524.60.00	Ch. 2

USTR's list of potential products for the ITA-II process, by reference number, with probable *HTS* classification and chapter number

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USTR's list of potential products for the ITA-II process, by reference number, with probable *HTS* classification and chapter number

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USTR's list of potential products for the ITA-II process, by reference number, with probable *HTS* classification and chapter number

Ref. No.	Product	USTR's indicative <i>HTS</i> heading	Probable <i>HTS</i> classification	Chapter No.
	Machinery and equipment for household and office use, and parts thereof, including but not limited to (<i>continued</i>):			
291	Colour video monitors	852821	8528.21.05 8528.21.10 8528.21.16 8528.21.19 8528.21.24 8528.21.29 8528.21.34 8528.21.39 8528.21.41 8528.21.42 8528.21.44 8528.21.49 8528.21.51 8528.21.52 8528.21.55 8528.21.60 8528.21.65 8528.21.70 8528.21.75 8528.21.80 8528.21.85	Ch. 2 Ch. 2
292	Black and white or other monochrome video monitors	852822	8528.22.00	Ch. 2
293	Video projectors	852830	8528.30.10 8528.30.20 8528.30.30 8528.30.40 8528.30.50 8528.30.60 8528.30.62 8528.30.64 8528.30.66 8528.30.68 8528.30.72 8528.30.78 8528.30.90	Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2
294	Data projector for automatic data processing machinges with video input terminal	852830x	8528.30.10 8528.30.20 8528.30.30 8528.30.40 8528.30.50 8528.30.60 8528.30.62 8528.30.64 8528.30.66 8528.30.68 8528.30.72 8528.30.78 8528.30.90	Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2
295	Aerials and aerial reflectors of all kinds;parts suitable for use therewith; not covered by ITA	852910x	8529.10.20 8529.10.70	Ch. 2 Ch. 3
296	Aerials and aerial reflectors of kinds used for devices classified under subheading 8526	852910x	ITA-1	Appen. F

USTR's list of potential products for the ITA-II process, by reference number, with probable *HTS* classification and chapter number

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
	Machinery and equipment for household and office use, and parts thereof, including but not limited to (continued):			
307	Flat Panel displays (including LCD, Electro luminescence, Plasma and other technologies) for products falling within ITA-II (not already covered by ITA)	853180x	8543.89.9695 9013.80.90	Ch. 5 Ch. 5
308	Parts of flat panel displays not already covered by ITA	853190x	8531.90.30 8531.90.90 8543.90.68 8543.90.88 9013.90.90	Ch. 3 Ch. 3 Ch. 5 Ch. 7 Ch. 5
309	Other sound signaling apparatus	8531x	8531.10.00 8531.80.90 8531.90.30 8531.90.90	Ch. 3 Ch. 7 Ch. 3 Ch. 3
310	Color cathode ray television picture tubes, including video monitor cathode ray tubes	854011	8540.11.10 8540.11.24 8540.11.28 8540.11.30 8540.11.44 8540.11.48 8540.11.50	Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2 Ch. 2
311	Black and white or other monochrome cathode ray television picture tubes, including video monitor cathode ray tubes	854012	8540.12.10 8540.12.50	Ch. 2 Ch. 2
312	Television camera tubes; image converters with intensifiers; other photo-cathode tubes	854020	8540.20.20 8540.20.40	Ch. 2 Ch. 2
313	Data/graphic display tubes, color, with a phosphor dot screen pitch smaller than 0.4 mm	854040	8540.40.00	Ch. 2
314	Data/graphic display tubes, black & white or monochrome, with dot pitch less than 0.4mm	854050	8540.50.00	Ch. 2
315	Other cathode ray tubes	854060	8540.60.00	Ch. 2
316	Magnetrons	854071	8540.71.20 8540.71.40	Ch. 7 Ch. 5
317	Klystrons	854072	8540.72.00	Ch. 5
318	Other microwave tubes excluding grid controlled tubes	854079	8540.79.00	Ch. 5
319	Receiver or amplifiers valves and tubes	854081	8540.81.00	Ch. 5
320	Other valves and tubes, including numerical indicator tubes, fluorescent type	854089	8540.89.00	Ch. 5
321	Parts for cathode ray tubes	854091	8540.91.15 8540.91.20 8540.91.50	Ch. 2 Ch. 2 Ch. 2
322	CRT Front Panel Assembly	85409115	8540.91.15	Ch. 2
323	Other CRT Parts	85409150	8540.91.50	Ch. 2
324	Deflection yoke coils and deflection yoke core for CRT monitor use	854091x	8540.91.20 8540.91.50	Ch. 2 Ch. 2
325	Other parts of articles of heading 8540	854099	8540.99.40 8540.99.80	Ch. 5 Ch. 5
326	Contact image sensors	854890x	Unknown	Appen. F
327	Memory cards in multicombinational form, including flash cards (IC-E_PROM cards); Contact image sensors	854890x	Unknown	Appen. F
328	Hands Free Car Kit for Cell Phones;	858130x	8518.30.20	Ch. 2
329	Electronic Keyboards >\$100.00	920710x	9207.10.00	Ch. 7

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
330	Coin/bill acceptors as parts of video games	950410x	9504.10.0030	Ch. 5
	Machinery and equipment for household and office use, and parts thereof, including but not limited to (continued):			
331	Coin acceptors as parts of gaming machines	950430x	9504.30.0060	Ch. 5
332	Bill acceptors as parts of gaming machines	950490x	9504.90.40	Ch. 5
333	Typewriter or similar ribbons < 30mm	961210	9612.10.10	Ch. 5
	Motors, power supplies and similar equipment, and parts thereof, used in information technology products, including but not limited to:			
334	Speed drive controllers	8404x	8504.40.40	Ch. 7
335	Stepping motor driver	84128090	Unknown	Appen. F
336	Motors of an output not exceeding 37.5w: under 18.65 w	850110	8501.10.4020 8501.10.4040 8501.10.4060 8501.10.4080	Ch. 7 Ch. 7 Ch. 7 Ch. 7
337	Motors of an output not exceeding 37.5w: ov 18.65W or more: AC/DC for ADP	85011060x	8501.10.60	Ch. 7
338	DC motors not exceeding 10 w	850110x	8501.10.4040 8501.10.4060 8501.10.4080	Ch. 7 Ch. 7 Ch. 7
339	Electric motors and generators: universal AC/DC motors of an output exceeding 37.5 w but not exceeding 74.6 w	85012020	8501.20.20	Ch. 7
340	Electric motors and generators: universal AC/DC motors of an output exceeding 37.5w; of an output exceeding 74.6 w but not exceeding 735 w	85012040	8501.20.40	Ch. 7
341	Direct drive servo motor	85013140x	8501.31.40	Ch. 7
342	DC motors not exceeding 750 W	850131x	8501.31.20 8501.31.40 8501.31.50 8501.31.60	Ch. 7 Ch. 7 Ch. 7 Ch. 7
343	DC motors exceeding 750W but not exceeding 75 Kw	850132x	8501.32.20 8501.32.55	Ch. 7 Ch. 7
344	DC motors exceeding 75Kw but not exceeding 375 Kw	850133x	8501.33.20 8501.33.30 8501.33.40	Ch. 7 Ch. 7 Ch. 7
345	DC motors exceeding 375 Kw	85013430	8501.34.30	Ch. 7
346	Other AC motors, single phase, of an output exceeding 37.5 w but not exceeding 74.6 w	850140	8501.40.20	Ch. 7
347	Other AC motors, multi-phased, of an output not exceeding 750w	850151	8501.51.4040	Ch. 7
348	AC motors, multi-phased, of an output exceeding 750W but not exceeding 75Kw	850152	8501.52.40 8501.52.8040	Ch. 7 Ch. 7
349	AC motors, multi-phased, of an output exceeding 75Kw	850153	8501.53.4080 8501.53.8040 8501.53.8060	Ch. 7 Ch. 7 Ch. 7
350	Electric rotary converters	850240	8502.40.00	Ch. 7
351	Ballasts for discharge lamps or tubes	850410	8504.10.00	Ch. 5
352	Other electrical transformers having a power handling capacity not exceeding 1 kVa	850431	8504.31.20 8504.31.40 8504.31.60	Ch. 5 Ch. 5 Ch. 5

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USTR's list of potential products for the ITA-II process, by reference number, with probable *HTS* classification and chapter number

Ref. No.	Product	USTR's indicative <i>HTS</i> heading	Probable <i>HTS</i> classification	Chapter No.
353	Transformers having the capacity to handle 40 VA or greater but less than 1 kVA	8504314065	8504.31.4065	Ch. 5

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
	Motors, power supplies and similar equipment, and parts thereof, used in information technology products, including but not limited to (continued):			
354	SMD type I.F. Transformer, SMD type current transformer, SMD type signal transformer	850431x	8504.31.20 8504.31.4035 8504.31.4065 8504.31.60	Ch. 5 Ch. 5 Ch. 5 Ch. 5
355	Other electrical transformers having a power handling capacity exceeding 1 kVa but not exceeding 16 kVa	850432	8504.32.00	Ch. 7
356	Other electrical transformers having a power handling capacity exceeding 16 kVa but not exceeding 500 kVa	850433	8504.33.0020 8504.33.0040	Ch. 7 Ch. 7
357	Speed drive controllers for electric motors	85044040	8504.40.40	Ch. 7
358	Other: rectifiers and rectifying apparatus, including power supplies and parts thereof; inverters, other	85044095	8504.40.9510 8504.40.9520 8504.40.9530 8504.40.9540 8504.40.9550 8504.90.75 8504.90.9550	Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 5 Ch. 5
359	Static converters not exceeding 50w	850440x	8504.40.9510	Ch. 7
360	System Test Racks	850440x	Unknown	Appen. F
361	Static converters providing uninterrupted power supplies	850440x	8504.40.9510 8504.40.9520 8504.40.9530 8504.40.9540	Ch. 7 Ch. 7 Ch. 7 Ch. 7
362	Other Inductors	850450	8504.50.80	Ch. 7
363	Chip type fixed inductor	850450x	8504.50.80	Ch. 5
364	Parts of electrical transformers, static converters (for example, rectifiers) and inductors	850490	8504.90.40 8504.90.75 8504.90.95	Ch. 5 Ch. 5 Ch. 5
365	Permanent Magnets and articles intended to become permanent magnets after magnetization, of metal	850511	8505.11.00	Ch. 7
366	Neodymium metal magnet	850511x	8505.11.00	Ch. 7
367	Permanent Magnets and articles intended to become permanent magnets after magnetization, other	850519	8505.19.00	Ch. 7
368	Other: electromagnets, including parts	85059080	8505.90.80	Ch. 7
369	Primary cells and primary batteries; parts thereof	8506	8506.10.00 8506.30.10 8506.30.50 8506.40.10 8506.40.50 8506.50.00 8506.60.00 8506.80.00 8506.90.00	Ch. 5 Ch. 5 Ch. 5 Ch. 5 Ch. 7 Ch. 5 Ch. 5 Ch. 7 Ch. 5
370	Electric storage batteries, including separators therefor, whether or not rectangular (including square); parts thereof	8507	8507.20.80 8507.30.80 8507.40.80 8507.80.80 8507.90.80	Ch. 5 Ch. 5 Ch. 7 Ch. 5 Ch. 5

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
371	Nickel-cadmium electric accumulators, including separators therefor whether or not rectangular (including square)	850730	8507.30.80	Ch. 5
	Motors, power supplies and similar equipment, and parts thereof, used in information technology products, including but not limited to (continued):			
372	Lithium ion battery	850780x	8507.80.80	Ch. 5
373	Parts of electric accumulators	850790	8507.90.40 8507.90.80	Ch. 5 Ch. 5
374	Regulators	85118060x	Unknown	Appen. F
375	Fuses, for electric circuits of a voltage exceeding 1000 volts	853510	8535.10.00	Ch. 7
376	Automatic circuit breakers, for electric circuits of a voltage exceeding 1kV and less than 72.5 kV	853521	8535.21.00	Ch. 7
377	Automatic circuit breakers, for electric circuits of a voltage exceeding 72.5 kV	853529	8535.29.00	Ch. 7
378	Isolating switches and make-and-break switches, other than knife	85353080	8535.30.0080	Ch. 7
379	Surge suppressors	853540x	8535.40.00	Ch. 7
380	Motor overload protectors	85359040x	8535.90.40	Ch. 7
381	Other electrical apparatus exceeding 1,000v	85359080	8535.90.80	Ch. 7
382	Fuses for electric circuits of a voltage not exceeding 1000 volts	853610	8536.10.00	Ch. 7
383	Automatic circuit breakers, for electric circuits of a voltage not exceeding 1000 volts	853620	8536.20.00	Ch. 7
384	Relays for a voltage not exceeding 60 V	853641	8536.41.00	Ch. 7
385	Relays for a voltage exceeding 60 V	853649	8536.49.00	Ch. 7
386	Motor starters for voltage less than 1000 volts; rotary switches for a voltage less than 1000 volts; push button switches for a voltage less than 1000 volts; slide action, knife slide limit and other switches not covered in ITA	853650x	8536.50.40 8536.50.90	Ch. 7 Ch. 7
387	Centerpin	853690x	Unknown	Appen. F
388	Electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits, for a voltage not exceeding 1000 V, not included in ITA	8536x	8536.10.00 8536.20.00 8536.30.40 8536.30.80 8536.41.00 8536.49.00 8536.50.40 8536.50.90 8536.61.00 8536.90.80	Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7
389	Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, for a voltage not exceeding 1000 V	853710	8537.10.30 8537.10.60 8537.10.90	Ch. 7 Ch. 7 Ch. 7
390	Panel boards, distribution boards and frame supervisory panels used in the manufacture of goods falling within the Agreement	853710x	8537.10.90	Ch. 7
391	Cabinets of heading 8536 for voltage not exceeding 1000 V, including apparatus for automatic connection of separate computer units, fuses as well as microprocessor	853710x	8537.10.90	Ch. 7
392	Items in 853710 for a voltage not exceeding 1000V (line and equipment controller)	853710x	8537.10.90	Ch. 7
393	I/O Backplane Board, Motor control centers, remote controllers, < 1000V	853710x	8537.10.60 8537.10.9060 8537.10.9070	Ch. 7 Ch. 5 Ch. 5

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
394	Boards, panels, consoles, desks, cabinets and other bases, equipped with two or more apparatus of heading 8535 or 8536, for electric control or the distribution of electricity, for a voltage exceeding 1000 V including medium voltage starters	853720	8537.20.00	Ch. 7
	Motors, power supplies and similar equipment, and parts thereof, used in information technology products, including but not limited to (continued):			
395	Parts of boards, panels, consoles, desks, cabinets and other bases for the goods of heading 8537, not equipped with their apparatus (parts of line and equipment controller)	853810x	8538.10.00	Ch. 7
396	Parts of apparatus of heading 8535, 8536, 8537 other than boards, panels, consoles, desks, cabinets and other bases for the goods of heading No. 8537, not equipped with their apparatus including video switching apparatus	853890	8538.90.30 8538.90.40 8538.90.60 8538.90.80 8538.90.8040 8538.90.8080	Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7
397	Parts, including printed circuit assemblies, for products falling within ITA-II not already covered by ITA	853890x	8538.90.30 8538.90.40 8538.90.60 8538.90.80 8538.90.8040 8538.90.8080	Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7
398	Parts used in the manufacture of goods falling into ITA/ITA-II	853890x	8538.90.30 8538.90.40 8538.90.60 8538.90.80 8538.90.8040 8538.90.8080	Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7
399	Electrical filament or discharge lamps, including sealed beam lamp units and ultra-violet or infrared lamps; arc lamps; part thereof: other filament lamps, excluding ultraviolet or infrared lamps; tungsten halogen; other; of a power less than 500 w	8539214040x	8539.21.4040	Ch. 7
	Other parts, machinery, apparatus and other inputs used in the production of information technology products, including but not limited to:			
400	Air or vacuum pumps, air or other gas compressors and fans: ventilating or recycling hoods incorporating a fan whether or not fitted with filters; parts thereof; fans: other	8414	8414.10.00 8414.20.00 8414.30.40 8414.30.80 8414.40.00 8414.51.00 8414.59.30 8414.59.60 8414.60.00 8414.80.05 8414.80.15 8414.80.20 8414.80.90 8414.90.10 8414.90.30 8414.90.40 8414.90.90	Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
401	Vacuum pumps, including cryopumps, dry pumps, turbo pumps, diffusion pumps	841410	8414.10.00	Ch. 7
402	Other industrial or laboratory furnaces and ovens, except parts, not including furnaces and ovens for the roasting, milting or other heat treatment of ores, pyrites or of metals or bakery ovens	841780	8417.80.00	Ch. 4
403	Other dryers including those used in production of inkjet marking assemblies	8419390080x	Withdrawn	Appen. F
	Other parts, machinery, apparatus and other inputs used in the production of information technology products, including but not limited to (continued):			
404	Other machinery, plant or equipment including horizontal wet processing equipment; machinery for the treatment of materials by a process involving a change in temperature; used in product of inkjet marking assemblies	8419899085x		
	Other machinery, plant or equipment including horizontal wet processing equipment		8419.89.9080 8419.89.9085 8424.89.7090 8479.89.9797	Ch. 4 Ch. 4 Ch. 4 Ch. 4
	Machinery for the treatment of materials by a process involving a change in temperature; used in product of Inkjet Marking Assemblies		Withdrawn	Appen. F
405	Other parts of other machinery, plant or laboratory equipment including of Dryers used in production of inkjet marking assemblies	8419908080x	Withdrawn	Appen. F
406	Parts of filtering or purging machinery and apparatus for liquids or gases	842199	8421.99.0040	Ch. 4
407	Water treatment systems and apparatus for the production of semiconductors	8421x	8421.21.00	Ch. 4
408	Labelling Machines for production of Inkjet Marking Assemblies	8422309020x	Withdrawn	Appen. F
409	Filling Machinery for production of Inkjet Marking Assemblies	8422309040x	Withdrawn	Appen. F
410	Sealing machines used in production of Inkjet Marking Assemblies	8422309060x	Withdrawn	Appen. F
411	(Other) machines for filling, sealing, or labeling, used in production of Inkjet Marking Assemblies	8422309090x	Withdrawn	Appen. F
412	Parts of machines for filling, sealing, or labeling used in production of Inkjet Marking Assemblies	8422909095x	Withdrawn	Appen. F
413	Solder Paste Etching Machine	8422x	Withdrawn	Appen. F
414	Paper Masking Machine	8422x	Unknown	Appen. F
415	Scales for continuous weighing on conveyors used in production of Inkjet Marking Assemblies	842320x	Withdrawn	Appen. F
416	Mechanical appliances for dispersing of spraying; used in production of Inkjet Marking Assemblies	8424897090x	Withdrawn	Appen. F
417	Parts of mechanical appliances for dispersing of spraying; used in production of Inkjet Marking Assemblies	8424908085x	Withdrawn	Appen. F
418	Suction nozzle tip	84249080x	8424.90.8085	Ch. 7
419	Automatic resin mixer-doser; hot air solder leveling equipment; capacitor assembly machines; sorting pre-flattening machines	8424x		
	Automatic resin mixer-doser		Unknown	Appen. F
	Hot air solder leveling equipment		8479.89.9797	Ch. 4
	Capacitor assembly machines		Unknown	Appen. F
	Sorting pre-flattening machines		Unknown	Appen. F
420	Other cont.-action elevators and conveyors for goods and materials: used in production of Inkjet Marking Assemblies	8428398000x	Withdrawn	Appen. F
421	Industrial Robots for lifting, handling, loading, unloading for production of Inkjet Marking Assemblies	8428908015x	Withdrawn	Appen. F

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
422	Parts of Elevators and Conveyors used in production of Inkjet Marking Assemblies	8431398015x	Withdrawn	Appen. F
423	Parts in Industrial Robots for lifting, handling, loading, unloading for production of Inkjet Marking Assemblies	8431398085x	Withdrawn	Appen. F
424	PCLM Panelmark/Cover Marker/Auto Backside Ink Mark System for IT Products	844230x	8442.30.00	Ch. 4
	Other parts, machinery, apparatus and other inputs used in the production of information technology products, including but not limited to (continued):			
425	Digital Proofers Digital half-tone color proofing device	844351x	8443.51.50 8443.59.50	Ch. 4 Ch. 4
426	Coating Equipment for Photosensitive Liquids (screen printing),	84435950x	8443.59.50	Ch. 4
427	Parts of ink-jet printing machines	84439050x	8443.90.50	Ch. 5
428	Laser marking machine for IC's, PCBA's, cartridges and other encapsulating packages	84561010x	8456.10.10 8456.10.80	Ch. 4 Ch. 4
429	Machines Tools for the removal of material operated by laser for production of Inkjet Marking Assemblies	84561080x	Withdrawn	Appen. F
430	Laser Drills	84569910x	8456.10.10	Ch. 4
431	Machining centres	845710	8457.10.00	Ch. 7
432	Horizontal lathes for removing metal, not numerically controlled	845819	8458.19.00	Ch. 7
433	Drill Bits and Other Cutting Tools	845940x	8207.30.30 8207.40.30 8207.40.60 8207.50.2055 8207.50.2080 8207.50.40 8207.60.00 8207.70.60 8207.90.30 8207.90.45 8207.90.60 8207.90.75 8208.10.00	Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7
434	Milling machines, knee type, for removing metal, not numerically controlled	845959	8459.59.00	Ch. 7
435	Other milling machines for production of Inkjet Marking Assemblies	8459610080x	Withdrawn	Appen. F
436	Other threading or tapping machines	845970	8459.70.40 8459.70.80	Ch. 7 Ch. 7
437	Flat surface grinding machines, not numerically controlled	846019	8460.19.00	Ch. 7
438	Cleaning Machines/Surface Preparation	8460908080x	8460.90.40 8460.90.80	Ch. 7 Ch. 7
439	Edge Finishing Machine	846090x	8460.90.40 8460.90.80	Ch. 7 Ch. 7
440	Sawing or cutting off machines for removing metal	846150	8461.50.40 8461.50.80	Ch. 7 Ch. 7
441	Forging or die-stamping machines (including presses) and hammers for removing metal	846210	8462.10.00	Ch. 7
442	Machine tools for working metal; for production of Inkjet Marking Assemblies	8462218085x	Withdrawn	Appen. F
443	Bending, folding, straightening or flattening machines (including presses) for working metal, not numerically controlled	846229	8462.29.80	Ch. 7

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
444	Hydraulic presses for working metal	846291	8462.91.40 8462.91.80	Ch. 7 Ch. 7
445	Pneumatic presses for production of information technology equipment	8464x	8462.99.40 8462.99.80 8464.90.90 8465.99.8095	Ch. 7 Ch. 7 Ch. 7 Ch. 4
446	Depanel machines for separating substrates	8464x	8465.99.8095	Ch. 4
	Other parts, machinery, apparatus and other inputs used in the production of information technology products, including but not limited to (continued):			
447	Scoring Machines (Sawing), including equipment to separate individual substrates from panel (multipack form)	84659190x	8465.91.0090	Ch. 4
448	CNC Routing Machine	8465920090x	8465.92.0090	Ch. 4
449	Bending or Assembling Machines for production of Inkjet Marking Assemblies	8465940090x	Withdrawn	Appen. F
450	CNC Drilling and Routing Machine	8465950090x	8465.95.0090	Ch. 4
451	Scoring Machines (Cutting), Depanelization Equipment	846599x	8465.99.8095	Ch. 4
452	Registration Systems (used for punching a PWB or inner layer)	846599x	8465.99.8095 8477.80.00	Ch. 4 Ch. 4
453	Parts of Bending or Assembling Machines for production of Inkjet Marking Assemblies	8466925090x	Withdrawn	Appen. F
454	Parts of amchine tools for the removal of material operated by laser for production of Inkjet Marking Assembles	8466939585x	Withdrawn	Appen. F
455	Laser machine parts	846693x	8466.93.9585	Ch. 4
456	Parts and accessories suitable for use solely or principally with the machines of headings no.8462 or 8463	846694	8466.94.65 8466.94.85	Ch. 7 Ch. 7
457	Parts of machine tools for working metal for production of Inkjet Marking Assemblies	8466948585x	Withdrawn	Appen. F
458	Hot Air Soldering Leveling HASL Equipment/Paste Printer	846880x		
	Hot Air Soldering Leveling HASL Equipment		8479.89.9797	Ch. 4
	Paste Printer		8443.59.50	Ch. 4
459	Registration Systems (for punching film and for punching prereg)	847780x	8465.99.8095 8477.80.00	Ch. 4 Ch. 4
460	Vacuum Frames	847790x	8477.90.85	Ch. 4
461	Industrial robots not elsewhere specified including component placement machines, machines that automatically sockets cartidges, load packages into magazines, automatically load magazine duct into Seal Furnace, unload sealed units and turn components or assemblies over in the trays.	847950	Unknown	Appen. F
462	Other machines and mechanical appliances for treating metal, including electric wire coil-winders	847981	8479.81.00	Ch. 4
463	Machines and mechanical appl. not spec. or incl. elsewhere for production of Inkjet Marking Assemblies	8479899797x	Withdrawn	Appen. F
464	All surface mount "pick and place" equipment.	847989x	8428.20.80 8428.33.80 8428.39.80 8428.90.80 8479.89.9797	Ch. 4 Ch. 4 Ch. 4 Ch. 4 Ch. 4

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
465	Apparatus for placement of components or contact element on semiconductor materials, printed circuit boards or printed wiring boards, ceramic substrates or other substrate materials	847989x	8428.20.80 8428.33.80 8428.39.80 8428.90.80 8479.89.9797	Ch. 4 Ch. 4 Ch. 4 Ch. 4 Ch. 4
466	Machines to dispense thermal grease onto the processor	847989x	8479.89.9797	Ch. 4
467	Other parts of machines and mechanical appliances	84799097	8479.90.97	Ch. 4
468	Parts of Machines and mechanical appl. not spec. or incl. elsewhere for production of Inkjet Marking Assemblies	847990x	Withdrawn	Appen. F
	Other parts, machinery, apparatus and other inputs used in the production of information technology products, including but not limited to (continued):			
469	Metal disks for winding machines; heating elements; winding needles, injection needles, clinchers (stamp plate)	847990x	8479.90.97	Ch. 4
470	Mould bases	848020	8480.20.00	Ch. 7
471	Moulds for metal or metal carbides, injection or compression types	848041	8480.41.00	Ch. 7
472	Valves with hydraulic actuators	84818090x	8481.80.90	Ch. 7
473	Solenoid valves, taps, cocks and valves, other solenoid valves	84818090x	8481.80.9005	Ch. 7
474	Valves with pneumatic actuators	84818090x	8481.80.9035 8481.80.9040	Ch. 7 Ch. 7
475	Other chain sprockets and parts thereof, not forged	8483901050	8483.90.1050	Ch. 7
476	Rapid Thermal Processors	851410x	8514.10.80 8514.30.20	Ch. 4 Ch. 4
477	Seal Furnace for I/C+s and IC Cartridges	851420x	8514.20.80	Ch. 4
478	Other furnaces and ovens	85143080	8514.30.80	Ch. 4
479	Other industrial furnaces; Solder Reflow Ovens IR:Temperature Cycle Chamber	851430x	8514.20.80 8514.30.80	Ch. 4 Ch. 4
480	Wave Soldering Equipment	851519x	8515.19.00	Ch. 4
481	Fully or partly automatic machines and apparatus for resistance welding of metal	851521	8515.21.00	Ch. 7
482	Electric, laser, ultrasonic, etc. brazing or welding machines not elsewhere specified or included; electric machines for hot spraying of metals or sintered metal carbides	851580	8515.80.8085	Ch. 7
483	Ultrasonic Welding Machines for production of Inkjet Marking Assemblies	8515808045x	Withdrawn	Appen. F
484	Other soldering, brazing or welding machines for production of Inkjet Marking Assemblies	8515808085x	Withdrawn	Appen. F
485	Parts for electric laser, ultrasonic etc. welding etc. machines, parts for electric machines for hot spraying of metals of sintered metal carbides	851590	8515.90.30 8515.90.40	Ch. 7 Ch. 4
486	Parts of Ultrasonic Welding Machines for production of Inkjet Marking Assemblies	85159030x	Withdrawn	Appen. F
487	Parts of other solder, brazing or welding machines for production of Inkjet Marking Assemblies	85159040x	Withdrawn	Appen. F
488	Machines and apparatus for electroplating electrolysis or electrophoresis, including CNC and Non-CNC Vertical Processing Machines; Plating line	854330	8543.30.00	Ch. 4
489	Microwave amplifiers	85438980	8543.89.80	Ch. 5

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USTR's list of potential products for the ITA-II process, by reference number, with probable *HTS* classification and chapter number

Ref. No.	Product	USTR's indicative <i>HTS</i> heading	Probable <i>HTS</i> classification	Chapter No.
490	Computer-based Products Specific to Video and Audio Data Processing, including Optical amplifiers, Anechoic chamber kit, parts and assessories for measuing form Em>C. (counter measure for noise reduction)	854389x		
	Computer-based Products Specific to Video and Audio Data Processing		8543.89.9695	Ch. 2
	Optical amplifiers		9013.80.90	Ch. 5
	Anechoic chamber kit		9030.90.8840 9030.90.8860	Ch. 3 Ch. 3
	Parts and assessories for measuing form Em>C. (counter measure for noise reduction)		Unknown	Appen. F

USTR's list of potential products for the ITA-II process, by reference number, with probable *HTS* classification and chapter number

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
	Optical and photographic instruments and apparatus, parts and accessories, including but not limited to:			
498	Optical fibers, optical fiber bundles and cables	900110x	9001.10.00	Ch. 5
499	Lenses for telecommunications equipment	900219x	9002.11.60 9002.19.00 9002.90.85 9002.90.95	Ch. 2 Ch. 4 Ch. 2 Ch. 5
500	Optical units for photocopying apparatus	900290x	Unknown	Appen. F
	Optical and photographic instruments and apparatus, parts and accessories, including but not limited to (continued):			
501	Lenses, prisms, mirrors and other optical elements, of any material, mounted, being parts of or fittings for instruments or apparatus, other than such elements of glass not optically worked; parts and accessories thereof; other	90029095	9002.90.95	Ch. 5
502	Image link Microimagers (High volume rotary microfilmers)	900620x	9006.20.00	Ch. 3
503	Advanced Photo System Cameras Hybrid film/digital camera	900652x	9006.51.0060 9006.52.30 9006.52.50 9006.52.9060 9006.52.9080	Ch. 3 Ch. 3 Ch. 3 Ch. 3 Ch. 3
504	Digital Camera (Fixed Focus)	90065940x	ITA-1	Appen. F
505	Digital Camera (Other than fixed focus)	90065990x	ITA-1	Appen. F
506	Microprocessor-Controlled Projectors	900810x	Withdrawn	Appen. F
507	Electrostatic photocopying apparatus: operating by reproducing the original image via an intermediate onto the copy (indirect process)	900912	9009.12.00	Ch. 3
508	Other photocopying apparatus of the contact type	900922	9009.22.00	Ch. 3
509	Thermo-copying apparatus	900930	9009.30.00	Ch. 3
510	Apparatus and equipment for photographic laboratories not specified or included elsewhere in this chapter; negatoscopes; projection screens, parts and accessories thereof, including Advanced Photo System Mini-labs Point-of Sale hybrid film digital imaging system processing eqpt., exposure equipment for photosensitive materials, CNC direct imaging systems, motion imaging workstations, still imaging workstations, graphic arts proofing workstations, digital optical recording systems and media, color proofing workstations, copy print, film transfer machine parts, curing system for solder mask, film digitizers (parts and accessories)	9010		
	Advanced Photo System Mini-labs Point-of Sale hybrid film digital imaging processing equipment		9010.10.00	Ch. 3
	Part and accessories of Advanced Photo System Mini-labs Point-of Sale hybrid film digital imaging processing equipment		9010.90.90	Ch. 3
	Exposure equipment for photosensitive materials		Unknown	Appen. F
	Parts and accessories of exposure equipment for photosensitive materials		Unknown	Appen. F
	CNC direct imaging systems		ITA-1	Appen. F
	Motion imaging work stations		9010.50.30	Ch. 3
	Parts and accessories of CNC direct imaging systems		9010.90.90	Ch. 4
	Parts and accessories of motion imaging work stations		9010.90.40 9010.90.90	Ch. 3 Ch. 3
	Still imaging work stations		Unknown	Appen. F
	Parts and accessories of still imaging work stations		Unknown	Appen. F

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
	Optical and photographic instruments and apparatus, parts and accessories, including but not limited to (continued):			
510	Graphic arts proofing workstations		Unknown	Appen. F
	Parts and accessories of graphic arts proofing workstations		Unknown	Appen. F
	Digital optical recording systems		ITA-1	Appen. F
	Parts and accessories of digital optical recording systems		ITA-1	Appen. F
	Color proofing workstations		Unknown	Appen. F
	Parts and accessories of color proofing workstations		Unknown	Appen. F
	Copy print		ITA-1	Appen. F
	Parts and accessories of copy print		9010.90.90	Ch. 3
	Film transfer machine		8525.40.8085	Ch. 2
	Parts and accessories of film transfer machine		8529.90.24 8529.90.77 8529.90.87	Ch. 2 Ch. 2 Ch. 2
	Curing system for solder mask		Unknown	Appen. F
	Parts and accessories of curing system for solder mask		Unknown	Appen. F
	Film digitizers		Unknown	Appen. F
	Parts and accessories of film digitizers		Unknown	Appen. F
511	Compound optical microscopes, including those for photomicrography, cinemicrography or microprojection; parts and accessories thereof	9011	9011.10.40 9011.10.80 9011.20.40 9011.20.80 9011.80.00 9011.90.00	Ch. 3 Ch. 3 Ch. 3 Ch. 3 Ch. 3 Ch. 3
512	Electron microscopes	901210x	9012.10.00	Ch. 3
513	Electron microscope parts and accessories	901290x	9012.90.00	Ch. 3
514	Liquid crystal devices consisting of a liquid crystal layer sandwiched between two sheets or plates of glass or plastic, whether or not fitted with electrical connections, other than Flat Panel Displays provided for in headings 8471 or 8531 and excluding uu*.; and parts	9013x	9013.80.90 9013.90.90	Ch. 5 Ch. 5
515	Other devices, appliances and instruments, specifically fiber-optic isolators and integrated optical switches (photonic opto-chips)	901380x		
	Fiber-optic isolators		Unknown	Appen. F
	Integrated optical switches (photonic opto-chips)		9013.80.90	Ch. 5
	Instruments, apparatus and testing equipment including but not limited to:			
516	Dynamic navigation positioning systems and autopilots for ships and drilling platforms	901410x	9014.10.70 9014.80.40	Ch. 3 Ch. 3
517	Fully computerized Airport Surveillance Tactical Display Systems, integrating charts, radar, information and tactical information	901420x	8526.10.0040	Ch. 3
518	Echo sounding instruments and ultra sonic sounding or detecting equipment, including vessel bridge instrumentation systems and computerized echo sounders and under water navigation systems	901480x	9014.80.20 9014.80.40	Ch. 3 Ch. 3
519	Parts and accessories of items described in 9014.10x-9014.80x	901490x	9014.90.40 9014.90.60	Ch. 3 Ch. 3

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USTR's list of potential products for the ITA-II process, by reference number, with probable HTS classification and chapter number

Ref. No.	Product	USTR's indicative HTS heading	Probable HTS classification	Chapter No.
	Instruments, apparatus and testing equipment including but not limited to (continued):			
520	Instruments and appliances used in medical, surgical, dental or veterinary sciences...; and parts and accessories thereof	9018	9018.19.40 9018.19.55 9018.19.75 9018.19.95	Ch. 3 Ch. 3 Ch. 3 Ch. 3
521	Apparatus based on the use of x-rays or of alpha, beta or gamma radiations...; including computed radiography systems, digital radiographic imaging systems, energy dispersive microanalysis, other x-ray machines, medical digital interface (converts digital data between modalities); and parts and accessories	9022	9022.14.00 9022.90.60	Ch. 3 Ch. 3
522	Simulator systems, specifically ship bridge simulators, marine process simulators and offshore process simulators	9023x	9023.00.00	Ch. 3
523	Other material testing equipment used in production of Inkjet Marking Assemblies	902480x	Withdrawn	Appen. F
524	Parts of other material testing equipment used in production of Inkjet marking assemblies	902490x	Withdrawn	Appen. F
525	Gas or smoke analysis apparatus	902710	9027.10.20 9027.10.40 9027.10.60	Ch. 3 Ch. 3 Ch. 3
526	Exposure meters	902740	9027.40.00	Ch. 3
527	Microtomes	90279020	9027.90.20	Ch. 3
528	Parts and Accessories of Articles of subheading 9027.10, 9027.40 and 9027.90.20	902790x	9027.90.5440 9027.90.58 9027.90.68 9027.90.88	Ch. 3 Ch. 3 Ch. 3 Ch. 3
529	Instruments and Apparatus for Measuring and Detecting Ionizing Radiation	903010	9030.10.00	Ch. 3
530	Cathode Ray Oscilloscopes and Cathode Ray Oscillographs	903020	9030.20.00	Ch. 3
531	Multimeters, without a recording device, including digital	903031	9030.31.00	Ch. 3
532	Instruments and apparatus for measuring or checking voltage, current resistance or power, without a recording device, excluding multimeters, neosi including Digital Circuit Testers, signal analyzers, spectrum analyzers/Automatic Parametric Tester, other instruments for measuring/checking pressure used in production of Inkjet Marking Assemblies, pull testers	903039		
	Instruments and apparatus for measuring or checking voltage, current resistance or power, without a recording device, excluding multimeters, neosi including Digital Circuit Testers, signal analyzers, spectrum analyzers/Automatic Parametric Tester, pull testers		9030.39.00	Ch. 3
	Other instruments for measuring/checking pressure used in production of Inkjet Marking Assemblies		Withdrawn	Appen. F
533	Other instruments and apparatus, with a recording device, including in Circuit Test Equipment; Electrical BarBoard Testers; Automatic Optical Inspection Equipment; cable testers-metallic	903083	9030.83.00	Ch. 3
534	Other instruments and apparatus without a recording device (including ATM/Broadband Test System, ATM Service Module, Telecom/Datacom...etc.)	903089	9030.89.00	Ch. 3
535	Parts and Accessories	903090	9030.90.25 9030.90.45 9030.90.68 9030.90.88	Ch. 3 Ch. 3 Ch. 3 Ch. 3

Table D-1

USTR's list of potential products for the ITA-II process, by reference number, with probable *HTS* classification and chapter number

Ref. No.	Product	USTR's indicative <i>HTS</i> heading	Probable <i>HTS</i> classification	Chapter No.
	Instruments, apparatus and testing equipment including but not limited to (<i>continued</i>):			
536	Measuring or checking instruments, appliances and machines, not specified or included elsewhere in this chapter; profile projectors; parts and accessories thereof not currently included in ITA	9031x	9031.10.00 9031.20.00 9031.30.00 9031.49.40 9031.49.90 9031.80.80	Ch. 3 Ch. 3 Ch. 3 Ch. 3 Ch. 3 Ch. 3
537	Automatic regulating or controlling instruments and apparatus; parts and accessories	9032	9032.10.00 9032.20.00 9032.81.00 9032.89.20 9032.89.40 9032.89.60 9032.90.20 9032.90.40 9032.90.60	Ch. 3 Ch. 3 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 7 Ch. 3
538	Auto Chief and Data Chief: fully computerized ships engine control, alarm and surveillance systems; parts and accessories thereof	9032x	9032.89.6085 9032.90.6080	Ch. 7 Ch. 3
539	Parts for semiconductor production equipment	9033x	9033.00.00	Ch. 7
	Other products:			
540	Virtual reality equipment such as head-mounted display, cyber glove, 3D trackball	uncertain	ITA-1	Appen. F

Table D-2

Potential products for the ITA-II process, by probable *HTS* classification and chapter number

Ref. No.	Probable <i>HTS</i> classification	Chapter	Ref. No.	Probable <i>HTS</i> classification	Chapter
1	2615.90.6060	Ch. 6	55	3907.30.00	Ch. 6
22	2804.80.00	Ch. 6	38	3919.10.20	Ch. 6
23	2812.10.5010	Ch. 6	39	3919.10.20	Ch. 6
7	2821.10.0050	Ch. 6	57	3919.90.5060	Ch. 6
8	2825.90.90	Ch. 6	58	3919.90.5060	Ch. 6
10	2843.21.00	Ch. 6	40	3920.20.00	Ch. 6
10	2843.29.00	Ch. 6	41	3920.61.00	Ch. 6
11	2849.90.50	Ch. 6	42	3920.62.00	Ch. 6
12	2917.12.20	Ch. 6	42	3920.69.00	Ch. 6
24	2920.90.50	Ch. 6	43	3920.69.00	Ch. 6
24	2931.00.9010	Ch. 6	43	3920.99.20	Ch. 6
13	3206.49.10	Ch. 6	44	3920.99.20	Ch. 6
13	3206.49.20	Ch. 6	45	3920.99.20	Ch. 6
13	3206.49.30	Ch. 6	62	3920.99.20	Ch. 6
13	3206.49.50	Ch. 6	47	3921.90.4090	Ch. 6
14	3211.00.00	Ch. 6	59	3921.90.4090	Ch. 6
15	3215.90.50	Ch. 5	63	3923.10.00	Ch. 5
25	3215.90.50	Ch. 5	48	3923.30.0090	Ch. 7
16	3402.90.10	Ch. 7	36	3923.90.00	Ch. 5
16	3402.90.30	Ch. 7	37	3923.90.00	Ch. 5
16	3402.90.50	Ch. 7	50	3923.90.00	Ch. 5
17	3501.90.20	Ch. 7	51	3923.90.00	Ch. 5
2	3701.10.0030	Ch. 3	61	3923.90.00	Ch. 5
26	3701.99.30	Ch. 5	46	3926.90.9880	Ch. 7
3	3702.10.0030	Ch. 3	49	3926.90.9880	Ch. 7
29	3702.42.00	Ch. 5	52	3926.90.9880	Ch. 7
29	3702.43.00	Ch. 5	53	4016.93.50	Ch. 7
29	3702.44.0060	Ch. 5	54	4016.99.15	Ch. 7
27	3702.95.00	Ch. 5	64	4804.31.10	Ch. 6
28	3702.95.00	Ch. 5	65	4804.31.20	Ch. 6
30	3705.90.00	Ch. 5	66	4804.39.20	Ch. 6
34	3706.10.30	Ch. 2	68	4805.60.20	Ch. 6
34	3706.10.60	Ch. 2	70	4823.11.00	Ch. 7
31	3707.90.3290	Ch. 6	71	4823.19.00	Ch. 7
18	3810.10.00	Ch. 6	72	4823.90.65	Ch. 7
32	3810.10.00	Ch. 6	73	4823.90.65	Ch. 7
19	3810.90.10	Ch. 6	74	4823.90.65	Ch. 7
33	3810.90.10	Ch. 6	72	4823.90.85	Ch. 7
19	3810.90.20	Ch. 6	73	4823.90.85	Ch. 7
33	3810.90.20	Ch. 6	74	4823.90.85	Ch. 7
19	3810.90.50	Ch. 6	75	7002.20.10	Ch. 6
33	3810.90.50	Ch. 6	76	7002.31.00	Ch. 6
20	3814.00.10	Ch. 6	77	7006.00.4050	Ch. 6
20	3814.00.20	Ch. 6	83	7011.20.10	Ch. 2
20	3814.00.50	Ch. 6	83	7011.20.80	Ch. 2
35	3907.30.00	Ch. 6	78	7014.00.10	Ch. 5
79	7014.00.20	Ch. 5	433	8207.90.30	Ch. 7

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Potential products for the ITA-II process, by probable HTS classification and chapter number

Ref. No.	Probable HTS classification	Chapter	Ref. No.	Probable HTS classification	Chapter
81	7017.10.60	Ch. 6	433	8207.90.45	Ch. 7
82	7020.00.60	Ch. 5	433	8207.90.60	Ch. 7
85	7106.92.50	Ch. 6	433	8207.90.75	Ch. 7
84	7108.13.70	Ch. 6	118	8207.90.7530	Ch. 7
89	7318.15.2010	Ch. 7	102	8208.10.00	Ch. 7
89	7318.15.6030	Ch. 7	106	8208.10.00	Ch. 7
91	7408.19.00	Ch. 6	433	8208.10.00	Ch. 7
86	7408.22.50	Ch. 6	106	8208.90.60	Ch. 7
93	7409.21.0090	Ch. 6	116	8303.00.00	Ch. 7
80	7410.21.30	Ch. 6	98	8311.30.30	Ch. 6
110	7410.21.30	Ch. 6	108	8311.30.30	Ch. 6
87	7419.99.5050	Ch. 6	98	8311.30.60	Ch. 6
87	7508.90.50	Ch. 6	108	8311.30.60	Ch. 6
94	7605.19.00	Ch. 6	400	8414.10.00	Ch. 7
94	7606.11.3060	Ch. 6	401	8414.10.00	Ch. 7
94	7607.11.30	Ch. 6	400	8414.20.00	Ch. 7
111	7607.11.30	Ch. 6	400	8414.30.40	Ch. 7
94	7607.11.60	Ch. 6	400	8414.30.80	Ch. 7
112	7607.11.60	Ch. 6	400	8414.40.00	Ch. 7
94	7607.11.9090	Ch. 6	400	8414.51.00	Ch. 7
95	7607.19.10	Ch. 6	400	8414.59.30	Ch. 7
95	7607.19.60	Ch. 6	400	8414.59.60	Ch. 7
96	7616.10.30	Ch. 5	400	8414.60.00	Ch. 7
96	7616.10.7030	Ch. 7	400	8414.80.05	Ch. 7
96	7616.10.9030	Ch. 5	400	8414.80.15	Ch. 7
96	7616.10.9090	Ch. 5	400	8414.80.20	Ch. 7
87	7616.99.5090	Ch. 5	400	8414.80.90	Ch. 7
113	7616.99.5090	Ch. 5	400	8414.90.10	Ch. 7
114	7904.00.00	Ch. 6	400	8414.90.30	Ch. 7
99	8003.00.00	Ch. 6	400	8414.90.40	Ch. 7
115	8005.00.10	Ch. 6	400	8414.90.90	Ch. 7
100	8103.10.6030	Ch. 6	402	8417.80.00	Ch. 4
101	8103.90.00	Ch. 6	153	8419.39.0080	Ch. 4
433	8207.30.30	Ch. 7	404	8419.89.9080	Ch. 4
433	8207.40.30	Ch. 7	153	8419.89.9085	Ch. 4
433	8207.40.60	Ch. 7	404	8419.89.9085	Ch. 4
104	8207.50.20	Ch. 7	152	8420.10.9080	Ch. 4
433	8207.50.2055	Ch. 7	191	8421.19.90	Ch. 4
433	8207.50.2080	Ch. 7	407	8421.21.00	Ch. 4
104	8207.50.40	Ch. 7	192	8421.91.90	Ch. 4
433	8207.50.40	Ch. 7	406	8421.99.0040	Ch. 4
117	8207.50.4030	Ch. 7	121	8424.89.7090	Ch. 4
104	8207.50.60	Ch. 7	122	8424.89.7090	Ch. 4
433	8207.60.00	Ch. 7	123	8424.89.7090	Ch. 4
433	8207.70.60	Ch. 7	124	8424.89.7090	Ch. 4
125	8424.89.7090	Ch. 4	438	8460.90.40	Ch. 7
126	8424.89.7090	Ch. 4	439	8460.90.40	Ch. 7

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Potential products for the ITA-II process, by probable HTS classification and chapter number

Ref. No.	Probable HTS classification	Chapter	Ref. No.	Probable HTS classification	Chapter
152	8424.89.7090	Ch. 4	438	8460.90.80	Ch. 7
171	8424.89.7090	Ch. 4	439	8460.90.80	Ch. 7
174	8424.89.7090	Ch. 4	440	8461.50.40	Ch. 7
404	8424.89.7090	Ch. 4	440	8461.50.80	Ch. 7
127	8424.90.8085	Ch. 4	441	8462.10.00	Ch. 7
128	8424.90.8085	Ch. 4	443	8462.29.80	Ch. 7
175	8424.90.8085	Ch. 4	444	8462.91.40	Ch. 7
418	8424.90.8085	Ch. 7	444	8462.91.80	Ch. 7
464	8428.20.80	Ch. 4	445	8462.99.40	Ch. 7
465	8428.20.80	Ch. 4	445	8462.99.80	Ch. 7
129	8428.33.80	Ch. 4	445	8464.90.90	Ch. 7
464	8428.33.80	Ch. 4	138	8465.91.0090	Ch. 4
465	8428.33.80	Ch. 4	447	8465.91.0090	Ch. 4
129	8428.39.80	Ch. 4	140	8465.92.0090	Ch. 4
464	8428.39.80	Ch. 4	160	8465.92.0090	Ch. 4
465	8428.39.80	Ch. 4	448	8465.92.0090	Ch. 4
464	8428.90.80	Ch. 4	136	8465.95.0090	Ch. 4
465	8428.90.80	Ch. 4	139	8465.95.0090	Ch. 4
129	8428.90.8085	Ch. 4	450	8465.95.0090	Ch. 4
130	8431.39.8015	Ch. 4	138	8465.99.8095	Ch. 4
130	8431.39.8085	Ch. 4	140	8465.99.8095	Ch. 4
424	8442.30.00	Ch. 4	141	8465.99.8095	Ch. 4
425	8443.51.50	Ch. 4	145	8465.99.8095	Ch. 4
131	8443.59.50	Ch. 4	445	8465.99.8095	Ch. 4
132	8443.59.50	Ch. 4	446	8465.99.8095	Ch. 4
152	8443.59.50	Ch. 4	451	8465.99.8095	Ch. 4
425	8443.59.50	Ch. 4	452	8465.99.8095	Ch. 4
426	8443.59.50	Ch. 4	459	8465.99.8095	Ch. 4
458	8443.59.50	Ch. 4	143	8466.92.10	Ch. 4
427	8443.90.50	Ch. 5	143	8466.92.5090	Ch. 4
428	8456.10.10	Ch. 4	142	8466.93.5385	Ch. 4
430	8456.10.10	Ch. 4	194	8466.93.5385	Ch. 4
133	8456.10.80	Ch. 4	142	8466.93.9585	Ch. 4
428	8456.10.80	Ch. 4	455	8466.93.9585	Ch. 4
134	8456.99.90	Ch. 4	456	8466.94.65	Ch. 7
135	8456.99.90	Ch. 4	456	8466.94.85	Ch. 7
193	8456.99.90	Ch. 4	223	8470.90.00	Ch. 3
431	8457.10.00	Ch. 7	221	8472.10.00	Ch. 3
432	8458.19.00	Ch. 7	222	8472.10.00	Ch. 3
434	8459.59.00	Ch. 7	224	8472.90.9520	Ch. 3
436	8459.70.40	Ch. 7	223	8472.90.9550	Ch. 3
436	8459.70.80	Ch. 7	224	8472.90.9550	Ch. 3
437	8460.19.00	Ch. 7	225	8473.10.40	Ch. 3
137	8460.39.00	Ch. 7	225	8473.10.60	Ch. 3
225	8473.10.90	Ch. 3	120	8479.90.9785	Ch. 4
226	8473.40.95	Ch. 3	121	8479.90.9785	Ch. 4
227	8473.40.95	Ch. 3	161	8479.90.9785	Ch. 4

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Potential products for the ITA-II process, by probable HTS classification and chapter number

Ref. No.	Probable HTS classification	Chapter	Ref. No.	Probable HTS classification	Chapter
228	8473.40.95	Ch. 3	162	8479.90.9785	Ch. 4
229	8476.29.00	Ch. 5	163	8479.90.9785	Ch. 4
229	8476.89.00	Ch. 5	164	8479.90.9785	Ch. 4
122	8477.10.90	Ch. 4	175	8479.90.9785	Ch. 4
144	8477.59.80	Ch. 4	190	8479.90.9785	Ch. 4
145	8477.80.00	Ch. 4	470	8480.20.00	Ch. 7
146	8477.80.00	Ch. 4	471	8480.41.00	Ch. 7
202	8477.80.00	Ch. 4	472	8481.80.90	Ch. 7
452	8477.80.00	Ch. 4	473	8481.80.9005	Ch. 7
459	8477.80.00	Ch. 4	474	8481.80.9035	Ch. 7
460	8477.90.85	Ch. 4	474	8481.80.9040	Ch. 7
147	8477.90.8595	Ch. 4	475	8483.90.1050	Ch. 7
148	8477.90.8595	Ch. 4	336	8501.10.4020	Ch. 7
203	8479.81.00	Ch. 4	336	8501.10.4040	Ch. 7
462	8479.81.00	Ch. 4	338	8501.10.4040	Ch. 7
149	8479.82.0040	Ch. 4	336	8501.10.4060	Ch. 7
150	8479.82.0040	Ch. 4	338	8501.10.4060	Ch. 7
119	8479.89.9797	Ch. 4	336	8501.10.4080	Ch. 7
121	8479.89.9797	Ch. 4	338	8501.10.4080	Ch. 7
123	8479.89.9797	Ch. 4	337	8501.10.60	Ch. 7
124	8479.89.9797	Ch. 4	339	8501.20.20	Ch. 7
150	8479.89.9797	Ch. 4	340	8501.20.40	Ch. 7
151	8479.89.9797	Ch. 4	342	8501.31.20	Ch. 7
152	8479.89.9797	Ch. 4	341	8501.31.40	Ch. 7
153	8479.89.9797	Ch. 4	342	8501.31.40	Ch. 7
154	8479.89.9797	Ch. 4	342	8501.31.50	Ch. 7
155	8479.89.9797	Ch. 4	342	8501.31.60	Ch. 7
156	8479.89.9797	Ch. 4	343	8501.32.20	Ch. 7
158	8479.89.9797	Ch. 4	343	8501.32.55	Ch. 7
159	8479.89.9797	Ch. 4	344	8501.33.20	Ch. 7
174	8479.89.9797	Ch. 4	344	8501.33.30	Ch. 7
189	8479.89.9797	Ch. 4	344	8501.33.40	Ch. 7
195	8479.89.9797	Ch. 4	345	8501.34.30	Ch. 7
198	8479.89.9797	Ch. 4	346	8501.40.20	Ch. 7
404	8479.89.9797	Ch. 4	347	8501.51.4040	Ch. 7
419	8479.89.9797	Ch. 4	348	8501.52.40	Ch. 7
458	8479.89.9797	Ch. 4	348	8501.52.8040	Ch. 7
464	8479.89.9797	Ch. 4	349	8501.53.4080	Ch. 7
465	8479.89.9797	Ch. 4	349	8501.53.8040	Ch. 7
466	8479.89.9797	Ch. 4	349	8501.53.8060	Ch. 7
196	8479.90.97	Ch. 4	350	8502.40.00	Ch. 7
467	8479.90.97	Ch. 4	107	8503.00.9520	Ch. 7
469	8479.90.97	Ch. 4	351	8504.10.00	Ch. 5
352	8504.31.20	Ch. 5	370	8507.40.80	Ch. 7
354	8504.31.20	Ch. 5	370	8507.80.80	Ch. 5
352	8504.31.40	Ch. 5	372	8507.80.80	Ch. 5
354	8504.31.4035	Ch. 5	373	8507.90.40	Ch. 5

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Potential products for the ITA-II process, by probable HTS classification and chapter number

Ref. No.	Probable HTS classification	Chapter	Ref. No.	Probable HTS classification	Chapter
353	8504.31.4065	Ch. 5	370	8507.90.80	Ch. 5
354	8504.31.4065	Ch. 5	373	8507.90.80	Ch. 5
352	8504.31.60	Ch. 5	476	8514.10.80	Ch. 4
354	8504.31.60	Ch. 5	165	8514.20.80	Ch. 4
355	8504.32.00	Ch. 7	477	8514.20.80	Ch. 4
356	8504.33.0020	Ch. 7	479	8514.20.80	Ch. 4
356	8504.33.0040	Ch. 7	476	8514.30.20	Ch. 4
334	8504.40.40	Ch. 7	166	8514.30.80	Ch. 4
357	8504.40.40	Ch. 7	167	8514.30.80	Ch. 4
358	8504.40.9510	Ch. 7	478	8514.30.80	Ch. 4
359	8504.40.9510	Ch. 7	479	8514.30.80	Ch. 4
361	8504.40.9510	Ch. 7	168	8514.90.80	Ch. 4
358	8504.40.9520	Ch. 7	124	8515.19.00	Ch. 4
361	8504.40.9520	Ch. 7	169	8515.19.00	Ch. 4
358	8504.40.9530	Ch. 7	170	8515.19.00	Ch. 4
361	8504.40.9530	Ch. 7	480	8515.19.00	Ch. 4
358	8504.40.9540	Ch. 7	481	8515.21.00	Ch. 7
361	8504.40.9540	Ch. 7	482	8515.80.8085	Ch. 7
358	8504.40.9550	Ch. 7	485	8515.90.30	Ch. 7
362	8504.50.80	Ch. 7	173	8515.90.40	Ch. 4
363	8504.50.80	Ch. 5	485	8515.90.40	Ch. 4
364	8504.90.40	Ch. 5	230	8518.10.80	Ch. 2
358	8504.90.75	Ch. 5	231	8518.21.00	Ch. 2
364	8504.90.75	Ch. 5	236	8518.21.00	Ch. 2
364	8504.90.95	Ch. 5	232	8518.22.00	Ch. 2
358	8504.90.9550	Ch. 5	233	8518.29.80	Ch. 2
365	8505.11.00	Ch. 7	234	8518.30.20	Ch. 2
366	8505.11.00	Ch. 7	328	8518.30.20	Ch. 2
367	8505.19.00	Ch. 7	235	8518.40.20	Ch. 2
368	8505.90.80	Ch. 7	236	8518.40.20	Ch. 2
369	8506.10.00	Ch. 5	237	8518.50.00	Ch. 2
369	8506.30.10	Ch. 5	238	8518.90.40	Ch. 2
369	8506.30.50	Ch. 5	239	8518.90.40	Ch. 2
369	8506.40.10	Ch. 5	238	8518.90.80	Ch. 2
369	8506.40.50	Ch. 7	239	8518.90.80	Ch. 2
369	8506.50.00	Ch. 5	241	8519.21.00	Ch. 2
369	8506.60.00	Ch. 5	242	8519.29.00	Ch. 2
369	8506.80.00	Ch. 7	243	8519.31.00	Ch. 2
369	8506.90.00	Ch. 5	244	8519.39.00	Ch. 2
370	8507.20.80	Ch. 5	245	8519.40.00	Ch. 2
370	8507.30.80	Ch. 5	246	8519.92.00	Ch. 2
371	8507.30.80	Ch. 5	247	8519.93.40	Ch. 2
247	8519.93.80	Ch. 2	261	8525.30.9060	Ch. 2
248	8519.99.00	Ch. 2	275	8525.30.9060	Ch. 2
249	8519.99.0045	Ch. 2	276	8525.30.9060	Ch. 2
250	8520.10.00	Ch. 2	277	8525.30.9060	Ch. 2
251	8520.32.00	Ch. 2	278	8525.40.80	Ch. 2

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Potential products for the ITA-II process, by probable HTS classification and chapter number

Ref. No.	Probable HTS classification	Chapter	Ref. No.	Probable HTS classification	Chapter
252	8520.33.00	Ch. 2	279	8525.40.80	Ch. 2
253	8520.39.00	Ch. 2	510	8525.40.8085	Ch. 2
254	8520.90.00	Ch. 2	204	8526.10.00	Ch. 3
255	8521.10.30	Ch. 2	205	8526.10.0020	Ch. 3
255	8521.10.60	Ch. 2	205	8526.10.0040	Ch. 3
255	8521.10.90	Ch. 2	517	8526.10.0040	Ch. 3
256	8521.10.90	Ch. 2	204	8526.91.00	Ch. 3
257	8521.90.00	Ch. 2	206	8526.91.00	Ch. 3
258	8521.90.00	Ch. 2	204	8526.92.00	Ch. 3
259	8522.10.00	Ch. 2	280	8527.12.00	Ch. 2
260	8522.10.00	Ch. 2	281	8527.13.11	Ch. 2
259	8522.90.25	Ch. 2	281	8527.13.20	Ch. 2
262	8522.90.25	Ch. 2	281	8527.13.40	Ch. 2
259	8522.90.35	Ch. 2	282	8527.19.10	Ch. 2
262	8522.90.35	Ch. 2	282	8527.19.50	Ch. 2
259	8522.90.55	Ch. 2	283	8527.21.10	Ch. 2
262	8522.90.55	Ch. 2	283	8527.21.40	Ch. 2
263	8522.90.55	Ch. 2	285	8527.39.0020	Ch. 2
259	8522.90.65	Ch. 2	286	8528.12.04	Ch. 2
262	8522.90.65	Ch. 2	289	8528.12.04	Ch. 2
259	8522.90.75	Ch. 2	286	8528.12.08	Ch. 2
262	8522.90.75	Ch. 2	289	8528.12.08	Ch. 2
264	8523.30.00	Ch. 2	286	8528.12.12	Ch. 2
265	8524.10.00	Ch. 2	289	8528.12.12	Ch. 2
266	8524.32.00	Ch. 2	286	8528.12.16	Ch. 2
267	8524.39.80	Ch. 2	289	8528.12.16	Ch. 2
268	8524.51.10	Ch. 2	286	8528.12.20	Ch. 2
268	8524.51.30	Ch. 2	289	8528.12.20	Ch. 2
269	8524.52.10	Ch. 2	286	8528.12.24	Ch. 2
269	8524.52.20	Ch. 2	289	8528.12.24	Ch. 2
270	8524.53.10	Ch. 2	286	8528.12.28	Ch. 2
270	8524.53.20	Ch. 2	289	8528.12.28	Ch. 2
271	8524.60.00	Ch. 2	286	8528.12.32	Ch. 2
272	8524.99.90	Ch. 2	289	8528.12.32	Ch. 2
273	8525.10.30	Ch. 2	286	8528.12.36	Ch. 2
273	8525.10.70	Ch. 2	289	8528.12.36	Ch. 2
274	8525.30.60	Ch. 2	286	8528.12.40	Ch. 2
261	8525.30.9005	Ch. 2	289	8528.12.40	Ch. 2
275	8525.30.9005	Ch. 2	286	8528.12.44	Ch. 2
276	8525.30.9005	Ch. 2	289	8528.12.44	Ch. 2
277	8525.30.9005	Ch. 2	286	8528.12.48	Ch. 2
289	8528.12.48	Ch. 2	293	8528.30.10	Ch. 2
286	8528.12.52	Ch. 2	294	8528.30.10	Ch. 2
289	8528.12.52	Ch. 2	287	8528.30.20	Ch. 2
286	8528.12.56	Ch. 2	293	8528.30.20	Ch. 2
289	8528.12.56	Ch. 2	294	8528.30.20	Ch. 2
286	8528.12.62	Ch. 2	287	8528.30.30	Ch. 2

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Potential products for the ITA-II process, by probable HTS classification and chapter number

Ref. No.	Probable HTS classification	Chapter	Ref. No.	Probable HTS classification	Chapter
289	8528.12.62	Ch. 2	293	8528.30.30	Ch. 2
286	8528.12.64	Ch. 2	294	8528.30.30	Ch. 2
289	8528.12.64	Ch. 2	287	8528.30.40	Ch. 2
286	8528.12.68	Ch. 2	293	8528.30.40	Ch. 2
289	8528.12.68	Ch. 2	294	8528.30.40	Ch. 2
286	8528.12.72	Ch. 2	287	8528.30.50	Ch. 2
289	8528.12.72	Ch. 2	293	8528.30.50	Ch. 2
286	8528.12.76	Ch. 2	294	8528.30.50	Ch. 2
289	8528.12.76	Ch. 2	287	8528.30.60	Ch. 2
286	8528.12.80	Ch. 2	293	8528.30.60	Ch. 2
289	8528.12.80	Ch. 2	294	8528.30.60	Ch. 2
286	8528.12.84	Ch. 2	287	8528.30.62	Ch. 2
289	8528.12.84	Ch. 2	293	8528.30.62	Ch. 2
286	8528.12.96	Ch. 2	294	8528.30.62	Ch. 2
288	8528.12.96	Ch. 2	287	8528.30.64	Ch. 2
289	8528.12.96	Ch. 2	293	8528.30.64	Ch. 2
290	8528.13.00	Ch. 2	294	8528.30.64	Ch. 2
291	8528.21.05	Ch. 2	287	8528.30.66	Ch. 2
291	8528.21.10	Ch. 2	293	8528.30.66	Ch. 2
291	8528.21.16	Ch. 2	294	8528.30.66	Ch. 2
291	8528.21.19	Ch. 2	287	8528.30.68	Ch. 2
291	8528.21.24	Ch. 2	293	8528.30.68	Ch. 2
291	8528.21.29	Ch. 2	294	8528.30.68	Ch. 2
291	8528.21.34	Ch. 2	287	8528.30.72	Ch. 2
291	8528.21.39	Ch. 2	293	8528.30.72	Ch. 2
291	8528.21.41	Ch. 2	294	8528.30.72	Ch. 2
291	8528.21.42	Ch. 2	287	8528.30.78	Ch. 2
291	8528.21.44	Ch. 2	293	8528.30.78	Ch. 2
291	8528.21.49	Ch. 2	294	8528.30.78	Ch. 2
291	8528.21.51	Ch. 2	287	8528.30.90	Ch. 2
291	8528.21.52	Ch. 2	293	8528.30.90	Ch. 2
291	8528.21.55	Ch. 2	294	8528.30.90	Ch. 2
291	8528.21.60	Ch. 2	295	8529.10.20	Ch. 2
291	8528.21.65	Ch. 2	297	8529.10.2090	Ch. 2
291	8528.21.70	Ch. 2	295	8529.10.70	Ch. 3
291	8528.21.75	Ch. 2	297	8529.10.90	Ch. 3
291	8528.21.80	Ch. 2	304	8529.90.01	Ch. 2
291	8528.21.85	Ch. 2	493	8529.90.01	Ch. 2
292	8528.22.00	Ch. 2	304	8529.90.03	Ch. 2
287	8528.30.10	Ch. 2	493	8529.90.03	Ch. 2
304	8529.90.06	Ch. 2	510	8529.90.77	Ch. 2
493	8529.90.06	Ch. 2	301	8529.90.78	Ch. 2
301	8529.90.09	Ch. 2	304	8529.90.78	Ch. 2
304	8529.90.09	Ch. 2	493	8529.90.78	Ch. 2
493	8529.90.09	Ch. 2	301	8529.90.81	Ch. 2
304	8529.90.13	Ch. 2	304	8529.90.81	Ch. 2
493	8529.90.13	Ch. 2	493	8529.90.81	Ch. 2

Table D-2

Potential products for the ITA-II process, by probable HTS classification and chapter number

Ref. No.	Probable HTS classification	Chapter	Ref. No.	Probable HTS classification	Chapter
304	8529.90.16	Ch. 3	301	8529.90.83	Ch. 2
305	8529.90.16	Ch. 3	304	8529.90.83	Ch. 2
493	8529.90.16	Ch. 3	493	8529.90.83	Ch. 2
304	8529.90.19	Ch. 3	304	8529.90.87	Ch. 2
305	8529.90.19	Ch. 3	493	8529.90.87	Ch. 2
493	8529.90.19	Ch. 3	510	8529.90.87	Ch. 2
304	8529.90.24	Ch. 2	304	8529.90.88	Ch. 2
493	8529.90.24	Ch. 2	493	8529.90.88	Ch. 2
510	8529.90.24	Ch. 2	304	8529.90.89	Ch. 2
304	8529.90.26	Ch. 3	493	8529.90.89	Ch. 2
305	8529.90.26	Ch. 3	303	8529.90.93	Ch. 2
493	8529.90.26	Ch. 3	304	8529.90.93	Ch. 2
298	8529.90.29	Ch. 2	493	8529.90.93	Ch. 2
304	8529.90.29	Ch. 2	302	8529.90.9345	Ch. 2
493	8529.90.29	Ch. 2	304	8529.90.95	Ch. 3
304	8529.90.33	Ch. 2	305	8529.90.95	Ch. 3
493	8529.90.33	Ch. 2	493	8529.90.95	Ch. 3
304	8529.90.36	Ch. 2	304	8529.90.97	Ch. 3
493	8529.90.36	Ch. 2	305	8529.90.97	Ch. 3
304	8529.90.39	Ch. 2	493	8529.90.97	Ch. 3
493	8529.90.39	Ch. 2	309	8531.10.00	Ch. 3
304	8529.90.43	Ch. 2	306	8531.80.90	Ch. 7
493	8529.90.43	Ch. 2	309	8531.80.90	Ch. 7
304	8529.90.46	Ch. 2	308	8531.90.30	Ch. 3
493	8529.90.46	Ch. 2	309	8531.90.30	Ch. 3
304	8529.90.49	Ch. 2	308	8531.90.90	Ch. 3
493	8529.90.49	Ch. 2	309	8531.90.90	Ch. 3
299	8529.90.53	Ch. 2	375	8535.10.00	Ch. 7
304	8529.90.53	Ch. 2	376	8535.21.00	Ch. 7
493	8529.90.53	Ch. 2	377	8535.29.00	Ch. 7
301	8529.90.63	Ch. 2	378	8535.30.0080	Ch. 7
304	8529.90.63	Ch. 2	379	8535.40.00	Ch. 7
493	8529.90.63	Ch. 2	380	8535.90.40	Ch. 7
304	8529.90.69	Ch. 2	381	8535.90.80	Ch. 7
493	8529.90.69	Ch. 2	382	8536.10.00	Ch. 7
304	8529.90.73	Ch. 3	388	8536.10.00	Ch. 7
493	8529.90.73	Ch. 3	383	8536.20.00	Ch. 7
304	8529.90.77	Ch. 2	388	8536.20.00	Ch. 7
493	8529.90.77	Ch. 2	388	8536.30.40	Ch. 7
388	8536.30.80	Ch. 7	310	8540.11.24	Ch. 2
384	8536.41.00	Ch. 7	310	8540.11.28	Ch. 2
388	8536.41.00	Ch. 7	310	8540.11.30	Ch. 2
385	8536.49.00	Ch. 7	310	8540.11.44	Ch. 2
388	8536.49.00	Ch. 7	310	8540.11.48	Ch. 2
386	8536.50.40	Ch. 7	310	8540.11.50	Ch. 2
388	8536.50.40	Ch. 7	311	8540.12.10	Ch. 2
386	8536.50.90	Ch. 7	311	8540.12.50	Ch. 2

Table D-2

Potential products for the ITA-II process, by probable HTS classification and chapter number

Ref. No.	Probable HTS classification	Chapter	Ref. No.	Probable HTS classification	Chapter
388	8536.50.90	Ch. 7	312	8540.20.20	Ch. 2
388	8536.61.00	Ch. 7	312	8540.20.40	Ch. 2
209	8536.69.80	Ch. 7	313	8540.40.00	Ch. 2
388	8536.90.80	Ch. 7	314	8540.50.00	Ch. 2
389	8537.10.30	Ch. 7	315	8540.60.00	Ch. 2
389	8537.10.60	Ch. 7	316	8540.71.20	Ch. 7
393	8537.10.60	Ch. 7	316	8540.71.40	Ch. 5
389	8537.10.90	Ch. 7	317	8540.72.00	Ch. 5
390	8537.10.90	Ch. 7	318	8540.79.00	Ch. 5
391	8537.10.90	Ch. 7	319	8540.81.00	Ch. 5
392	8537.10.90	Ch. 7	320	8540.89.00	Ch. 5
393	8537.10.9060	Ch. 5	321	8540.91.15	Ch. 2
393	8537.10.9070	Ch. 5	322	8540.91.15	Ch. 2
394	8537.20.00	Ch. 7	321	8540.91.20	Ch. 2
395	8538.10.00	Ch. 7	324	8540.91.20	Ch. 2
396	8538.90.30	Ch. 7	321	8540.91.50	Ch. 2
397	8538.90.30	Ch. 7	323	8540.91.50	Ch. 2
398	8538.90.30	Ch. 7	324	8540.91.50	Ch. 2
396	8538.90.40	Ch. 7	325	8540.99.40	Ch. 5
397	8538.90.40	Ch. 7	325	8540.99.80	Ch. 5
398	8538.90.40	Ch. 7	171	8543.30.00	Ch. 4
210	8538.90.60	Ch. 7	174	8543.30.00	Ch. 4
396	8538.90.60	Ch. 7	488	8543.30.00	Ch. 4
397	8538.90.60	Ch. 7	489	8543.89.80	Ch. 5
398	8538.90.60	Ch. 7	493	8543.89.9660	Ch. 5
396	8538.90.80	Ch. 7	158	8543.89.9695	Ch. 5
397	8538.90.80	Ch. 7	307	8543.89.9695	Ch. 2
398	8538.90.80	Ch. 7	490	8543.89.9695	Ch. 5
210	8538.90.8040	Ch. 7	493	8543.89.9695	Ch. 5
396	8538.90.8040	Ch. 7	494	8543.90.15	Ch. 5
397	8538.90.8040	Ch. 7	495	8543.90.15	Ch. 5
398	8538.90.8040	Ch. 7	494	8543.90.35	Ch. 5
210	8538.90.8080	Ch. 7	495	8543.90.35	Ch. 5
396	8538.90.8080	Ch. 7	308	8543.90.68	Ch. 5
397	8538.90.8080	Ch. 7	494	8543.90.68	Ch. 5
398	8538.90.8080	Ch. 7	495	8543.90.68	Ch. 5
399	8539.21.4040	Ch. 7	308	8543.90.88	Ch. 7
310	8540.11.10	Ch. 2	494	8543.90.88	Ch. 7
495	8543.90.88	Ch. 7	179	9010.90.90	Ch. 4
211	8544.11.00	Ch. 7	510	9010.90.90	Ch. 3
211	8544.19.00	Ch. 7	510	9010.90.90	Ch. 4
211	8544.20.00	Ch. 5	511	9011.10.40	Ch. 3
212	8544.20.00	Ch. 5	511	9011.10.80	Ch. 3
211	8544.30.00	Ch. 7	511	9011.20.40	Ch. 3
211	8544.41.80	Ch. 5	511	9011.20.80	Ch. 3
213	8544.41.80	Ch. 5	511	9011.80.00	Ch. 3
211	8544.49.80	Ch. 5	511	9011.90.00	Ch. 3

Table D-2

Potential products for the ITA-II process, by probable HTS classification and chapter number

Ref. No.	Probable HTS classification	Chapter	Ref. No.	Probable HTS classification	Chapter
214	8544.49.80	Ch. 5	512	9012.10.00	Ch. 3
211	8544.51.90	Ch. 5	513	9012.90.00	Ch. 3
215	8544.51.90	Ch. 5	187	9013.80.90	Ch. 5
211	8544.59.20	Ch. 5	307	9013.80.90	Ch. 5
216	8544.59.20	Ch. 5	490	9013.80.90	Ch. 5
211	8544.59.40	Ch. 5	492	9013.80.90	Ch. 5
211	8544.60.20	Ch. 5	514	9013.80.90	Ch. 5
211	8544.60.40	Ch. 7	515	9013.80.90	Ch. 5
211	8544.60.60	Ch. 7	188	9013.90.90	Ch. 5
217	8546.10.00	Ch. 5	308	9013.90.90	Ch. 5
217	8546.20.00	Ch. 5	514	9013.90.90	Ch. 5
217	8546.90.00	Ch. 5	516	9014.10.70	Ch. 3
218	8547.10.80	Ch. 5	518	9014.80.20	Ch. 3
219	8547.20.00	Ch. 5	516	9014.80.40	Ch. 3
220	8547.90.0010	Ch. 5	518	9014.80.40	Ch. 3
496	8548.90.00	Ch. 5	519	9014.90.40	Ch. 3
497	8548.90.00	Ch. 5	519	9014.90.60	Ch. 3
207	8802.60.30	Ch. 3	520	9018.19.40	Ch. 3
208	8803.90.30	Ch. 3	520	9018.19.55	Ch. 3
498	9001.10.00	Ch. 5	520	9018.19.75	Ch. 3
499	9002.11.60	Ch. 2	520	9018.19.95	Ch. 3
499	9002.19.00	Ch. 4	521	9022.14.00	Ch. 3
499	9002.90.85	Ch. 2	181	9022.19.00	Ch. 4
499	9002.90.95	Ch. 5	521	9022.90.60	Ch. 3
501	9002.90.95	Ch. 5	522	9023.00.00	Ch. 3
502	9006.20.00	Ch. 3	525	9027.10.20	Ch. 3
503	9006.51.0060	Ch. 3	525	9027.10.40	Ch. 3
503	9006.52.30	Ch. 3	525	9027.10.60	Ch. 3
503	9006.52.50	Ch. 3	526	9027.40.00	Ch. 3
503	9006.52.9060	Ch. 3	527	9027.90.20	Ch. 3
503	9006.52.9080	Ch. 3	528	9027.90.5440	Ch. 3
507	9009.12.00	Ch. 3	528	9027.90.58	Ch. 3
508	9009.22.00	Ch. 3	528	9027.90.68	Ch. 3
509	9009.30.00	Ch. 3	528	9027.90.88	Ch. 3
510	9010.10.00	Ch. 3	529	9030.10.00	Ch. 3
510	9010.50.30	Ch. 3	530	9030.20.00	Ch. 3
510	9010.90.40	Ch. 3	531	9030.31.00	Ch. 3
182	9030.39.00	Ch. 4	331	9504.30.0060	Ch. 5
532	9030.39.00	Ch. 3	332	9504.90.40	Ch. 5
182	9030.83.00	Ch. 4	333	9612.10.10	Ch. 5
184	9030.83.00	Ch. 4	4	Withdrawn	Appen. F
533	9030.83.00	Ch. 3	5	Withdrawn	Appen. F
183	9030.89.00	Ch. 4	6	Withdrawn	Appen. F
185	9030.89.00	Ch. 3	21	Withdrawn	Appen. F
534	9030.89.00	Ch. 4	67	Withdrawn	Appen. F
535	9030.90.25	Ch. 3	69	Withdrawn	Appen. F
535	9030.90.45	Ch. 3	109	Withdrawn	Appen. F

Table D-2

Potential products for the ITA-II process, by probable HTS classification and chapter number

Ref. No.	Probable HTS classification	Chapter	Ref. No.	Probable HTS classification	Chapter
186	9030.90.68	Ch. 4	403	Withdrawn	Appen. F
535	9030.90.68	Ch. 3	404	Withdrawn	Appen. F
535	9030.90.88	Ch. 3	405	Withdrawn	Appen. F
186	9030.90.8830	Ch. 4	408	Withdrawn	Appen. F
490	9030.90.8840	Ch. 3	409	Withdrawn	Appen. F
491	9030.90.8840	Ch. 3	410	Withdrawn	Appen. F
186	9030.90.8855	Ch. 4	411	Withdrawn	Appen. F
186	9030.90.8860	Ch. 4	412	Withdrawn	Appen. F
490	9030.90.8860	Ch. 3	413	Withdrawn	Appen. F
491	9030.90.8860	Ch. 3	415	Withdrawn	Appen. F
536	9031.10.00	Ch. 3	416	Withdrawn	Appen. F
536	9031.20.00	Ch. 3	417	Withdrawn	Appen. F
536	9031.30.00	Ch. 3	420	Withdrawn	Appen. F
536	9031.49.40	Ch. 3	421	Withdrawn	Appen. F
187	9031.49.90	Ch. 3	422	Withdrawn	Appen. F
229	9031.49.90	Ch. 3	423	Withdrawn	Appen. F
240	9031.49.90	Ch. 5	429	Withdrawn	Appen. F
536	9031.49.90	Ch. 3	435	Withdrawn	Appen. F
536	9031.80.80	Ch. 3	442	Withdrawn	Appen. F
229	9031.80.8085	Ch. 3	449	Withdrawn	Appen. F
240	9031.80.8085	Ch. 3	453	Withdrawn	Appen. F
188	9031.90.58	Ch. 5	454	Withdrawn	Appen. F
537	9032.10.00	Ch. 3	457	Withdrawn	Appen. F
537	9032.20.00	Ch. 3	463	Withdrawn	Appen. F
537	9032.81.00	Ch. 7	468	Withdrawn	Appen. F
537	9032.89.20	Ch. 7	483	Withdrawn	Appen. F
537	9032.89.40	Ch. 7	484	Withdrawn	Appen. F
537	9032.89.60	Ch. 7	486	Withdrawn	Appen. F
538	9032.89.6085	Ch. 7	487	Withdrawn	Appen. F
537	9032.90.20	Ch. 7	506	Withdrawn	Appen. F
537	9032.90.40	Ch. 7	523	Withdrawn	Appen. F
537	9032.90.60	Ch. 3	524	Withdrawn	Appen. F
538	9032.90.6080	Ch. 3	532	Withdrawn	Appen. F
539	9033.00.00	Ch. 7	9	Unknown	Appen. F
329	9207.10.00	Ch. 7	25	Unknown	Appen. F
330	9504.10.0030	Ch. 5	56	Unknown	Appen. F
60	Unknown	Appen. F			
88	Unknown	Appen. F			
97	Unknown	Appen. F			
103	Unknown	Appen. F			
105	Unknown	Appen. F			
157	Unknown	Appen. F			
172	Unknown	Appen. F			
197	Unknown	Appen. F			
199	Unknown	Appen. F			
200	Unknown	Appen. F			
201	Unknown	Appen. F			

Table D-2

Potential products for the ITA-II process, by probable *HTS* classification and chapter number

Ref. No.	Probable <i>HTS</i> classification	Chapter	Ref. No.	Probable <i>HTS</i> classification	Chapter
284	Unknown	Appen. F			
300	Unknown	Appen. F			
326	Unknown	Appen. F			
327	Unknown	Appen. F			
335	Unknown	Appen. F			
360	Unknown	Appen. F			
374	Unknown	Appen. F			
387	Unknown	Appen. F			
414	Unknown	Appen. F			
419	Unknown	Appen. F			
461	Unknown	Appen. F			
490	Unknown	Appen. F			
491	Unknown	Appen. F			
491	Unknown	Appen. F			
500	Unknown	Appen. F			
510	Unknown	Appen. F			
515	Unknown	Appen. F			
90	ITA-1	Appen. F			
92	ITA-1	Appen. F			
96	ITA-1	Appen. F			
176	ITA-1	Appen. F			
177	ITA-1	Appen. F			
178	ITA-1	Appen. F			
180	ITA-1	Appen. F			
296	ITA-1	Appen. F			
504	ITA-1	Appen. F			
505	ITA-1	Appen. F			
510	ITA-1	Appen. F			
540	ITA-1	Appen. F			

APPENDIX E

CALENDAR OF THE COMMISSION'S HEARING
ON INVESTIGATION NO. 332-390

CALENDAR OF PUBLIC HEARINGS

Those listed below appeared as witnesses at the United States International Trade Commission's hearing:

Subject:ADVICE CONCERNING THE PROPOSED EXPANSION OF THE INFORMATION
TECHNOLOGY AGREEMENT

Inv. No.:332-390

Date and Time:March 19, 1998 - 9:30 a.m.

Sessions were held in connection with the investigation in the Main Hearing Room 101, 500 E Street, S.W.,
Washington, D.C.

ORGANIZATION AND WITNESS

Panel 1

ITA Coalition, Washington, D.C.

Joseph Tasker, Vice President and Associate
General Counsel, Compaq Computer Corporation

Electronic Industries Association ("EIA"), Arlington, Virginia

Peter F. McCloskey, President

Panel 2

Frederick L. Ikenson, P.C.
Washington, D.C.
on behalf of

Committee to Preserve American Color Television
("COMPACT")

Clifton L. Smith, President and Chief Executive
Officer, Corning Asahi Video Products Company

Frederick L. Ikenson--OF COUNSEL

-MORE-

ORGANIZATION AND WITNESS

Panel 2--Cont'd

Eastman Kodak Company, Washington, D.C.

Christopher A. Padilla, Director, International
Trade Relations

Corning Incorporated, Washington, D.C.

Timothy J. Regan, Vice President and Director
of Federal Government Affairs

James Rideout, Manager, Market Analysis for
Telecommunications

Industrial Fasteners Institute (“IFI”), Cleveland, Ohio

Frank W. Akstens, Staff Engineer

Panel 3

Business Technology Association (“BTA”), Chicago, Illinois

Robert C. Goldberg, General Counsel

Jordan R. Labkon, Staff Attorney

Motorola, Washington, D.C.

Pat Milbourne, Vice President and Director of Finance

Mary Chris Arnesen, Senior Customs Specialist

Marian Barell - Nelson, Assistant Director, International Trade Relations

Bob McGinnis, Director, Quality and Customer Satisfaction

Howard Wolfman, Manager, Industry Standards and Utilities

Telecommunications Industry Association
 (“TIA”), Arlington, Virginia

Matthew J. Flanigan, President

-MORE-

ORGANIZATION AND WITNESS

Panel 3--Cont’d

General Instrument Corporation (“GI”), Horsham, Pennsylvania

Don Vassel, Director, Advanced Network Systems

Panel 4

Katten, Muchin & Zavis
Chicago, Illinois
on behalf of

Fuji America Corporation (“FAC”)

David M. Dunbar)
)--OF COUNSEL
James L. Sawyer)

Katten, Muchin & Zavis
Chicago, Illinois
on behalf of

TDK Corporation of America (“TDK”)

David M. Dunbar)
)--OF COUNSEL
James L. Sawyer)

Panel 5

Porter, Wright, Morris & Arthur
Washington, D.C.
on behalf of

Kemet Corporation

Ed Jones, Product Marketing Manager

Don Poinsette, Vice President of International Business

Leslie Alan Glick--OF COUNSEL

-MORE-

ORGANIZATION AND WITNESS

Panel 5--Cont’d

Porter, Wright, Morris & Arthur
Washington, D.C.
on behalf of

Vishay Intertechnology Incorporated

Phil McGaven, Manager Corporate Transportation

Leslie Alan Glick--OF COUNSEL

H. C. Starck Incorporated, Newton, Massachusetts

David L. Nocella, Vice President, Administration and
Purchasing

-END-

APPENDIX F

UNIDENTIFIED, WITHDRAWN, AND ITA-1 PRODUCTS

Table F-1

Products from UTSR's list with insufficient information for classification or analysis

Ref. No.	Product	USTR's indicative HTS heading
	Chemicals used by the capacitor and resistor industries, including but not limited to:	
9	Ceramic powder	28419050x
	Chemicals used by the semiconductor and/or printed circuit board industries:	
25	Hole Plugging Inks	32159050x
	Plastics and rubber articles used by the semiconductor and/or printed circuit board industries:	
56	Polyimide	3908x
60	UnReinforced Laminates	39219050x
	Metals or articles of metals used by the capacitor and resistor industries, including but not limited to:	
88	Pins	73170065x
97	Other aluminum articles, nspf	7616995090
103	Screw wrenches	8204x
105	Centering arm set	82074060x
	Printed Circuit/Wiring Board Manufacturing, Assembly and Testing Equipment including but not limited to:	
157	Solder ball moulder for PCB/PWB assembly	8479 89x
172	Apparatus for application, coating or laminating of PCB/PWBs during processing	8518 19x, 8479 89x
	Capacitor Manufacturing Equipment including but not limited to:	
197	Metal Can Sealing Machines for capacitor manufacturing	8424.89x
199	Automatic Resin Mixer-Doser for capacitor manufacturing	8424.89x
	Capacitor Manufacturing Equipment including but not limited to:	
200	Capacitor Assembly Machines	8424.89, 8479.89x
201	Sorting and Pre-Flattening Machines/Capacitor Winding Machines	8424.89x
	Machinery and equipment for household and office use, and parts thereof, including but not limited to:	
284	Digital audio component connectable to personal computers	852731x
300	Multi-media printers as parts for TV cameras	85299081x
326	Contact image sensors	854890x
327	Memory cards in multicombinational form, including flash cards (IC-E_PROM cards); Contact image sensors	854890x
	Motors, power supplies and similar equipment, and parts thereof, used in information technology products, including but not limited to:	
335	Stepping motor driver	84128090
360	System Test Racks	850440x

Table F-1

Products from UTSR's list with insufficient information for classification or analysis

Ref. No.	Product	USTR's indicative HTS heading
	Motors, power supplies and similar equipment, and parts thereof, used in information technology products, including but not limited to (<i>continued</i>):	
374	Regulators	85118060x
387	Centerpin	853690x
	Other parts, machinery, apparatus and other inputs used in the production of information technology products, including but not limited to:	
414	Paper Masking Machine	8422x
419	Automatic resin mixer-doser	8424x
	capacitor assembly machines	8424x
	sorting pre-flattening machines	8424x
461	Industrial robots not elsewhere specified including component placement machines, machines that automatically sockets cartidges, load packages into magazines, automatically load magazine duct into Seal Furnace, unload sealed units and turn components or assemblies over in the trays.	847950
490	Parts and assessories for measuing form Em>C. (counter measure for noise reduction)	854389x
491	Parts and accessories for measuing for E.M.C. (counter measure for noise reduction)	854389x
	Optical and photographic instruments and apparatus, parts and accessories, including but not limited to:	
500	Optical units for photocopying apparatus	900290x
510	Exposure equipment for photosensitive materials	9010
	Parts and accessories of exposure equipment for photosensitive materials	9010
	Still imaging work stations	9010
	Parts and accessories of still imaging work stations	9010
	Graphic arts proofing workstations	9010
	Parts and accessories of graphic arts proofing workstations	9010
	Color proofing workstations	9010
	Parts and accessories of color proofing workstations	9010
	Curing system for solder mask	9010
	Parts and accessories of curing system for solder mask	9010
	Film digitizers	9010
	Parts and accessories of film digitizers	9010
515	Fiber-optic isolators	901380x

Source: Compiled by USITC staff.

Table F-2
Products from USTR's list that were withdrawn by the requester

Ref. No.	Product	USTR's indicative HTS heading
	Chemicals used by the medical imaging technology industry, including but not limited to:	
4	Photographic paper, paperboard and textiles; sensitized, unexposed	3703
5	Chem preparations for photographic uses (other than varnishes, glues, adhesives and similar preparations)	3707x
	Chemicals used by the capacitor and resistor industries, including but not limited to:	
6	Silicone oil	2710x
21	BYK chemic A501 Degresor (TOSCA required)	3823x
	Paper products used by the capacitor and resistor industries, including but not limited to:	
67	Wrapping paper	4804490x
69	Folding cartons, boxes and cases, of noncorrugated paper	4819200040
	Metals or articles of metals used by information technology firms, including but not limited to:	
109	Wire of iron or non-alloy steel: plated or coated with zinc: round wire: with a diameter <1.0 mm, containing by weight <0.25% of carbon	7217204510
	Other parts, machinery, apparatus and other inputs used in the production of information technology products, including but not limited to:	
403	Other dryers including those used in production of Inkjet Marking Assemblies	8419390080x
404	Machinery for the treatment of materials by a process involving a change in temperature; used in product of Inkjet Marking Assemblies	8419899085x
405	Other parts of other machinery, plant or laboratory equipment including of Dryers used in production of Inkjet Marking Assemblies	8419908080x
408	Labelling Machines for production of Inkjet Marking Assemblies	8422309020x
409	Filling Machinery for production of Inkjet Marking Assemblies	8422309040x
410	Sealing machines used in production of Inkjet Marking Assemblies	8422309060x
411	(Other) machines for filling, sealing, or labeling, used in production of Inkjet Marking Assemblies	8422309090x
412	Parts of machines for filling, sealing, or labeling used in production of Inkjet Marking Assemblies	8422909095x
413	Solder Paste Etching Machine	8422x
415	Scales for continuous weighing on conveyors used in production of Inkjet Marking Assemblies	842320x
416	Mechanical appliances for dispersing of spraying; used in production of Inkjet Marking Assemblies	8424897090x
417	Parts of mechanical appliances for dispersing of spraying; used in production of Inkjet Marking Assemblies	8424908085x
420	Other cont.-action elevators and conveyors for goods and materials: used in production of Inkjet Marking Assemblies	8428398000x
421	Industrial Robots for lifting, handling, loading, unloading for production of Inkjet Marking Assemblies	8428908015x
422	Parts of Elevators and Conveyors used in production of Inkjet Marking Assemblies	8431398015x

Table F-2
Products from USTR's list that were withdrawn by the requester

Ref. No.	Product	USTR's indicative HTS heading
423	Parts in Industrial Robots for lifting, handling, loading, unloading for production of Inkjet Marking Assemblies	8431398085x
429	Machines Tools for the removal of material operated by laser for production of Inkjet Marking Assemblies	84561080x
435	Other milling machines for production of Inkjet Marking Assemblies	8459610080x
442	Machine tools for working metal; for production of Inkjet Marking Assemblies	8462218085x
449	Bending or Assembling Machines for production of Inkjet Marking Assemblies	8465940090x
453	Parts of Bending or Assembling Machines for production of Inkjet Marking Assemblies	8466925090x
	Other parts, machinery, apparatus and other inputs used in the production of information technology products, including but not limited to (continued):	
454	Parts of machine tools for the removal of material operated by laser for production of Inkjet Marking Assemblies	8466939585x
457	Parts of machine tools for working metal for production of Inkjet Marking Assemblies	8466948585x
463	Machines and mechanical appl. not spec. or incl. elsewhere for production of Inkjet Marking Assemblies	8479899797x
468	Parts of Machines and mechanical appl. not spec. or incl. elsewhere for production of Inkjet Marking Assemblies	847990x
483	Ultrasonic Welding Machines for production of Inkjet Marking Assemblies	8515808045x
484	Other soldering, brazing or welding machines for production of Inkjet Marking Assemblies	8515808085x
486	Parts of Ultrasonic Welding Machines for production of Inkjet Marking Assemblies	85159030x
487	Parts of other solder, brazing or welding machines for production of Inkjet Marking Assemblies	85159040x
	Instruments, apparatus and testing equipment including but not limited to:	
506	Microprocessor-Controlled projectors	900810x
523	Other material Testing equipment used in production of Inkjet Marking Assemblies	902480x
524	Parts of other material testing equipment used in production of Inkjet Marking Assemblies	902490x
532	Other instruments for measuring/checking pressure used in production of Inkjet Marking Assemblies	903039

Source: Compiled by USITC staff.

Table F-3
Products from USTR's list included in ITA-I

Ref. No.	USTR List		Most probable HTS No.	Most probable HTS classification
	Product	Indicative HTS Heading		
90	Other articles of iron or steel -- other	732690	8533.90.80	Parts of electrical resistors, other than heating resistors, except parts of ceramic or metallic materials, electrically or mechanically reactive to changes in temperature for certain variable resistors, including rheostats and potentiometers
92	Copper plates	7409x	8532.90.00	Parts of fixed, variable, or adjustable electrical capacitors
92	Copper plates	7409x	8533.90.80	Parts of resistors other than parts of good of 8533.40 of ceramic or metallic materials, electrically or mechanically reactive to changes in temperature
96	Inserts	761610x	8532.90.00	Terminal pins of iron or steel coated with tin
176	Laser photo plotters	900610x	9017.10.40	Drafting tables and machines, whether or not automatic--Plotters
177	Parts of laser photo plotters	900610x	9017.90.0005	Parts of drafting tables and machines, whether or not automatic--Plotters
178	Apparatus for the projection or drawing of circuit patterns on sensitized substrates for the manufacture of printed circuits	901050x	9010.50.60	Apparatus for the projection or drawing of circuit patterns on sensitized substrates for the manufacture of printed circuits
180	Photo plotter for drawing or photo-tool for use in the production of PCB/PWB assemblies	901050x 901710x	9017.10.40 9017.20.70	Plotters
296	Aerials and aerial reflectors of kinds used for devices classified under subheading 8526	852910x	8529.10.40	Antennas and antenna reflectors for radar, radio navigational aid and radio remote control apparatus
504	Digital Camera (Fixed Focus)	90065940x	8525.40.40	Digital still image video cameras
505	Digital Camera (Other than fixed focus)	90065990x	8525.40.40	Digital still image video cameras

Table F-3
Products from USTR's list included in ITA-I

Ref. No.	USTR List		Most probable HTS No.	Most probable HTS classification
	Product	Indicative HTS Heading		
510	CNC direct imaging systems	9010	9010.50.60	Apparatus for photographic laboratories, not elsewhere specified or included
510	Digital optical recording systems	9010	9010.50.60	Laser imagers capable of producing images from data received from medical testing apparatus, such as computed tomography apparatus, magnetic resonance imaging apparatus, ultrasound scanning apparatus, on light sensitive medical imaging film
510	Parts and accessories of digital optical recording systems	9010	9010.90.90	Parts and accessories of laser imagers capable of producing images from data received from medical testing apparatus, such as computed tomography apparatus, magnetic resonance imaging apparatus, ultrasound scanning apparatus, on light sensitive medical imaging film
510	Copy print	9010	9009.21.00	Photocopying apparatus, other than electrostatic, incorporating an optical system
510	Copy print	9010	9010.50.60	Apparatus for photographic laboratories, not elsewhere specified or included
540	Virtual reality equipment such as head-mounted display, cyber glove, 3D trackball	Uncertain	8471.49.15	Head-mounted virtual reality display providing input related to position or movement, entered in the form of systems
			8471.49.15	Cyber glove with tactical response feedback, entered in the form of systems
			8471.49.15	Joystick with tactical response feedback, entered in the form of systems

Table F-3
Products from USTR's list included in ITA-I

Ref. No.	USTR List		Most probable HTS No.	Most probable HTS classification
	Product	Indicative HTS Heading		
540	Virtual reality equipment such as head-mounted display, cyber glove, 3D trackball	Uncertain	8471.49.24	Head-mounted virtual reality display, incorporating a display other than a cathode-ray, not providing input related to position or movement, entered in the form of systems
			8471.49.26	Head-mounted virtual reality display, incorporating a color cathode-ray tube, not providing input related to position or movement, entered in the form of systems
			8471.49.29	Head-mounted virtual reality display, incorporating a monochrome cathode-ray tube, not providing input related to position or movement, entered in the form of systems
			8471.49.4895	Cyber glove without tactical response feedback, entered in the form of systems
			8471.49.4895	Joystick without tactical response feedback, entered in the form of systems
			8471.49.4895	Mouse or trackball, entered in the form of systems
			8471.60.1035	Head-mounted virtual reality display incorporating a color cathode-ray tube, providing input related to position or movement, not entered in the form of systems
			8471.60.1065	Head-mounted virtual reality display, incorporating a monochrome cathode-ray tube, providing input related to position or movement, not entered in the form of systems

Table F-3
Products from USTR's list included in ITA-I

Ref. No.	USTR List		Most probable HTS No.	Most probable HTS classification
	Product	Indicative HTS Heading		
540	Virtual reality equipment such as head-mounted display, cyber glove, 3D trackball	Uncertain	8471.60.1095	Head-mounted virtual reality equipment, incorporating a display other than a cathode-ray display, providing input related to position or movement, not entered in the form of systems
			8471.60.1095	Cyber glove with tactical response feedback, not entered in the form of systems
			8470.60.1095	Joystick with tactical response feedback, not entered in the form of systems
			8471.60.30	Head-mounted virtual reality equipment, incorporating a display without a cathode-ray tube, not providing input related to position or movement, not entered in the form of systems
			8471.60.35	Head-mounted virtual reality display, incorporating a color cathode-ray tube, not providing input related to position or movement, not entered in the form of systems
			8471.60.4540	Head-mounted virtual reality display, incorporating a monochrome cathode-ray tube, not providing input related to position or movement, not entered in the form of systems
			8471.60.9090	Cyber glove without tactical response feedback, not entered in the form of systems
			8471.60.9090	Joystick without tactical response feedback, not entered in the form of systems

Table F-3
Products from USTR's list included in ITA-I

Ref. No.	USTR List		Most probable <i>HTS</i> No.	Most probable <i>HTS</i> classification
	Product	Indicative <i>HTS</i> Heading		
540	Virtual reality equipment such as head-mounted display, cyber glove, 3D trackball	Uncertain	8471.60.9090	Mouse or trackball, not entered in the form of systems

Source: Compiled by USITC staff.

