

In the Matter of
**Certain Electrical Connectors and
Products Containing Same**

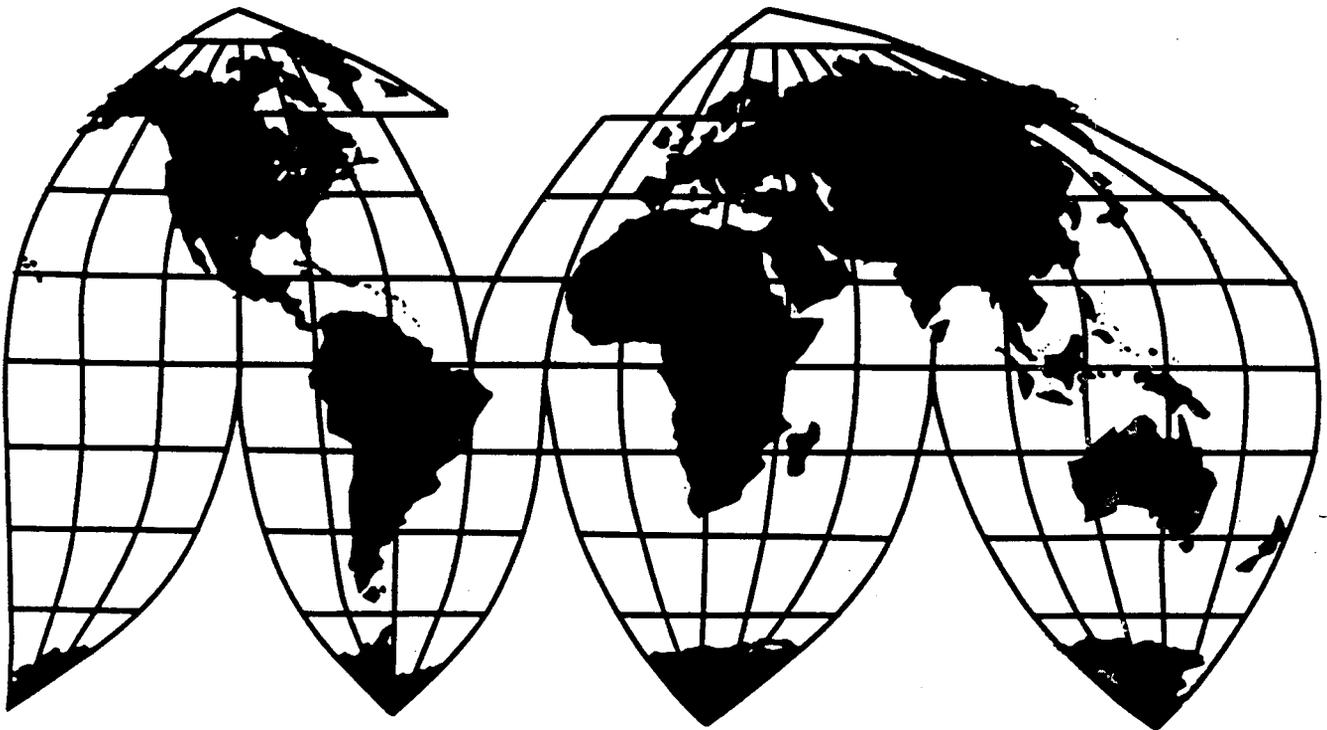
Temporary Relief Proceedings

Investigation No. 337-TA-374

Publication 2980

July 1996

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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Washington, DC 20436**

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**NOTICE OF COMMISSION DETERMINATIONS (1) TO ADOPT THE
ADMINISTRATIVE LAW JUDGE'S INITIAL DETERMINATION DENYING
COMPLAINANTS' MOTION FOR TEMPORARY RELIEF AND
(2) NOT TO REVIEW THE ADMINISTRATIVE LAW JUDGE'S
INITIAL DETERMINATION FINDING RESPONDENT
FOXCONN INTERNATIONAL IN DEFAULT**

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the Commission has determined (1) to adopt the presiding administrative law judge's (ALJ's) initial determination (ID) in the above-captioned investigation denying the motion of complainants AMP Inc. and The Whitaker Corporation for temporary relief, and (2) not to review the ALJ's ID finding respondent Foxconn International in default.

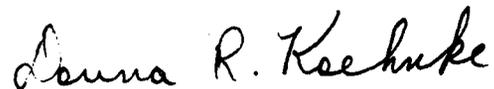
FOR FURTHER INFORMATION CONTACT: Jay Reiziss, Esq., Office of the General Counsel, U.S. International Trade Commission, telephone 202-205-3116.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on May 8, 1995, based on a complaint filed by AMP Inc. of Harrisburg, Pennsylvania and The Whitaker Corporation of Wilmington, Delaware (collectively "complainants"). 60 Fed. Reg. 25247. The following firms were named as respondents: Berg Electronics, Inc ("Berg"); Hon Hai Precision Industry Co., Ltd. ("Hon Hai"); Foxconn International ("Foxconn"); and Tekcon Electronics Corp ("Tekcon"). The Commission also provisionally accepted complainants' motion for temporary relief.

The presiding ALJ held an evidentiary hearing on temporary relief from June 28, 1995, through July 12, 1995. On September 8, 1995, the ALJ issued an ID (Order No. 25) denying complainants' motion for temporary relief. On September 8, 1995, the ALJ also issued an ID (Order No. 23) finding respondent Foxconn in default pursuant to Commission rule 210.16. On September 20, 1995, the parties filed written comments concerning the temporary relief ID. The parties filed reply comments on that ID on September 25, 1995.

This action is taken under the authority of section 337 of the Tariff Act of 1930, 19 U.S.C. § 1337, and Commission rules 210.42 and 210.66 (19 C.F.R. §§ 210.42 and 210.66). Copies of the public versions of the IDs and all other nonconfidential documents filed in connection with this investigation are available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street S.W., Washington, D.C. 20436, telephone 202-205-2000. Hearing-impaired persons are advised that information on the matter can be obtained by contacting the Commission's TDD terminal on 202-205-1810.

By order of the Commission.



Donna R. Koehnke
Secretary

Issued: **October 10, 1995**

PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of)
)
CERTAIN ELECTRICAL CONNECTORS)
AND PRODUCTS CONTAINING SAME)

Investigation No. 337-T-374

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U.S. INT'L TRADE COMMISSION
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Order No. 25: Initial Determination¹

Paul J. Luckern, Administrative Law Judge

Pursuant to the Notice of Investigation (60 Fed. Reg. 25247-25248) (May 11, 1995), this is the administrative law judge's initial determination, under Commission rule 210.58, on complainants' Motion No. 374-1 for temporary relief. The administrative law judge determines, after a review of the record developed, that complainants are not entitled to temporary relief. Accordingly, Motion No. 374-1 is denied.

ID rec'd	9-8-95
Clk.	9-8-95
Public	10-5-95
Comment	9-11-95
Comments due	9-20-95 - 45 pages
Reply to Comments	9-25-95 20 pgs
Clk's comments due	
Public comments due	
Comm. decision due	10-10-95

¹ The Commission's final rules require that Order No. 25 be called an initial determination so that it can be reviewed by the Commission even if no petition for review is filed. This is not the final decision of the administrative law judge in this investigation.

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ABBREVIATIONS

CPF	Complainants' Proposed Findings Of Fact
CPHS	Complainants' Pre-Hearing Statement
CPost	Complainants' Post-Hearing Brief
CPostR	Complainants' Reply Post-Hearing Brief
CPX	Complainants' Physical Exhibit
CRem	Complainants' Submission On Remedy, Public Interest And Bonding In The Temporary Relief Proceeding
CRPF	Complainants' Proposed Rebuttal Findings Of Fact
CX	Complainants' Exhibit
FF	Finding Of Fact
RBPF	Respondent Berg Electronics, Inc. Proposed Findings Of Fact
RBHS	Respondent Berg Electronics, Inc. Pre-Hearing Statement
RBPost	Respondent Berg Electronics, Inc. Post-Hearing Brief
RBPostR	Respondent Berg Electronics, Inc. Reply Post-Hearing Brief
RBPX	Respondent Berg Electronics, Inc. Physical Exhibit
RBRem	Respondent Berg Electronics, Inc. Brief On Remedy, Public Interest And Bonding In The Temporary Relief Proceeding
RBX	Respondent Berg Electronics, Inc. Exhibit
RTPF	Respondent Tekcon Electronics Corp. Proposed Findings Of Fact
RTHS	Respondent Tekcon Electronics Corp. Pre-Hearing Statement
RTPost	Respondent Tekcon Electronics Corp. Post-Hearing Brief
RTPostR	Respondent Tekcon Electronics Corp. Reply Post-Hearing Brief
RTPX	Respondent Tekcon Electronics Corp. Physical Exhibit
RTX	Respondent Tekcon Electronics Corp. Exhibit
SPF	Staff's Proposed Findings Of Fact

SPHS Staff's Pre-Hearing Statement

SPost Staff's Post- Hearing Brief

SPostR Staff's Reply Post-Hearing Brief

SRem Staff's Memo Regarding Remedy, Public Interest And Bonding In The
Temporary Relief Proceeding

SX Staff's Exhibit

Tr. Hearing Transcript (citation to a transcript of any
other proceeding must be specifically identified).

I. Procedural History

On April 3, 1995 a complaint and a motion for temporary relief were filed under section 337, on behalf of AMP Incorporated and The Whitaker Corporation (AMP). The complaint and motion were supplemented on April 27, 1995. The complaint as supplemented alleged violations of section 337 in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain electrical connectors and products containing same by reason of alleged infringement of claims 17, 18, 20, 21 and 23 of U. S. Letters Patent 5,383,792 (the '792 patent). The complaint further alleged that there exists an industry in the United States as required by subsection (a) (2) of section 337.

The Commission, by notice which issued on May 8, 1995, pursuant to section 210.58 of the Commission's final rules, provisionally accepted the motion for temporary relief and named the following respondents: Berg Electronics, Inc. (BERG or Berg), Hon Hai Precision Industry Co., Ltd. (Hon Hai), Foxconn International Inc. (Foxconn) and Tekcon Electronics Corp. (Tekcon). The Commission denied a motion filed by Berg on April 21 to designate the temporary relief proceedings "more complicated" without prejudice to a renewal of that motion.

A prehearing conference was held on May 15, 1995. Order No. 1 which issued on May 23 designated the investigation more complicated and stated that the initial determination on complainants' motion for temporary relief will be due on September 8, 1995. On June 2 the investigation was reassigned to the undersigned.

A prehearing conference was commenced on June 28, 1995 with the evidentiary hearing commencing also on June 28. The hearing concluded on July 12 which resulted in a total of twelve hearing days. Post hearing submissions

have been submitted.¹ On August 15 closing arguments were held. While respondents Berg and Tekcon appeared at the hearing and closing arguments respondents Foxconn and Hon Hai did not. An initial determination (Order No. 23), which issued on September 8, has found Foxconn in default under Commission final rule 210.16 and hence to have waived its right to appear, to be served with documents and to contest the allegations at issue in this investigation. Order No. 24, which also issued on September 8, pursuant to Commission final rule 210.17, found certain adverse inferences against Hon Hai for failure to participate in the temporary relief proceedings.

The matter is now ready for a decision.

This initial determination is based on the record compiled at the TEO hearing and the exhibits admitted into evidence. The administrative law judge has also taken into account his observation of the witnesses who appeared before him during the TEO hearing. Proposed findings submitted by the parties participating at the TEO hearing not herein adopted, in the form submitted or in substance, are rejected as not supported by the evidence, as involving immaterial matter, and/or as irrelevant. The findings of fact with this opinion include references to supporting evidence in the record. Such

¹ BERG on August 7, 1995, filed Motion No. 374-42 for leave to file out of time its proposed findings of fact in rebuttal to the staff's proposed findings of fact. It argued that BERG had prepared its rebuttal findings of fact indexed to the staff's direct findings before the deadline for their submission; that BERG overlooked filing them contemporaneously with its Post Hearing Rebuttal Brief and its findings rebutting the proposed direct findings of complainants; that BERG discovered its oversight after those documents were served on the parties on August 5, 1995, and filed with the Commission on August 7, 1995; and that there is no right to reply to BERG's proposed rebuttal findings and so BERG's delay has not prejudiced the rights of the staff. The staff, in a telephone call to the attorney adviser on August 8, stated that it will not oppose Motion No. 374-42. For the reasons stated by Berg and because the staff did not oppose Motion No. 374-42, the motion is granted.

references are intended to serve as guides to the testimony and exhibits supporting the findings of fact. They do not necessarily represent complete summaries of the evidence supporting said findings.

II. Parties

See FF 1-67 for identification of the private parties.

III. Importation

See FF 38, 41, 54 and 58 for importation by the private parties.

IV. Jurisdiction

Respondents Berg and Tekcon have appeared in this investigation through counsel and have fully participated in the proceedings. Respondents Hon Hai and/or Foxconn have responded to some discovery and made certain filings. The Commission has jurisdiction over this proceeding by virtue of the respondents' importation of the accused product. See Certain Circuit Board Testers Inv. No. 337-TA-342, USITC Pub. 2622, Opinion of the Commission, at 2, n. 2 (1993) (Circuit Board).

V. Products In Issue

The products at issue are certain electrical connectors used to connect a "SIMM card" (SIMM being an acronym for "single in-line memory module") to a circuit board. The SIMM card is sometimes referred to as a "daughter card," while the circuit board is known as a "mother board." SIMM cards, commonly used to provide memory for computers, are popular because they provide a large amount of memory in a small space. They are designed to be inserted or removed by the end user from the mother board which forms a permanent part of a device such as a computer. (FF 68).

The SIMM electrical connectors have commonly been referred to as "SIMM connectors" or "SIMM sockets." The SIMM connectors connect daughter cards to

mother boards (FF 69). Latch arms are provided to cooperate and maintain the daughter board in an operational position. (FF 68, 71). The particular SIMM connectors in issue have a separate, resilient metal latch. (FF 76).

Witnesses have variously referred to the SIMM connectors at issue as "cam-in" or "rotate and latch" type connectors. While a cam-in (rotate and latch) SIMM connector is a connector where the SIMM board is put into the connector at an angle and is then rotated to create the normal force on the contact, a push-pull (direct insert) SIMM connector is a connector where the SIMM card (module) is inserted directly into the connector in a generally straight, axial movement.² (FF 69).

With the rotate and latch SIMM connector in issue, during rotation the SIMM connector's electrical contacts engage the contact pads of the daughter card. As the daughter card is rotated into its operating position, the daughter card engages a portion of resilient latches located at each end of the SIMM connector housing. This engagement causes the latches to be cammed or moved away from the card, thereby allowing for the continued rotation of the card into its operating position. (FF 71). Once the daughter card is in its operating position, the latches spring back and serve to secure the daughter card in place. (FF 72).

VI. Standard For Temporary Relief

Under 19 U.S.C. §1337 (e) (3), the analysis in determining whether to

² Complainants in this investigation have referred to this type of connector as a "straight in" connector. Berg has objected to the term "straight in" connector on the ground that the term is not used in the industry. However, Berg's expert Strich testified that while he did "not generally" use the term, he was "willing to use it" during his testimony. (FF 70a). He also agreed that he is familiar with a direct insert connector and that it is sometimes called a straight in connector. Strich has heard of a push/pull connector (FF 70b).

grant temporary relief is the same as that which Federal district courts use in deciding whether to grant preliminary injunctions. That analysis requires a balancing of the following four factors:

1. Complainants' probability of success on the merits;
2. Threat of irreparable harm to the domestic industry in the absence of the requested relief;
3. The balance of harm between the parties; and
4. The effect, if any, that issuance of the requested temporary relief would have on the public interest.

Circuit Board Commission Opinion at 4. No one factor taken individually is necessarily dispositive. Each factor must be weighed and measured against the other factors and against the form and magnitude of the relief requested.

Hybritech Inc. v. Abbott Laboratories, 849 F.2d 1446, 1451, 7 USPQ2d 1191, 1195 (Fed. Cir. 1988) (Hybritech Inc.). Temporary injunctive relief is "not to be routinely granted" Intel Corp. v. ULSI System Technology, Inc. 995 F.2d 1566, 1568, 27 USPQ2d 1136, 1138 (Fed. Cir. 1993), cert. denied 1145 Ct. 923 (1994).

With respect to probability of success on the merits, which is the first element that AMP must establish, the Federal Circuit has held several times that, in order to prevail, the movant's probability of success must rise to the level of a reasonable likelihood of success. Roper Corp. v. Litton Systems, Inc., 757 F.2d 1266, 1271 225 USPQ 345, 348 (Fed. Cir. 1985) (Roper); H.H. Robertson Co. v. United Steel Deck, Inc., 820 F.2d 384, 388, 2 USPQ2d 1926, 1928 (Fed. Cir. 1987) overruled on other grounds by Markman v. Westview Instruments, Inc., 52 F.3d 967, 34 USPQ2d 1321 (Fed. Cir. 1995) (H.H. Robertson); T.J. Smith and Nephew Limited v. Consolidated Medical Equipment, 821 F.2d 646, 647, 3 USPQ2d 1316, 1317 (Fed. Cir. 1987).

An administrative law judge's decision to issue temporary relief is discretionary. New England Braiding Co. v. A. W. Chesterton Co., 970 F.2d 878, 882, 23 USPQ2d 1622, 1625, 1626 (Fed. Cir. 1991) (Braiding). Where a patent is involved, the statutory presumption of validity, viz. 35 U.S.C. § 281, "is not evidence which can be 'weighed' in determining likelihood of success." Thus the presumption does not relieve a patentee who moves for temporary relief from carrying the normal burden of demonstrating that it will likely succeed, even when the issue concerns the patent's validity. Id. A patentee can fail to make a sufficient showing of likelihood of success required to support a temporary exclusion order when the evidence presented in support of invalidity of the patent in issue raises a substantial question, even though that defense may not be entirely fleshed out. Id.

Entitlement to temporary relief is determined in the context of the presumption and burdens that would adhere at the hearing on the merits. Braiding 970 F.2d at 880, 881, 23 USPQ2d at 1625, 1626. However, although it is not the patentee's burden to prove validity, on a motion for temporary relief the patentee must show that the alleged infringer's defense lacks substantial merit. At this phase of the investigation, the administrative law judge does not resolve the validity question of the '792 patent, but rather must make an assessment of the persuasiveness of the challenger's evidence, recognizing that he is doing so without all evidence that may come out at the hearing. Id.

Courts faced with a "strong" showing of validity of a patent and its infringement have found irreparable harm merely from continued infringement of the valid patent on the ground that the very nature of the patent right is the right to exclude others and once the patentee's patent has been held valid and

infringed, the patentee should be entitled to the full enjoyment and protection of its patent rights. Smith Int'l, Inc. v. Hughes Tool Co., 718 F.2d 1573, 1582, 219 USPQ 686, 692 (Fed. Cir. 1983), cert. denied, 464 U.S. 996 (1983), (Smith Int'l) (citing Zenith Laboratories, Inc. v. Eli Lilly and Co., 460 F. Supp. 812, 825, 201 USPQ 524 (D.N.J. 1978)). However only when the patentee "clearly shows" that the patent is not invalid, may the administrative law judge, after a balance of all of the competing equities, temporarily enjoin another from violating the rights secured by the patentee Atlas Powder Co. v Ireco Chemicals, 773 F.2d 1230, 1233, 227 USPQ 289, 292 (Fed. Cir. 1985) (Atlas Powder); Nutrition 21 v U.S. 930 F.2d 867, 869, 870, 18 USPQ2d 1347, 1350, 1351 (Fed. Cir. 1991) (Nutrition).³

A prior adjudication is not an absolute requirement for grant of temporary relief. See Atlas Powder (a prior adjudication of validity but no prior adjudication of infringement). Moreover an entitlement to a presumption of irreparable harm is not, in itself, necessarily dispositive of the irreparable harm question because a presumption of irreparable harm to a patentee is, like all presumptions, rebuttable. Illinois Tool Works, Inc. v. Grip-Pak, Inc., 906 F.2d 679, 681-82, 15 USPQ2d 1307, 1308-09 (Fed. Cir. 1990). Even when irreparable injury is presumed and not rebutted, it is still necessary to consider the balance of hardships between the parties before an injunction may be issued. H.H. Robertson, 820 F.2d at 390, 2 USPQ2d at 1930.

VII. Opinion

1. Complainants' Probability Of Success On The Merits

³ The Court, in Nutrition, found that the movant Nutrition 21 had not established facts entitling it to a presumption of irreparable harm because the validity of the '927 patent in issue had never been tested in litigation and the district court made no finding that Nutrition 21 had made a clear showing that the '927 patent was valid.

Complainants have alleged that respondents Berg, Tekcon, Foxconn and Hon Hai infringe independent claim 17 and dependent claims 18, 20, 21 and 23 of the '792 patent.

a. Claim Construction

A threshold question with respect to the issues involving the asserted independent claim 17, and dependent claims 18, 20, 21 and 23 (FF 127) is to ascertain the scope of those claims. Claims are construed in the same manner when determining both validity and infringement. W.L. Gore & Associates, Inc. v. Garlock, Inc., 842 F.2d 1275, 1279, 6 USPQ2d 1277, 1280 (Fed. Cir. 1988). The construction of the meaning of language in a claim should be made independent of what is being alleged to infringe the claim. See Donald S. Chisum, Patents § 18.03 (1994) (Chisum).

To ascertain the meaning of claims, the claims, as well as the specification and the prosecution history are considered. Claims must be read in view of the specification of which they are a part. The specification contains a written description of the invention that must enable one of ordinary skill in the art to make and use the invention. For claim construction purposes, the written description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. A patentee is free to be his own lexicographer, although any special definition given to a word must be clearly defined in the specification. Markman v. Westview Instruments Inc., 52 F.3d at 979, 34 USPQ2d at 1329 (Fed. Cir. 1995) (en banc) petition for cert. filed, 64 USLW 3068 (July 3, 1995) (No. 95-26) (Markman).

The administrative law judge may, in his discretion, receive extrinsic evidence to aid him in coming to a correct conclusion as to the true meaning

of language employed in a patent. Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries and learned treatises. This evidence may be helpful to explain scientific principles, the meaning of technical terms, and terms of art that appear in the patent and prosecution history. It may also demonstrate the state of the prior art at the time of the invention. Extrinsic evidence may be necessary to inform the administrative law judge about the language in which the patent is written. Extrinsic evidence, however, is not for the purpose of clarifying ambiguity in claim terminology. It is not ambiguity in the document that creates the need for extrinsic evidence but rather an unfamiliarity of the administrative law judge with the terminology of the art to which the patent is addressed. Markman, 52 F.3d at 981, 34 USPQ2d at 1331.

The testimony of an inventor or his patent attorney on the proper construction of claims, based on the text of the patent, is entitled to no deference because it amounts to no more than legal opinion which is precisely the process of construction that the administrative law judge must undertake. No inquiry as to the subjective intent of the inventor or of the Patent Office is appropriate or even possible in the context of a patent infringement action. In fact, commonly the claims are drafted by the inventor's patent solicitor and they may even be drafted by the patent examiner in an examiner's amendment subject to the approval of the inventor's solicitor. Markman, 52 F.3d at 985-986, 34 USPQ2d at 1334, 1335.

Claims must be construed to uphold their validity, if possible. Lewmar Marine, Inc. v. Barient, Inc. 827 F.2d 744, 749, 3 USPQ2d 1766, 1769 (Fed. Cir.), cert denied, 484 U.S. 1007 (1988). Reference to a preferred embodiment

in a specification is not a claim limitation. Laitram Corp. v. Cambridge Wire Cloth Co., 863 F.2d 855, 865, 9 USPQ2d 1289, 1296 (Fed. Cir.), cert. denied, 490 U.S. 1068 (1989). Under the doctrine of claim differentiation, the presence of an express limitation in one claim may negate an intent to limit similarly by implication a claim in which the limitation is not expressed. Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 770, 218 USPQ 781, 790 (Fed. Cir. 1983). cert. denied, 104 U.S. 1026 (1984), overruled on other grounds, SRI International v. Matsushita Electric Corp., 775 F.2d 1107, 227 USPQ 577 (Fed. Cir. 1985). Diverse definitions of a phrase in a claim of the patent proffered after the patent has issued may reflect either unartful claim drafting, a conscious attempt to create ambiguity, or a desire to claim a wide variety of inventions that are not described or enabled in the specification. See Genentech Inc. v. The Wellcome Foundation Ltd., 29 F.3d 1555, 1564, 31 USPQ2d 1161, 1167 (Fed. Cir. 1994) (Genentech).

The '792 patent issued on January 24, 1995, from application Ser. No. 26,280 filed in March 1993 which application was a continuation of Ser. No. 645,151 filed on January 22, 1991, which application was a continuation of Ser. No. 313,261 filed on February 21, 1989. (FF 77, 79). The preamble of the sole independent claim in issue, viz. claim 17, reads:

An electrical connector for connecting a daughter card and a mother board, the daughter card being rotatable relative to the mother board between a first and a second position, the electrical connector having a housing with a card receiving slot dimensioned to receive the daughter card therein, and the connector having contact terminals positioned adjacent to the card receiving slot and configured to make an electrical connection with the daughter card when the daughter card is in the second position in the card receiving slot, the electrical connector comprising . . .

(FF 127). According to the testimony of experts, and as admitted by complainants (FF 134, 136), the preamble of claim 17 describes a type of

electrical connector that was in existence prior to the filing date of the '792 patent, namely, a rotate-and-latch electrical connector. Moreover, the '792 patent in its Background of Invention portion describes such a prior art connector. (FF 86, 87).

The remaining language of sole independent claim 17 is as follows:

(1) [4] a latch receiving section provided near an end of the housing adjacent the card receiving slot of the housing;

(2) a separate resilient latch having a base portion which is positioned in the latch receiving section, and a latching portion which extends from the latch receiving section toward the card receiving slot, the latch positioned in the latch receiving section such that the latch receiving section cooperates with the latch to limit movement of the latching portion in a direction transverse to the length of the card receiving slot;

(3) whereby after the daughter card is rotated from the first position to the second position, the latch cooperates with the daughter card to maintain the daughter card in the second position.

(FF 127). In issue, based on the post hearing submissions of the parties, are the phrases (a) "latch receiving section" in (1) and (2) above, (b) "a separate resilient latch having a base portion which is positioned in the latch receiving section" in (2) above, and (c) the type of transverse movement involved in the phrase "the latch positioned in the latch receiving section, such that the latch receiving section cooperates with the latch to limit movement of the latching portion in a direction transverse to the length of the card receiving slot" which is also found in (2) above.

(i) "latch receiving section"

Complainants argued that it is beyond dispute that the phrase "latch

⁴ The parenthetical numbers are not in claim 17 and are being used in this opinion merely for reference purposes.

receiving section" should be construed as merely the area or place that gets or accepts the latch. (CPost at 14). The staff argued that "latch receiving section" should be interpreted as meaning an area or portion that gets or accepts the latch. (SPost at 13).

Respondent Berg argued that the phrase "latch receiving section" means a structure forming an opening or recess in the connector housing such that the base portion of the separate latch is insertable in that structure. (RBPost at 42, 46). It argued that the Examiner would not have allowed claim 17 if he "appreciated that that claim was being drawn upon a latch mounted on the outside of the housing." (Tr. at 4892). Tekcon argued that the specification and the drawings of the '792 patent define a latch receiving recess with four walls and a base, wherein a metal latch can be fully inserted. (RTPost at 48).

One of the three inventors named on the '792 patent, viz. the first named inventor Iosif Korsunsky (FF 77),

5

Q.

A.

5

(FF 135).

Q.

A.

Q.

A.

Q.

A.

Q.

A.

[⁶]

(FF 135). AMP's patent solicitor, who first introduced the phrase "latch receiving section" into the '792 patent through an April 14, 1992 amendment, filed in Serial No. 645,151 (FF 163),

⁷ It is also common in the

⁶ The '792 patent did not issue until January 24, 1995. Its specification contains only some six columns. (FF 77).

⁷ It is lawful for a patent applicant to amend claims or to insert additional claims in a patent application to cover a competitor's product which the applicant discovers in the marketplace after filing the application with the Patent Office. Any such amendment, however, must comply with all statutes and regulations and if it does, its genesis in the marketplace is simply irrelevant and cannot of itself evidence deceitful intent. See, e.g. Kingsdome Medical Consultants, Ltd. v. Hollister Inc., 863 F.2d 867, 874, 9

(continued...)

prosecution of a patent application that the claims are drafted by the inventor's patent solicitor. While presumably the inventor has approved any changes to the scope of a claim that have occurred via an amendment during the prosecution process, it is not unusual for there to be a significant difference between what an inventor thinks his patented invention is and what the ultimate scope of the claims is after allowance by the Patent Office. See Markman supra.

However, the testimony of an inventor on the proper construction of claims is entitled to no deference because it amounts to no more than legal opinion which is precisely the process of construction that the administrative law judge must undertake. See Markman supra.

The first time the phrase "latch receiving section" appears in the '792 patent is in claim 17 in issue. (FF 137). Thus, that phrase is not found in the specification of the '792 patent. While complainants argued that the claimed phrase "latch receiving section" in independent claim 17 should be construed to mean only the area or place on the housing that gets or accepts the latch, independent claim 17 does not define "latch receiving section" either in that way or in any other way. Moreover, there is testimony from Berg's expert Kirk that the phrase in issue as recited in independent claim

⁷(...continued)

USPQ2d 1384, 1390 (Fed. Cir.), cert. denied, 490 US 1067 (1989). The record in this investigation to date, as admitted by Berg, shows that

(FF 172).

17, and looking only at claim 17, does not suggest any type of structure nor any type of physical configuration other than location of a structure when other language of the claim is considered. (FF 133). Complainants agree with that testimony, see CPF 103. Thus, one of ordinary skill in the art must look to other claims, the specification and the prosecution history to ascertain the meaning of "latch receiving section." Markman 53 F.3d at 979, 34 USPQ2d at 1329.

Claim 20, dependent on independent claim 17, recites that "the latching portion of the latch is positioned outside of the latch receiving section" (FF 137) which is found to suggest that at least a portion of the latch, recited in claim 17, is positioned inside the latch receiving section.

When one looks to the specification of the '792 patent, one finds that the sole embodiment shown by its seven figures discloses that the "latch receiving section" is a structure forming an opening or recess in the connector housing such that at least the base portion of a separate metal latch is insertable in that structure. (FF 94, 95, 96). Thus the specification, for example, states:

Proximate ends 18 of base 8 are latch receiving recesses 24, as best shown in FIGS. 1 through 3. Each latch receiving recess 24 is provided proximate the board-receiving opening 20. As is shown in FIGS. 1 and 2, each latch receiving recess 24 has three side walls 26 which extend from an upper surface 28 of the connector housing toward the bottom surface 16 of the base.

(FF 95, 96, 97). The details of that sole embodiment form the majority of the specification, viz. from col. 3, line 23 to col. 6, line 65. (FF 94, 108).

There is no suggestion in the drawings nor in the "Detailed Description Of The Invention" of the '792 patent as to any structure for a "latch receiving section," other than a recess or opening or cavity in the housing. (FF 94, 110). Also the "Summary Of The Invention" (Emphasis added) portion of

the '792 patent makes it clear that the invention is directed to an electrical connector which has an improved latch member provided at each end of the connection (FF 88), with latch receiving recesses provided and dimensioned to receive the insertable latch member therein. (FF 88 to 93). The "Field Of The Invention" (Emphasis added) portion of the '792 patent discloses that the invention is directed to an insertable latch means for use in an electrical connector. (FF 85). Although there is no suggestion as to any type of structure nor any type of physical configuration of said latch means in that portion, the portion does disclose that "the latch means of the invention are insertable into a housing of the connector" to cooperate with respective circuit boards, with the latch means configured to accommodate the wide tolerance range associated with the circuit boards. (FF 85).

The "Background Of The Invention" (Emphasis added) portion of the '792 patent stresses the advantage if the latch member of a rotate and latch electrical connector could be made from a material having desired resilient characteristics which is said to require the latch member be separately manufactured and inserted into the electrical connector housing after the housing has been molded. (FF 87). There is no suggestion in the "Background Of The Invention" portion of the '792 patent of any type of structure nor any type of physical configuration of the latch means or any "latch receiving section."

While the specification of the '792 patent under "Detailed Description Of The Invention" describes an opening or recess or cavity in the housing for the "latch receiving section," the specification does envision other configurations of the resilient arms of the latch. (FF 108). However, it states that:

[t]he operation of the each [sic] latch member, no matter the configuration, is essentially identical to the operation of the latch member described herein. [FF 108]

The '792 patent does refer to the latch as being "insertable." Thus the title of the '792 patent is "Insertable Latch Means For Use In An Electrical Connector." (FF 77), consistent with the "Field of the Invention" disclosure that the latch means are insertable into a housing of the connector. (FF 85). The "Summary of the Invention" states that "[a]n insertable latch member is described for use in an electrical connector." (FF 90). In the "Background Of The Invention" portion the '792 patent, referring to the disadvantages of the prior art electrical connectors, states:

It would therefore be advantageous if the latch members could be made from a material having the desired resilient characteristics. This requires the latch members to be separately manufactured and inserted into the housing after the housing has been molded.
[Emphasis added]

(FF 87). Fig. 1 of the '792 patent illustrates a perspective view of a connector with an "insertable latch member" provided therein. (FF 94).

Under the heading "Detailed Description Of The Invention" (Emphasis added) the '792 patent states that "the configuration of the securing arm and the shoulder of the side wall allows the latch member 40 to be inserted into the latch member receiving recess 24 through the upper surface 28 of the connector housing. As insertion occurs, securing arm 60 will be caused to move to the right as viewed in FIG. 3, thereby placing the securing arm in a stressed position. Once the latch member is fully inserted into the recess 24 . . ." (FF 102). It is further stated that "[d]ue to the fact that the latch member 40 is insertable into the housing, and is therefore not molded from the same plastic material as the housing, the latch member 40 is usable over many more cycles." (FF 106).

Moreover, the word "insert" or its equivalent is also used in the '792 patent with respect to daughter board and the mounting post. In both instances it is so used to describe placing an object inside a structure. Thus, as to the daughter board, under the heading "Background of the Invention," the '792 patent states that the insertion of the large board into the slot can cause the plastic latch to take a permanent set, so that as the small board is inserted, the latch will not be effective in maintaining the board in the slot, resulting in an ineffective connection. (FF 87). The '792 patent, under the heading "Detailed Description of the Invention" further discloses that, with respect to the claimed invention, "as daughter boards are inserted and removed, each resilient arm 48 will not take a permanent set, and will therefore be usable over a great number of cycles" (FF 124) and that "[i]n the prior art, when a relatively wide card was inserted into the connector it would cause the plastic latches to take a permanent set . . . and thus when a relatively small card was inserted, the latches would not retain the card in position . . . [and that with] the present invention this result is eliminated, as the latch members 40 will not take a permanent set due to the varied dimensions of the cards." (FF 125).

With respect to the mounting post and placing an object inside a structure, under the heading "Detailed Description of the Invention" it is stated that "as the portion 68 is inserted into the opening 70, the portion 68 is allowed to deform due to the presence of slot 74" and "[t]his deformation allows the board engagement portion 68 to be inserted into the opening 70 . . . [with this] type of deformation . . . [causing] portion 68 to exert a force on the walls of the opening when the portion 68 is properly inserted therein, thereby insuring that the portion 68 will be maintained in the opening 70."

(FF 122). It is also stated that in prior art connectors, the failure of the mounting post "during insertion" resulted in a major problem, as the failure of the post causes the entire connector to become ineffective (FF 126), but that in the present invention the mounting section 44 is made from material having a significant strength characteristics and therefore damage to the mounting section during insertion is essentially eliminated resulting in a much more reliable connector. (FF 126).

The abstract of the '792 patent conclusively discloses that, in the electrical connector of the invention, latch receiving openings in the connector housings are dimensioned to receive insertable latch members therein. (FF 84).

Complainants have relied on testimony of their technical expert Williamson in support of their argument that the claimed phrase "latch receiving section" should be construed as meaning merely the area or place that gets or accepts the latch. Respondent Berg in turn has relied on its technical expert Kirk to support Berg's construction that the claimed phrase in issue means a structure forming an opening or recess in the connector housing such that the base portion of the separate latch is insertable in that structure.

Testimony of an expert with respect to the construction of a claimed phrase is extrinsic evidence. The Federal Circuit, however, has made it clear that it is at the administrative law judge's discretion as to whether he should rely on such extrinsic evidence to aid him in coming to a correct conclusion as to the true meaning of claimed language. Markman 53 F.2d at 979-981, 34 USPQ2d at 1329-1335. When relied upon, expert testimony is to provide assistance to the administrative law judge's understanding if claim

language, for example, is technologically complex or if the claimed language involves scientific principles. Expert testimony also may be found helpful if the administrative law judge is unfamiliar with the terminology of the art to which a patent is addressed, Id. However, where the meaning of claim language is made clear from the claims, specification and prosecution history, the administrative law judge can not rely on extrinsic expert testimony to change that meaning Southwall Technologies Inc. v. Cardinal IG Co. 54 F.3d 1570, 1574, 34 USPQ2d 1673, 1677, 1678 (Fed. Cir. 1995) (Southwall).

What is in issue here is not technologically complex language but rather the patent attorney language "latch receiving section." Hence extrinsic expert testimony on the construction of the phrase is found unnecessary. Moreover, assuming a need for expert testimony to construe the meaning of the claimed language "latch receiving section," which the '792 patent makes clear involves a "latch means [which] are insertable into a housing" (FF 85, 87, 90), the title of the '792 patent, being "Insertable Latch Means For Use In An Electrical Connector," (FF 77)

⁸ Williamson was qualified as complainants' technical expert

⁸ On the meaning of "insertable" and its cognates Williamson, at the hearing, testified (Tr. at 2205-2215):

Q As used in the specification, do you think insertable means inserting something on the surface of something or do you think it means inserting something into something beneath the surface?

A I don't think the options you offered me include all possible options.

Q In fact, the only way the word insertable is used in the specification is in connection with inserting something into something; that is, into a recess or cavity. Isn't that correct?

(continued...)

⁸(...continued)

A I don't know that to be true.

Q Well, look at the patent.

A You want me to read it?

Q I assume you have read it. But if you need to read it again, read it.

A This is a question which has never appeared to me to be relevant before. And if you want me to look at the patent, I will read it.

Q Please.

A But I'll have to start from scratch.

Q Please.

A And just so that I'm quite clear, specifically what is your question?

Q Is the word insertable -- strike that. The word insertable is only used in the specification to mean inserting something into a recess or cavity. Is that correct?

(Pause.)

A Allow me to confirm that I have noted your question accurately.

Is the word insertable only used in the specification in connection with inserting something into a recess or cavity. Is that correct?

Q That's correct.

A Thank you.

(Pause.)

Q Dr. Williamson, I don't mean to complicate your task, but you should look for other forms of the word insert or insertable. I think it's used in the sense of inserted, but the base is insert. I don't want you to have to go back and look further.

A Insertable and its cognates.

Q Yes.

(continued...)

⁸(...continued)
(Pause.)

A Thank you for being so patient. I have now finished reading.

Q Can you answer the question?

A There certainly are a number of instances where the word insertable and its cognates is used in the sense of inserting something into a slot, an opening, a channel.

But there are also instances where we're not told what it is being inserted into. We're merely told into a housing. That doesn't, of itself, carry to me any feeling of recess or cavity.

There are a couple of places where we aren't told anything about the word at all. It's just simply used. We don't know what it's being inserted into.

So, my conclusion is they're using the word in a normal sense, but they are not always implying that there is some recess or cavity.

Q Is there any --

JUDGE LUCKERN:

When you say normal sense, what do you mean by normal sense?

THE WITNESS?

Well, when we use the word insert, it usually means putting something into the middle of something else. You can insert yourself into a crowd. You can insert a peg into a hole. There are many meanings that insert can have.

But in the patent they use, for example, insert into a housing. That, of itself, doesn't tell us whether you're going into a hole in the housing or not. It's just a phrase they're using.

So, I'm not going to agree that it is always clearly used in the sense of -- that what you're going into is a recess or a cavity. Sometimes it simply isn't specified.

JUDGE LUCKERN:

Well, my only question, sir, was you said normal sense, and I was trying to understand what you meant by the normal sense of the use of this word.

(continued...)

⁸(...continued)

THE WITNESS:

To take something which is only -- is not belonging to a group and to make it part of a group, that could be a meaning for insert.

JUDGE LUCKERN:

Okay.

THE WITNESS:

The question of getting the car into a street was an example.

JUDGE LUCKERN:

Is that a normal use of insert?

THE WITNESS:

Well, it's one that one would understand. If I were to say I have inserted myself into this line of marching people, everybody knows what I mean.

* * *

Q Okay. I would like to know specifically where you find reference to inserted or insertable where you feel it is not being used in the sense of being inserted into a recess, cavity, slot, channel, what have you.

A Column one, line 12. It merely says "insertable into a housing." That, of itself, doesn't tell me anything to do with a cavity.

Q But would you agree that later on the word insertable into a housing is used where it is clear that what's intended is a recess?

A Well, I'll look at the other places where it is used. Look, for example, at column two, line six. It simply says "inserted into a housing." That, again, doesn't give me the meaning you are seeking.

Q Okay. But, again, later on in the specification --

A I haven't finished answering your question, sir.

Q Okay.

(continued...)

⁸(...continued)

A I'm going to go through all the places where it does say housing.

At column five, line 52, again we read "insertable into the housing."

No. When it uses the phrase into a housing, there is no place where it uses it that carries the connotation you are seeking to derive. It just simply says into a housing.

Q Are there any other places you want to point to, other than the three that you've mentioned?

A I don't think the phrase into a housing is used elsewhere. At least as I read through the patent rather quickly, I did not observe it being used elsewhere.

Q Are there any places where you want to point out where the word insertable, or inserted, or such a word, similar word, has been used where there's no explicit reference to housing -- excuse me -- explicit reference to cavity, recess, channel, slot?

A They do talk about a daughter board being inserted into a connector. There is at that point no explicit reference, such as you've asked me to demonstrate.

Q Are you there looking at column five, line 67?

A No. I was actually looking at column one -- excuse me a second. I have to check that. It's line 27. Simple statement, "The daughter board is then inserted into the connector and rotated to its operating position."

Q An is it your testimony that you don't think one of ordinary skill in the art would read that as meaning that it is inserted into a slot?

A That wasn't the question you asked me.

Q I'm asking --

A You asked me whether there was a place where it didn't have any specific reference to a recess, cavity or slot, and I gave you one.

Q You're correct. But I'm now asking a different question. Are you saying that one of ordinary skill in the art, reading the word inserted there, would not believe that insertion into a slot or cavity was being discussed?

(continued...)

⁸(...continued)

A No, in this case I think the natural interpretation of that is that the daughter board is going to go into a card receiving slot.

Q And given what has been contained in the specification prior to column five, lines 51 and 52, don't you think one of ordinary skill in the art, when it sees the sentence, "Due to the fact that the latch member is insertable into the housing and, therefore, is not molded from the same plastic material as the housing, the latch member 40 is usable over many more cycles," don't you think one of ordinary skill in the art -- in view of the remainder of the specification -- would read that as meaning insertable into some sort of cavity, recess, slot, channel of some kind?

A It could mean, and the claim suggests it does mean, insertable into a section in the housing.

Read the sentence again. "Due to the fact that the latch member is insertable into the housing," that doesn't say it's going to go into a cavity or a recess.

It just means it's going to be placed somewhere in the housing, and that could be in a section.

Q But prior to this there's been a specific recitation or rather specific description of inserting the latch member into a recess. You agree with that, don't you?

A Yes. There is one place where that is said. And I would direct you attention to column four at line 58.

Q Well, I would direction your attention to the same column, but lines 63 and 64 as well.

A Yes, that's true.

* * *

Q Dr. Williamson, we're a little bit off track here. I'm talking about the use of the word insertable in the specification in the summary of the invention. I'd like to know why one reading the word insertable in column five, lines 51 and 52, wouldn't consider that the reference to insertable into the housing means insertable into a recess in the housing? That's all I'm asking.

A Well, I've given you instances where the phrase into a housing is used, three of them, and none of them contain that connotation or gloss which you seek to put on them.

(continued...)

(FF 111) in an investigation which involves one independent claim and four dependent claims of a single patent which specification contains some six columns. The '792 patent uses the word "insertable and its cognates" frequently. Yet, as seen from the testimony of Williamson, the question whether "the only way the word insertable is used in the ['792] specification is in connection with inserting something into ... a recess or cavity" never appeared relevant to Williamson, although Berg's expert Kirk stated in ¶'s 17,

⁸ (...continued)

You took me through them one by one, and that was not there.

Q But, again, is it your testimony, then, that one having read what they could read up to column five, lines 51 and 52, would not consider the phrase insertable into the housing to mean insertable into a recess in the housing? Is that your testimony?

A I don't see any reason why one should make that assumption.

JUDGE LUCKERN:

So, your answer is yes, that is your testimony?

THE WITNESS:

If that's what he said, then the answer is yes.

Williamson so testified, even though earlier in his testimony he agreed that there was "one place" at column 4, line 58 of the '792 patent (CX-1) where there is a specific description of inserting the latch into a recess. Col. 4, lines 56 to 68, for example has three references to "insertion" or its cognates. Thus it reads:

It should be noted that the configuration of the securing arm and the shoulder of the side wall allows the latch member 40 to be inserted into the latch member receiving recess 24 through the upper surface 28 of the connector housing. As insertion occurs, securing arm 60 will be caused to move to the right as viewed in FIG. 3, thereby placing the securing arm in a stressed position. Once the latch member 60 is fully inserted into the recess 24, the free end 62 of the securing arm 60 will be resiliently displaced into the shoulder 64 of the side wall, thereby preventing the removal of the latch member 40 from the latch receiving recess 24. [Emphasis added.]

25, 30 of his revised summary of findings served on June 16, 1995 (some 20 days prior to Williamson's testimony) that Berg's connectors did not infringe the '792 patent, inter alia, due to the teaching of an insertable latch. Moreover, Williamson to answer that question when it was posed at the hearing by Berg's counsel had to read the '792 patent starting "from scratch." After reading the '792 patent from scratch his testimony was that the patentees were using the word "insertable" in a "normal sense." When Williamson was queried by the administrative law judge about what he meant by the term "normal sense," his testimony was "[t]o take something which is only -- is not belonging to a group and to make it part of a group, ... [and the] question of getting the car into a street was an example." Thus when the "Field Of the Invention" of the '792 patent states that "[i]n particular, the latch means are insertable into a housing of the connector to cooperate with respective circuit boards" (FF 85), Williamson would want the administrative law judge to find that "insertable" should be construed as making the latch means a part of a group, like getting a car into a street.

The administrative law judge finds nothing in the '792 specification which suggests that the patentees are using the word "insertable" and its cognates to make something part of a group or that the claimed phrase "latch receiving section" means merely the area or place on the connector housing that gets or accepts the latch as complainants allege. The administrative law judge, based on the abstract of the '792 patent and its figures as well as its "Field Of The Invention," "Background Of The Invention," Summary Of The Invention," and "Detailed Description Of The Invention," does find that the claimed phrase "latch receiving section,"

(FF 135) means a

structure forming an opening or recess or cavity in the connector housing such that at least the base portion of the latch is insertable in that structure.

To construe claim language, the administrative law judge should also consider the prosecution history of the '792 patent. He has broad power to look "as a matter of law" to the prosecution history of the '792 patent to ascertain the true meaning of "latch receiving section" used in independent claim 17. Markman, 52 F.3d at 979, 980, 34 USPQ2d at 1329, 1330.

The '792 patent is the result of application Serial No. 26,280 filed on March 4, 1993 which application was a continuation of abandoned application Serial No. 645,151 filed on January 22, 1991 which application was a continuation of application Serial No. 313,261 filed on February 21, 1989. (FF 79). Application Serial No. 313,261 does not contain the phrase "latch receiving section." (FF 144). In a May 8, 1990, response in Serial No. 313,261 to a first office action in distinguishing over prior art, it was represented that:

Sugimoto et al, has an elastic retaining member provided therein. The retaining member 74 is constructed by an elastic plate of metal or plastic which has a generally Y-shaped configuration. A pair of side arm portions 76 and 76' extend from an intermediate portion, and are formed with projections 80 and 80' at the free ends thereof. The projections protrude inwardly from the arm portions and are spaced apart from each other a distance which is slightly smaller than the thickness of the printed circuit board 20. The side arm portions are elastically deformable toward and away from each other. The side arm portions have a length which is substantially equal to the depth of the vertical groove 58 in the housing structure 52.

From the foregoing descriptions, it is apparent that several differences exist between the claimed invention of this application and the invention described in Sugimoto, et al. First, the elastic retaining member of Sugimoto is completely positioned in the vertical groove of the housing. In contrast, the resilient latch of the present invention is positioned in a latch receiving recesses [sic] with a portion of the resilient latch extending from the latch receiving recess to the board receiving opening 20. In fact, the portion of the resilient latch

which projects from the latch receiving recess is essential to the operation of the connector. If the latch were completely retained in the recess, as taught by Sugimoto, the latch would be useless to the operation of the connector. [Emphasis added]

(FF 157). AMP's language that the resilient latch of the "present invention" is positioned in a latch receiving recess in the prosecution of an application, which with two other continuation applications, led to the issuance of the '792 patent (FF 142 to 194) lends support for the conclusion that the resilient latch of the invention of the '792 patent is positioned in a structure forming an opening or recess or cavity in the connector housing such that at least the base portion of the latch is insertable in that structure.

On January 21, 1991, U.S. Patent No. 4,986,765, issued from Serial No. 313,261. (FF 79). The '765 patent contains four independent claims each of which is directed to an "electrical connector." Significantly, each of those claims defines "a latch receiving cavity" or "a latch receiving recess" or "opening" in the connector housing for receiving the latch. (FF 80). While the '792 patent resulted from Serial Nos. 645,151 and 26,280, in addition to Serial No. 313,261, each of Serial No. 645,151 and 26,280 is a continuation application of Serial No. 313,261 and hence each of Serial Nos. 645,151 and 26,280 can have no matter not found in Serial No. 313,261.⁹ (FF 79). Hence the administrative law judge finds AMP's comments as to what is disclosed as the invention in Serial No. 313,261 relevant to what is disclosed as the

⁹ Complainants have not admitted that there is new matter in either Serial Nos. 645,151 and 26,280. Such an admission could subject the claims in issue to a rejection on new matter because they are directed to subject matter not originally disclosed. See Chisum Patents, §11.05. If the '792 patent is not entitled to the filing date of February 21, 1989 of Serial No. 313,261, additional prior art may be used to reject the claimed subject matter in issue.

invention in the '792 patent.

It was not until an amendment filed on April 14, 1992 in the prosecution of application Serial No. 645,151 that the phrase "latch receiving section," through the addition of claim 34, first originated. (FF 163). The pertinent section of claim 34, as introduced into the prosecution through the amendment of April 14, 1992, read:

a latch receiving section provided near an end of the housing adjacent the card receiving slot of the housing, said section having at least one wall

(FF 163). It is claim 34 that gave rise to claim 17 in issue (FF 127) and the claimed phrase "latch receiving section."

In the remarks section of the amendment of April 14, 1992, the same argument was made, as was made in the May 8, 1990 response in Serial No. 313,261, for maintaining that the claimed subject matter is not anticipated by Sugimoto. Thus it was stated:

Sugimoto et al has an elastic retaining member provided therein. The retaining member 74 is constructed of an elastic plate of metal or plastic which has a generally Y-shaped configuration. A pair of side arm portions 76 and 76' extend from an intermediate portion, and are formed with projections 80 and 80' at the free ends thereof. The projections protrude inwardly from the arm portions and are spaced apart from each other a distance which is slightly smaller than the thickness of the printed circuit board 20. The side arm portions are elastically deformable toward and away from each other. The side arm portions have a length which is substantially equal to the depth of the vertical groove 58 in the housing structure.

From the foregoing descriptions, it is apparent that several differences exist between the claimed invention of this application and the invention described in Sugimoto, et al. First, the elastic retaining member of Sugimoto is completely positioned in the vertical groove of the housing. In contrast, the resilient latch of the present invention is positioned in latch receiving recess, with a portion of the resilient latch extending from the latch receiving recess to the board receiving slot 20. In fact, the position of the resilient latch which projects from the latch receiving recess is essential to the operation of the connector. If the latch were completely retained

in the recess, as taught by Sugimoto, the latch would be useless to the operation of the connector.

(FF 165). On May 27, 1992, AMP filed a supplemental amendment in Serial No.

645,151. The remarks section of the amendment stated:

The remarks in the Amendment mailed April 14, 1992 contain an error. At pages 19 and 20 they refer to a latch receiving 'recess.' However, claim 35 [sic ¹⁰] and 58, and the claims that depend therefrom, do not recite a latch receiving 'recess,' but rather a latch receiving 'section.' As a result, applicants ask that the examiner consider the remarks at page 19, lines 7, 8, 10, and 12 and page 20, line 6 as referring to a 'latch receiving recess' or a 'latch receiving section.' While the terms 'recess' and 'section' are not synonymous, applicants' remarks with respect to the prior art Sugimoto patent apply to claims including a latch receiving 'recess' as well as those including a latch receiving 'section.'

Also, certain claims have been amended to correct typographic errors. New Claims 63--75 are presented to claim the invention in an alternative fashion. The remarks in the prior Amendment support the patentability of these new claims as well.

For the foregoing reasons, applicant submit that claims 20-75 currently presented are patentable over the prior art and earnestly solicit an early allowance (FF 175).

The remarks at page 19, lines 4-13 dated April 14, 1992 which encompass certain lines AMP referenced in the supplemental amendment dated May 27, 1992, read:

First, the elastic retaining member of Sugimoto is completely positioned in the vertical groove of the housing. In contrast, the resilient latch of the present invention is positioned in a latch receiving recess with a portion of the resilient latch extending from the latch receiving recess to the board receiving slot 20. In fact, the portion of the resilient latch which projects from the latch receiving recess is essential to the operation of the connector. If the latch were completely positioned in the recess as taught by Sugimoto, the latch would be

¹⁰ Claim 35 (now claim 18 in issue) read: "An electrical connector as recited in claim 34 wherein the latch member is a metal member." (FF 164). Hence it is assumed that AMP's solicitor here intended independent claim 34 which contains the language "latch receiving section" rather than dependent claim 35.

useless to the operation of the connector.

(FF 165).

As seen from AMP's response on April 14, 1992, supra, when AMP initially introduced the phrase "latch receiving section" into the '792 patent, in distinguishing over the cited Sugimoto prior art, AMP's language is substantially identical to language used by AMP in Serial No. 313,261 in its May 8, 1990 response, supra. Thus, in each of the May 8, 1990 response and the April 14 response, each of the inventions disclosed in Serial No. 313,261 and 645,151 was distinguished over Sugimoto in exactly the same way.

In Sugimoto, as seen for example in Fig. 2 of Sugimoto, there is disclosed an "elastic retaining member" 74, as pointed out by AMP to the Examiner on May 8, 1990 and April 14, 1992, which is positioned within "side wall portions 56 and 56' forming an elongated groove 58 therebetween" of the housing structure 52, as described at col. 5, lines 20-23. (RBX-129). The side arm portions 76 and 76' of the elastic retaining member, as pointed out by AMP to the Examiner on May 8, 1990 and April 14, 1992, are "formed with projections 80 and 80'," said projections "protrude inwardly from the arm portions" and are spaced at a distance that is "slightly smaller than the thickness of the daughter board 20," and said side arm portions are of "a length which is substantially equal to the depth of the vertical groove 58 in the housing structure 52," as pointed out by AMP to the Examiner on May 8, 1990 and April 14, 1992, and as described at col. 6, lines 27-30, and as illustrated in Fig. 2. (RBX-129). Thus, as AMP argued to the Patent Office on May 8, 1990 in Serial No. 313,261 and on April 14, 1992 in Serial No. 645,151, Sugimoto discloses a latch positioned completely within a "groove" in

the housing¹¹ (which Fig. 2 of Sugimoto shows is an opening or recess or cavity in the housing), while the '792 patent, using AMP's language in its May 8, 1990 response in Serial No. 313,261 and in its April 14, 1992 response in Serial No. 645,151, discloses:

resilient latch... positioned in a latch receiving recess, with a portion of the resilient latch extending from the latch receiving recess ... [where] the portion of the resilient latch which projects from the latch receiving recess is essential to the operation of the connector. If the latch were completely positioned in the recess, as taught by Sugimoto, the latch would be useless to the operation of the connector. [Emphasis added]

Hence, the administrative law judge finds that AMP's language to the Examiner not only with respect to Serial No. 313,261 which led to the issuance of the '765 patent but also with respect to Serial No. 645,151 which led to the issuance of the '792 patent was contrasting the structure in Sugimoto where the elastic retaining member was completely positioned in an opening, cavity or recess in the housing to the structure disclosed in the claims of '765 patent and in claim 34, which eventually became claim 17, of the '792 patent in which only a portion of a latch was positioned in a recess or opening or cavity.

While on May 27, 1992, in the supplemental amendment in Serial No. 645,151, AMP represented that the terms "recess" and "section" are not synonymous, significantly AMP represented to the Examiner that its remarks made in the April 14, 1892 amendment with respect to the prior art Sugimoto patent still apply. (FF 175). There was no representation by AMP to the

¹¹ It is noted that the elastic retaining member disclosed in Sugimoto (RBX-129) includes a "catch portion 82," which does extend outside the elongated groove 58. Catch portion 82 of the elastic retaining member of Sugimoto would correspond to the portion of the separate resilient latch described in the '792 patent at col. 5, lines 10-12 as a "mounting section 44 [which] extends beyond the bottom surface 16 of the base 12 to cooperate with a printed circuit board (mother board)."

Patent Office that "latch receiving section" meant merely an area or place that gets or accepts the latch, as complainants now argue, or meant making the latch merely a part of a group as Williamson so testified. Moreover, there was no representation to the Patent Office that AMP's arguments which it made to the Examiner in its April 14 and May 27 1992 responses in Serial No. 645,151 viz.:

First, the elastic retaining member of Sugimoto is completely positioned in the vertical groove of the housing. In contrast, the resilient latch of the present invention is positioned in a latch receiving recess [section] with a portion of the resilient latch extending from the latch receiving recess [section] to the board receiving slot. 20. In fact, the portion of the resilient latch which projects from the latch receiving recess [section] is essential to the operation of the connection. If the latch were completely positioned in the recess [section], as taught by Sugimoto, the latch would be useless to the operations of the connector (Emphasis added)

to distinguish the claimed subject matter from Sugimoto can be ignored when considering the language "latch receiving section" in independent claim 17 in issue.

Complainants' Williamson testified (Tr. at 2213, 2214):

- Q. So, don't you think one of ordinary skill in the art, reading the language that you referred to in column five, lines 51 and 52 [of the '792 patent] would read the word insertable into the housing as meaning inserted into a recess in the housing?
- A. No, I don't.
- Q. And why is that?
- A. Well, we can start with the file history where the point was made very clear to the examiner that - - he was told that section and recess are not synonymous. And it was brought to his attention, when the claim 17 was put there, and he did not have a problem with that.

It was also brought to his attention in the question of novelty over the prior art where the arguments put forward against the Sugimoto patent, for example, were

referred to by the applicants, and the examiner was invited to read those arguments as containing the words latch receiving section, as well as the words latch receiving recess, and he had no problem with that.

Williamson, at the hearing, made no attempt to rationalize how the arguments, supra, made to the Examiner to distinguish the claimed invention from Sugimoto, would be applicable if "latch receiving section" were taken to mean "an area or place that gets or accepts a latch" or mean merely "making the latch a part of a group." Instead, Williamson stated, in a conclusory fashion, that in "arguments put forward against the Sugimoto patent . . . the examiner was invited to read those arguments as containing the words latch receiving section, as well as the words latch receiving recess, and he had no problem with that." Moreover, complainants made no attempt to define the phrase "latch receiving section" for the Examiner, other than making the statement that "recess" and "section" were not synonymous, and then arguing that the "remarks with respect to the prior art Sugimoto patent apply to claims including a latch receiving 'recess' as well as those including a latch receiving 'section.'" (FF 175). Complainants should not be able to argue one construction of claim language during prosecution, and then argue an alternate construction against accused infringers. Southwall 54 F.3d at 1574, 34 USPQ2d at 1677. This would allow an applicant to "deliberately . . . narrow the scope of examination to avoid during prosecution scrutiny by the PTO of subject matter with the objective of more quickly obtaining a patent . . . and then obtain in court . . . a scope of protection which encompasses that subject matter." Genentech, 29 F.3d at 1564, 31 USPQ2d at 1167.

On October 2, 1992, the Examiner, in an Office action, in view of the arguments made by AMP in its April 14, 1992, response, supplemented by AMP's

May 27, 1992 response dropped his rejection of the claimed subject matter on the Sugimoto patent but rejected all the claimed subject matter "under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of [AMP's] Patent No. 4,986,765." (FF 177). All the independent claims of the '765 patent are directed to an electrical connector having a latch receiving recess, cavity or opening. (FF 80). The administrative law judge finds that this shows the significance of a latch receiving recess, opening or cavity disclosed in the '792 specification which is substantially the same as the specification for the '765 patent.¹²

On March 2, 1994, in a preliminary amendment filed in Serial No. 026,280, the last of the chain of applications that led to the issuance of the '792 patent, AMP amended claim 34, inter alia, by deleting the phrase "said section having at least one wall" from the latch receiving section clause of the claim. AMP additionally filed a terminal disclaimer, disclaiming any part of any patent that would grant on "this application [Ser. No. 026,280] that would extend beyond the expiration date" of the '765 patent. AMP also added new claims 78 and 79 which ultimately issued as claims 30 and 31 of the '792 patent and which read:

78. An electrical connector as recited in claim 34 wherein the latch receiving section includes a base and at least one wall.

79. An electrical connector as recited in claim 78 wherein the latch receiving section includes a recess defined by a base and four walls.

(FF 179, 180). It was argued that those amendments "clarify the claims, and remove unnecessary and superfluous language and that they do not add any new

¹² It has not been alleged that the specification of the '792 patent when compared to the specification of the '765 patent contains any new matter.

matter to the application "and that new independent claims 78 and 79 are directed to "features of the specific embodiment disclosed in the Detailed Description of the Invention . . . [and] contain no new matter." There was no attempt to modify the argument, supra, made on April 14, 1992, as supplemented on May 27, 1992, such that the Examiner was told that "latch receiving section" merely means an area or place on the housing that gets or accepts the latch and that, it was unnecessary, to make any distinction as to what portion of the latch is in the latch receiving recess or section, as was done in the April 14, 1992, response as supplemented on May 27, 1992.

On May 27, 1994, applicants deleted the phrase "at least one wall of" in that portion of amended claim 34 which had read: "the latch positioned in the latch receiving section such that at least one wall of the latch receiving section cooperates with the latch to limit movement of the latching portion in a direction transverse to the length of the card receiving slot." (FF 192). Again, no attempt was made to modify the April 14, 1992 remarks as supplemented by the May 27, 1992 supplemental amendment.¹³ On June 14, 1994 a notice of allowance was mailed and thereafter the '792 patent issued on January 24, 1995 with twice amended claim 34, now independent claim 17 in

¹³ While AMP's patent solicitor, in the course of prosecution, made certain amendments to the specification of the '792 patent (FF 167, 168, 169), for example changing "[e]ach latch" to "[o]ne embodiment of the latch" and changing "[o]ne of the most significant advantages" to "[a]nother advantage," no attempt was made to modify the disclosure of the "Field of the Invention" section of the '792 patent such that it is taught that the latch means may now be outside the housing or to modify the "Detailed Description of the Invention" section such that while the latch member 40 is insertable into the latch member receiving recess 24 (col. 4, lines 58 to 59) and is therefore not molded from the same plastic material as the housing and can be usable over many more cycles (col. 5, lines 51 to 55) it is not a requirement that the latch member 40 be insertable into a recess or opening or cavity. Moreover, AMP made no admission that its amendments contained new matter.

issue. (FF 77).

Based on the foregoing, which takes into account the present record, the administrative law judge construes "latch receiving section" in independent claim 17 as a structure forming an opening or recess or cavity in the connector housing such that at least the base portion of the latch is insertable in that structure.

Complainants argued, relying on the doctrine of claim differentiation, that the addition of dependent claims 78 and 79 (now claims 30 and 31 of the '792 patent) on March 2, 1994 mandates that the phrase "latch receiving section" in independent claim 34 (which became claim 17 in issue) refers merely to an area or place that gets or accepts the latch, and as a consequence should not be construed as a structure that allows the latch to be inserted into a recess or opening or cavity in the housing. (CPostR at 7). Claim differentiation however is merely a guide and not a rigid rule. Autogiro Co. of America v. United States 384 F.2d 391, 404, 155 USPQ 697 (Ct. Cl. 1967). See Moleculon Research Corp. v. CBS, Inc. 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986), cert. denied 470 U.S. 1030, 1987). Moreover, the doctrine of claim differentiation is not applicable because a "recess" or "opening" or "cavity" is broader than a recess with a "base and at least one wall," or with a "base and four walls." For example, the recess or opening or cavity could have no base. AMP, in obtaining the '792 patent, in effect so admitted, as evidenced by independent claim 1, not in issue, of the '792 patent which recites a latch receiving recess, and its dependent claims 7 and 8 which recite a recess with a "base and at least one wall" and a recess "defined by a base and four walls." (FF 131(a)).

While complainants argued that it is improper to read into the claims

the preferred embodiment disclosed in the patent (CPost at 20), the administrative law judge has not limited claim 17 to the structure disclosed in the preferred embodiment. Rather, he has used the specification and prosecution history to define the claimed phrase "latch receiving section" as done in Unique Concepts Inc. v. Brown 939 F.2d 1558, 19 USPQ2d 1501 (1991) (Unique Concepts). In Unique Concepts Unique appealed from a final judgment of a district court holding that certain products produced by defendants do not infringe Unique's patent. The sole independent claim on appeal was to an assembly of border pieces for creating a framework attachable to a wall or other flat surface for mounting a fabric sheet which is cut to dimensions at least sufficient to cover the surface, said assembly comprising linear border pieces and "right angle corner border pieces." The district court had held, inter alia, that the mitered linear pieces used by the alleged infringer did not meet the claim language "right angle corner border pieces," either literally or under the doctrine of equivalents. The Federal Circuit, in affirming the district court, pointed out, inter alia, that the specification showed that the claim language "right angle corner border piece" means a single preformed piece, the specification repeatedly referring to certain preformed pieces using only the words "right angle" border pieces or "corner pieces." In addition, it was pointed out that the drawings showed only preformed corner pieces and no mitered pieces. The Court further pointed out that the prosecution history of the patent in issue supported the district's court's decision; that during the prosecution the Examiner understood the right angle corner pieces of claim 1 to be distinct from mitered linear pieces because he initially rejected the claims, citing and referring to other references as showing preformed, right angle corner pieces or braces; and that

the applicant overcame the rejection by arguing the advantage of simplification for the do-it-yourselfer.

Complainants have argued, not before the Patent Office but in this investigation, that the term "latch receiving section" covers any "area or place that gets or accepts the latch and is in no way limited . . . to mean a recess or a cavity." (CPost at 14). The specification of the '792 patent does not use the term "latch receiving section." However, as in Unique Concepts, the specification and drawings of the '792 patent only disclose one type of "latch receiving section," which consists of either "a latch receiving recess," a "latch receiving opening," or a "latch receiving cavity." Thus, the repeated use of the terms "recess," "opening" and "cavity" to describe the structure provided near an end of the housing adjacent the card receiving slot, into which the separate latch is inserted, makes clear that the claim term "latch receiving section" refers to a recess or opening or cavity. Furthermore, as in Unique Concepts, and as discussed supra, AMP overcame the Examiner's rejection based on the Sugimoto reference by arguing, inter alia, the advantages of a separate latch with a portion of that latch extending outside the latch receiving section, thus using the claimed term "latch receiving section" to describe a recess or opening or cavity in the housing that was different from the recess or opening or cavity disclosed in Sugimoto.

- (ii) "a separate resilient latch having a base portion which is positioned in the latch receiving section"

Complainants argued that the term "resilient" as it is used both in its normal engineering sense and in the '792 patent is a material property and means that the structure to which it is referring (the latch) will return to its original shape after being deformed. (CPost at 13, 14).

Respondent Berg argued that a separate resilient latch should be interpreted as a separable piece distinctly different from the housing and that the separate piece is composed of a resilient section, which resilient section includes a base portion, a mounting section and a latching structure; that the base portion is part of a resilient arm and not affixed in any way to the housing, and that, regardless of the configuration, the base portion of the latch moves. Berg argued that the words "which is positioned in the latch receiving section" should be interpreted as a cavity in which the latch enters. (RBPost at 47-49).

The staff argued that, in view of the specification of the '792 patent, a separate latch is one that is manufactured separate from the manufacture of the housing of the electrical connector; that the term "resilient" refers to the characteristic of the latch that allows it to be bent and to spring back to an original position after being disengaged; that the "base portion" merely requires that a portion of the latch have a section that supports the latch with respect to the housing of the connector. The staff also argued that the phrase "latch positioned in the latch receiving section" merely requires that the latch be positioned in one section of the connector as opposed to another section of the connector. (SPost at 7-11, 14-15).

Based on the specification of the '792 patent, the administrative law judge construes the claimed term "latch" as a structure which cooperates and maintain a daughter board in the operational position." (FF 139). He construes the claimed term "separate . . . latch" as a latch that is manufactured separate from the manufacture of the housing of the electrical connector. (FF 140). The claimed term "resilient latch" is construed to mean that at least a portion of the latch will not remain permanently deformed when

it is engaged or disengaged, but rather when disengaged will snap back in place (FF 138). The claimed term "base portion" is construed as a part at the base of the resilient section of the latch. (FF 141). The claimed phrase "base portion . . . positioned in the latch receiving section," consistent with the administrative law judge's construction of the term "latch receiving section" is construed as the base portion of the latch being positioned in an opening cavity or recess of the housing.

- (iii) "the latch positioned in the latch receiving section, such that the latch receiving section cooperates with the latch to limit movement of the latching portion in a direction transverse to the length of the card receiving slot"

Complainants argued that the phrase in issue means that the latch receiving section cooperates with the latch to limit movement of the latching portion in any direction which is perpendicular to the longitudinal axis of the slot, i.e. movement of the latching portion toward the back or front of the connector housing. (CRPF 194). Berg, referring to the whereby clause of claim 17 (FF 127) with its words "after" and "maintain," argued that it must be concluded that the cooperation referred to by the phrase in issue has to be in a direction to keep the card in position after it has been rotated to its second position. (RBPost at 50).

The "whereby" clause of claim 17 starts a new paragraph of claim 17 and is not part of the previous paragraph of the claim which ends with a semicolon. (FF 127). Accordingly, the administrative law judge interprets the whereby clause as disclosing to a person of ordinary skill in the art what the claim has achieved. Hence, the phrase in issue is construed as meaning that the latch receiving section cooperates with the latch to limit movement of the latching portion in a direction which is perpendicular to the

longitudinal axis of the card receiving slot, and is not limited to any point in time.

b. 35 U.S.C. § 102(f)

Under 35 U.S.C. § 102(f), a patent is invalid if the named inventor "did not himself invent the subject matter sought to be patented." 35 U.S.C. § 102(f). An inventor is not entitled to a patent if "he obtained a complete idea for the invention from another source." Chisum, Patents § 5.03[3][d] (emphasis in original). This requires the party challenging validity to demonstrate "that the named inventor in the patent acquired knowledge of the claimed invention from another, or at least so much of the claimed invention as would have made it obvious to one of ordinary skill in the art." Braiding, 970 F.2d at 882, 23 USPQ2d at 1626. To establish derivation under 35 U.S.C. § 102(f) "the person attacking the patent must establish prior conception of the claimed subject matter and communication of the conception to the adverse claimant." Price v. Symsek, 988 F.2d 1187, 1190 26 USPQ2d 1031, 1033 (Fed. Cir. 1993) (Price).

Respondent Berg argued that the evidence persuasively establishes a substantial question whether the invention of the asserted claims of the '792 patent was derived from the information disclosed in

(RBPost at 61). AMP argued that

(CPostR at 21). The staff argued that "the evidence of record indicates that there is a reasonable likelihood that this derivation defense will fail." (SPostR at 5).

The "conception" of an invention is defined as "the formation in the

mind of the inventor, of a definite and permanent idea of the complete and operative invention," Burroughs Wellcome Co. v. Barr Laboratories, Inc., 40 F.3d 1223, 1228, 32 USPQ2d 1915, 1919 (Fed. Cir. 1994) petition for cert. filed, 63 USLW 3707 (Mar. 15, 1995), quoting Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1376 231 USPQ 81, 88 (Fed. Cir. 1986) (Hybritech). It is complete when "the idea is so clearly defined in the inventor's mind that only ordinary skill would be necessary to reduce the invention to practice." Id. 40 F.3d at 1228, 33 USPQ2d at 1919. In addition, "in establishing conception a party must show possession of every feature recited in the [claim], and every limitation of the [claim] must have been known to the inventor at the time of the alleged conception." Coleman v. Dines, 754 F.2d 353, 359, 224 USPQ 857, (Fed. Cir. 1985).

During the relevant time frame

(FF 228-234, 236, 238).

(FF 210, 236,

238). Furthermore, the administrative law judge finds that a

would be understood by persons of ordinary skill in the art at the time to include only rotate and latch connectors. (FF 207, 210, 228, 232).¹⁴

¹⁴ The administrative law judge finds complainants' Williamson's testimony on this point to be consistent with this finding. Complainant has put Williamson forward as one of the world's leading authorities on electrical connectors and he did not know of any

while he would not rule out the possibility that

Moreover,

(continued...)

(FF 237). It thus teaches to one
of ordinary skill in the art

(FF 195, 209-216). Accordingly,
the administrative law judge finds that the

is a documented conception containing all elements of at least
claims 17 and 18 of the '792 patent, and thus that it anticipates at least
those claims. He also finds that the pre-dates the

(FF 217, 236).¹⁵

In addition to establishing conception, respondents must prove that the
concept of using separate resilient latches was communicated to the inventors
of the '792 patent. Furthermore, this communication must have been
"sufficient to enable one of ordinary skill in the art to construct and
successfully operate the invention." Hedgewick v. Akers, 497 F.2d 905, 908,
182 USPQ 167, 170 (CCPA 1974); Agawam Woolen v. Jordan, 74 U.S. (7 Wall.) 583

¹⁴(...continued)

(FF 219).

(FF 197).

(1868).

Berg has not supplied any direct evidence of communication. (RBPostR at 43-47). Berg, however, came forward with circumstantial evidence in an attempt to prove communication. Berg has argued that disclosure of the information contained in the

(FF 198, 254, 255). However, respondents have pointed to no evidence in the record that any information similar to that contained in the

During the relevant time period

(FF 233-235, 240, 241). Specifically, during the relevant time period, there were

(FF 231, 240-242, 248-250, 253, 259, 260).¹⁶

(FF 236, 237).

(FF 202).¹⁷

16

(FF 241).

17

(FF 229). In addition,
(FF 240, 241, 250, 256).

(continued...)

256).

(FF 223, 239).

In determining the sufficiency of communication, "[a]ll the circumstances in the record must be considered . . . mere proof of motive and opportunity (e.g. access) is not sufficient to carry the burden of proving derivation." Hedgewick 497 F.2d at 908, 182 USPQ at 170, citing Bartsch v. Baker, 134 F.2d 487, 57 USPQ 143 (CCPA 1942), and Rider v. Griffith, 154 F.2d 193, 69 USPQ 112 (CCPA 1946). In addition "[a]s with the conception element of [the prior inventor's] case, corroboration is required to support . . . testimony regarding communication. . . ." Price, 988 F.2d at 1190, 26 USPQ2d at 1033. The administrative law judge finds that all that Berg has in evidence, in support of the communication element of 35 U.S.C. § 102(f), shows that the inventors of the '792 patent may have had access to the information contained in the . In contrast, complainants have relied on deposition testimony, including that of and , and to support their claim that

(FF 200, 202-206, 265-271). The administrative law judge has not had the opportunity to observe at the hearing any of the individuals that were deposed on this issue, and hence has no way to judge their credibility.

¹⁷(...continued)

(FF 204-206).

While the administrative law judge recognizes that not all witnesses relevant to this issue have been deposed, for example (FF 218), the administrative law judge finds that this fact, in combination with the circumstantial evidence presented by Berg, does not raise a "substantial question" as to the validity of the '792 patent under 35 U.S.C. § 102(f).

c. U.S.C. § 103

Respondents have argued that the subject matter of the '792 patent is invalid under 35 U.S.C. § 103. A patent is invalid under 35 U.S.C. § 103 if:

the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Id. The test for obviousness requires four factual determinations, namely (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. Graham v. John Deere Co., 383 U.S. 1, 17 (1966); See also Hybritech, 802 F.2d at 1382-84 231 USPQ at 83-85.

(i) Scope And Content Of The Prior Art

The term "prior art" within the meaning of 35 U.S.C. § 103 is generally restricted to those things defined under 35 U.S.C. § 102. Chisum, Patents § 5.03[3] [g] [I]; see e.g. In re McKellin, 529 F.2d 1324, 1330 188 USPQ 428, 433 (CCPA 1976) but see In re Fout, 675 F.2d 297, 300, 213 USPQ 532, 534 (CCPA 1982) (Party admissions are also a source of section 103 prior art).

Berg, in support of its obviousness contentions, has relied on (1) the

(2) prior art rotate and latch SIMM

connectors having plastic latches as shown in the Grabbe and Regnier patents;

(3) prior art non-rotate and latch electrical connectors having metal latches as disclosed in the Taplin, Martineck, Sugimoto, Nishikawa and Cobaugh patents and ; and (4)

, and which Berg argued were on sale and/or in public use more than one year prior to the filing date of the '792 patent. (RBPost at 68-69).

Complainants have argued that respondents' arguments on the alleged obviousness of the '792 invention have no weight because the , as well as the , and the are not 35 U.S.C. § 102 prior art. (CPost at 42). The staff argued that while "the Grabbe patent, the Taplin patent, and the Cobaugh patent are the most pertinent prior art references for purposes of analyzing the alleged obviousness of the asserted claims," there is a reasonable likelihood that the asserted claims of the '792 patent will not be found invalid for obviousness. (SPost at 17, 23).

(a) Prior Art Rotate And Latch SIMM Connectors

Prior art rotate and latch SIMM connectors that teach the use of integral plastic latches include the Grabbe U.S. patent No. 4,737,120 (FF 494-496,500) and Regnier U.S. patent No. 4,713,013. (FF 494, 497, 500). AMP's Williamson, and BERG's Strich have testified that either Grabbe or Regnier disclose all of the preamble limitations of claim 17 that appear before the phrase "the electrical connector comprising." (FF 498). The staff and AMP agree that this prior art "teaches integral plastic latches on rotate and latch connectors." (CPost at 43; SPost at 20). However, they contend that "Grabbe and Regnier do not have separate latches or latch receiving sections." Id. The administrative law judge finds that those references disclose rotate

and latch connectors with all of the preamble limitations of claim 17 in issue. (FF 494-498). He also finds that those references, which were before the Examiner in the prosecution of the '792 patent; (FF 499), disclose a location of the latch at the end of the connector housing adjacent the card receiving slot (FF 495-497, 501).

(b) Prior Art Non-Rotate And Latch Connectors

U.S. Patent No. 3,803,533 to Taplin (Taplin) and U.S. Patent No. 3,149,897 to Martineck (Martineck), which were before the Examiner, (FF 499) disclose electrical connectors for connecting a daughter card or the like¹⁸ to a mother board, or similar structure. (FF 504-506, 508). Taplin teaches resilient metal clips, positioned at the ends of a connector block, as "devices for releasably connecting the edges of two electrical circuit boards together such that the relationship . . . is resistant to accidental movement." (FF 506). Martineck teaches separate metal latches on two ends of an electrical connector for "electrically connecting printed cable to printed cable or printed cable to printed board. (FF 504, 505).

The U.S. patent No. 4,781,612 to Thrush, which was before the Examiner, teaches the use of integral plastic latches (or clips) to "hold a [SIMM] module in a fully inserted position" in a non-rotate and latch connector. (FF 502). Those latches (or clips) are similar in function to the "latches" or clips disclosed in the Taplin patent and Thrush low profile Diplomate connector, specifically to "hold the [SIMM] module in a fully inserted position, or "retain [the SIMM module] in the socket,"

(FF 481,

¹⁸ The Martineck patent is directed to a printed cable connector, and not a connector that connects a daughter card to a mother board. (FF 504, 505).

482, 491, 502, 503).

U.S. Patent No. 4,129,351 to Sugimoto, which was before the Examiner, (FF 499) discloses an electrical connector for printed circuit boards with at least one separate elastic retaining member for holding a printed circuit board in a predetermined fixed position. (FF 515). U.S. patent No. 4,362,411 to Cobaugh (Cobaugh), which was before the Examiner, (FF 499) discloses "card latching systems on zero insertion force card edge connectors . . . [having a] vertically moving upper housing so the upper ends of the spring members are cammed in and out of engagement with the card inserted in the connector." (FF 512). Thus Cobaugh discloses a connector with separate metal latches, located in a recess in the connector housing adjacent the card receiving slot. (FF 512, 513).

U.S. Patent 4,420,207 to Nishikawa (Nishikawa) discloses an electrical connector socket¹⁹ in which "lock members having . . . release portions are mounted on the base plate and engage with retainers mounted on the connector."

¹⁹ Berg argued (RBPost at 79) that the connector disclosed in Nishikawa, while not a "SIMM connector", is an integrated circuit chip connector which is directly related to SIMM connectors, as expressly recited in the Thrush patent:

The present invention relates to a socket which receives the edge of a chip carrier substrate, and more particularly to a socket for a single in-line memory module. . . .

* * *

The advance of semiconductor technology has resulted in development of chip carriers which comprise substrates on which the chips are mounted and electrically connected by fine wire leads. The substrates are plugged into sockets having resilient contact members which make contact with surface traces on the substrate.

(FF 502, 503).

(FF 509). The '207 patent thus discloses an electrical connector (or "chip carrier") that has separate metal latches (or "locking devices") located in a recess in the connector housing. (FF 510, 511). Berg has argued that Nishikawa thereby discloses "a separate metal latch mounted in a recess of the connector housing, the recess being separate from the recess containing the contacts of the connector." (RBPost at 78). The base plate of the socket has "a pair of lock members 8 which are secured to the base plate 1 at longitudinal ends thereof and which project upwardly from the base plate 1." (FF 509). The lock members disclosed in Nishikawa are necessary to establish and maintain electrical connection between the chip contacts and the connector contacts. (FF 510, 511). The '207 patent was not before the Examiner.

(c)

(FF

209-216, 237). Specifically,

(FF 237).

(d) Status Of As A Reference

As discussed supra in connection with 35 U.S.C. § 102(f), the administrative law judge finds that the was never reduced to practice, (FF 201), nor was it publicly available prior to the filing date of the '792 patent. (FF 197, 202, 203). As such, the is not prior art under 35 U.S.C. § 102. Berg has argued that prior art that "does not fall within one of the enumerated sections of 35 U.S.C. § 102 . . . is pertinent evidence to establish the level of knowledge in the art at the time of the invention and is contemporaneous evidence of the obviousness of the alleged invention."

(RBPost at 70).

There are decisions that "treat material that is not prior art in the Section 102 sense as nevertheless relevant evidence in determining the level of skill in the art and the obviousness of differences between an invention and the prior art." Chisum, Patents § 5.03[3][g][ii]. In the case of Newell Companies, Inc. v. Kenney Manufacturing Co., 864 F.2d 757, 766 9 USPQ2d 1417, 1425 (Fed. Cir. 1988) cert. denied 493 U.S. 814 (1989) (Newell), the Federal Circuit upheld a district court's grant of a directed verdict, finding the patent for an extensible and retractable roll window shade invalid for obviousness under 35 U.S.C. § 103. Id. 864 F.2d at 768, 9 USPQ2d at 1427. The dispositive issue in Newell was whether the patented invention would have been obvious from prior art which included individual elements of the invention. The patentee had argued, inter alia, that the district court erred in considering an internal memorandum of one of the alleged infringer's employees proposing the combination of prior art elements found in the patent. Id. 864 F.2d at 767, 9 USPQ2d at 1425. The Federal Circuit held that this internal memorandum, while "not technically prior art," was admissible as evidence that others of ordinary skill in the art had proposed the claimed invention, prior to the patentee's invention. Id. 864 F.2d at 766, 9 USPQ2d at 1425. Thus, the Federal Circuit found that the district court "resisted hindsight reconstruction of the invention and did not rely simply on the individual elements of the claim being in the prior art but also on evidence of the level of skill in the art with respect to the making of the combination." Id. The Court in Newell cited its prior decision in Thomas & Betts Corp. v. Litton Systems, Inc., 720 F.2d 1572, 220 USPQ 1 (Fed. Cir. 1983) (Thomas & Betts). In Thomas & Betts, the Federal Circuit found that unpublished internal

marketing and engineering criteria, supplied to the inventor, while "not technically prior art, were, in effect, properly used as indicators of the level of ordinary skill in the art to which the invention pertained." Id. 720 F.2d at 1580, 220 USPQ2d at 7. See also, Gould v. Quigg, 822 F.2d 1074, 1078, 3 USPQ2d 1302, 1305 (Fed. Cir. 1987) (later dated publication offered as evidence of the level of ordinary skill in the art); In re Merck, 800 F.2d 1091, 1095 231 USPQ 375, 379 (Fed. Cir. 1986); In re Farrenkopf, 713 F.2d 714, 219 USPQ 1 (Fed. Cir. 1983). As in the Newell case, claim 17 of the '792 patent in issue is a combination of elements found in the prior art, namely a rotate and latch SIMM connector, found in the Grabbe and Regnier patents, and separate latches used to secure a daughter card or the like, found in the Taplin, Martineck, Cobaugh, and Sugimoto patents.

Thus, the administrative law judge finds that respondents have raised a "substantial question" involving whether the _____ is an indicator of "evidence of the level of skill in the art with respect to the making of the [claimed] combination." 864 F.2d at 766, 9 USPQ2d 1425.²⁰

²⁰ Simultaneous invention is not necessarily dispositive of the obviousness inquiry, as the "near simultaneous invention by two or more equally talented inventors working independently . . . may or may not be an indication of obviousness when considered in light of all the circumstances." Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick, 730 F.2d 1452, 1458, 221 USPQ 481, 487 (Fed. Cir. 1984) (Lindemann). However in Lindemann, two of the three individuals who independently created the invention were co-inventors of the patent in issue, while the third "simultaneous invention" occurred more than five years after the patented invention. The Federal Circuit has criticized a district court's reliance on publications and patent applications dated more than a year after the filing date of the patent in issue, and roughly two years after conception of the invention. Hybritech,

(continued...)

(e) Thrush Dual Low Profile Diplomate

The Thrush Low Profile Diplomate SIMM teaches the use of metal clips (latches)²¹, in a separate recess, on a "straight-in" connector. (FF 441, 482, 483, 484). The "Thrush Diplomate" consists of two engineering drawings, and a Preliminary Invention Disclosure ("PID") prepared by AMP engineer Roger Thrush. (FF 482, 483). Initially, with respect to the

(FF 481).

(FF 466).

483, 484).

(FF 469, 482-484).

(FF 482,

(FF

482, 483). The Thrush low profile Diplomate was accompanied by a declaration to the Patent Office which stated, inter alia, that it was not offered for

²⁰(...continued)

802 F.2d at 1378, 231 USPQ at 90-91. In the present investigation, the

(FF 217, 236) and is thus probative of the level of knowledge as of the time the invention was made.

²¹ AMP has argued that the "module clips" of the Thrush Diplomate are not "latches" as the term is used in the '792 patent. (CRFF 295). However, the PID states that the "module clip is a stamped and formed spring latch which inserts into an opening in the housing." (FF 482). (Emphasis added). Thus the administrative law judge will use the terms "clip" and "latch" to describe the "module clip" of the Thrush Diplomate.

sale, and as such was not § 102(b) prior art. (FF 187, 492, 493).²²

(f) Status Of Thrush Diplomate As A Reference

AMP argued that the Thrush low profile Diplomate is not prior art under 35 U.S.C. § 102. (CPost at 39). As a basis, complainants argued that (1) the Thrush Diplomate did not rise to the threshold level of an "invention" and (2) the Thrush Diplomate was never "offered for sale" or subject to "public use." Berg argued that the Thrush low profile SIMM was "on sale and in public use in 1986" more than one year prior to the filing date of the '792 patent, and thus qualifies as prior art under 35 U.S.C. § 102(b). (RBPost at 75).

An invention which was "in public use or on sale in this country, more than one year prior to the date of the application" is prior art under 35 U.S.C. § 102(b). The critical date for the '792 patent is February 21, 1988, which is one year prior to the filing date of Ser. No. 313,261. (FF 79)²³.

While reduction to practice is not required under 35 U.S.C. § 102(b), the offer for sale of a "mere conception" is not sufficient. UMC Electronics Co. v. U.S., 816 F.2d 647, 2 USPQ2d 1465 (Fed. Cir. 1987), cert. denied 484 U.S. 1025, 108 S.Ct. 748 (1988) (UMC); see also LaBounty Manufacturing v. I.T.C., 958 F.2d 1066, 1069 22 USPQ2d 1025, 1028 (Fed. Cir. 1992) LaBounty ("[a] section 102(b)/103 bar obviously concerns a device which is not a reduction to practice of the claimed invention"). All circumstances surrounding the alleged offer for sale, including the stage of development of the product must be considered. UMC 816 F.2d at 649, 2 USPQ2d at 1467. In

²² Berg has argued that this gives rise to inequitable conduct. That argument is addressed infra, at section VII 1(e).

²³ This assumes copendency of the '765 and '792 patents. See section VIII on "Filing Date Issue", infra.

October of 1985, AMP had developed and was quoting prices on a dual low profile SIMM connector with and without a latch. (FF 187, 493).

(FF 483, 490). By April 22, 1986, Thrush submitted to AMP a Preliminary Invention Disclosure (PID).

(FF 442, 443, 482B).

²⁴ (FF 475, 487).

The administrative law judge finds that the Thrush Diplomat had thus been developed well beyond a "mere conception."

Furthermore, the administrative law judge finds that Berg has raised a "substantial question" as to whether the Thrush Diplomat was "on sale" more than one year prior to the filing date of the '792 patent. For a reference to become prior art under 35 U.S.C. § 102(b) an actual sale is not required, as "[a] single offer to sell is enough to bar patentability whether or not the offer is accepted." A.B. Chance Co. v. RTE Corp., 854 F.2d 1307, 1310, 7 USPQ2d 1881, 1884 (Fed. Cir. 1988); In re Caveney, 761 F.2d 671, 676, 226 USPQ 1, 4 (Fed. Cir. 1985). At the hearing, Berg presented evidence that, in the 1985 to 1986 time frame,

²⁴ The Thrush Declaration submitted to the Patent Office states that "the testing results showed that the module clip idea was not worth pursuing." (FF 493).

(FF 463, 468, 473, 474, 488).

(FF 462).

25

(Emphasis in original) (FF 493(a)).²⁶

(FF 490, 491).

(FF

476). (Emphasis added).

²⁵ In 1992, AMP engineer Roger Thrush testified that,

(FF 491). The Thrush Declaration, submitted to the Patent Office, states that the October 17, 1985 IBM proposal occurred six months prior to the conception of the device described in the Thrush PID. (FF 187, 493).

²⁶ At his deposition, Thrush testified that

(FF 490). Furthermore, the Thrush September 19, 1986 PID indicates that the plastic latch invention was first "disclosed to others" on June 19, 1986. (FF 491). Thus, the administrative law judge finds that

(FF 476, 477).

Complainants argued that the Thrush Diplomate can not be found on sale, given the evidence produced at the hearing, because in Intel Corp. v. U.S.I.T.C., 946 F.2d 821, 20 USPQ2d 1161 (Fed. Cir. 1991) (Intel), a stronger factual showing was found insufficient of establish that a product was "on sale" for 35 U.S.C. § 102(b) purposes. Intel however did not involve a temporary exclusion order (TEO). In a TEO phase of an investigation, respondents need raise only a "substantial question" regarding the invalidity of the claimed invention, rather than providing "clear and convincing evidence" as required in Intel. Id. 946 F.2d at 825, 20 USPQ2d at 1169. Moreover, in the Intel case, respondents were attempting to establish a statutory bar under 35 U.S.C. § 102(b), not obviousness under 35 U.S.C. § 103.

The Federal Circuit has held an invention "on sale" where the inventor had built and tested an engineering prototype of the invention, and the patentee offered to supply the improved device in response to a Navy request for proposals, even though the technical proposal which described the invention in detail and included test results and schematic drawings was not submitted until after the critical date, and even though the Navy canceled its original request under which the proposal was made. UMC, 816 F.2d at 649, 2 USPQ2d at 1466-67. In addition, the Federal Circuit has noted that "merely offering to sell a product by way of an . . . invoice may be evidence of a definite offer for sale . . . even though no details are disclosed. That the offered product is in fact the claimed invention may be established by any

relevant evidence, such as memoranda, drawings, correspondence, and testimony." RCA Corp. v. Data General Corp., 887 F.2d 1056, 1059 12 USPQ2d 1449, 1452 (Fed. Cir. 1989). In this investigation,

(FF 476, 477, 478,

485). Thus, the administrative law judge finds that respondents have raised a "substantial question" involving whether the Thrush low profile Diplomate was "on sale" during 1986, and is thus available as § 102(b) prior art.

Even if the Thrush low profile Diplomate were not "on sale," respondents have raised a "substantial question" regarding the public availability of customer drawings of the Thrush low profile Diplomate.

(FF 442, 476).

. (FF 430,

433, 438, 442, 443, 448, 477).

(FF 470, 477, 485, 489). Even a "non-enabling reference may qualify as prior art for the purpose of determining obviousness under 35 U.S.C. § 103, but only for what is disclosed in it." Symbol Technologies Inc. v. Opticon Inc., 935 F.2d 1569, 1576, 19 USPQ2d 1241, 1247 (Fed. Cir. 1991) (Symbol Technologies). In Symbol Technologies, the Federal Circuit found that the district court erred in excluding as prior art, for use in an obviousness determination under 35 U.S.C. § 103, non-enabling "sketches and

tentative specifications" that were publicly available more than one year before the effective filing date of the patent in issue. Id.

Based on the foregoing, the administrative law judge finds that the respondents have raised a "substantial question" as to whether the Thrush low profile Diplomate, with metal latches, is available as 35 U.S.C. § 102(b)/103 prior art in considering the issue of obviousness.

(g)

449-453, 460).

(FF

(FF 450).

(FF 427, 428, 449,

450, 455).

AMP argued that the was not prior art under 35 U.C.C. § 102(b). The administrative law judge finds a decision on this issue unnecessary, in light of the similarity between the teachings of the and the Taplin and Martineck references.

(ii) Differences Between Prior Art And Claims At Issue

The prior art can be broken down into two categories. First, there are rotate and latch connectors disclosing integral plastic latches (i.e. without separate resilient latches) (Grabbe or Regnier). Second, there are the prior art electrical connectors that disclose separate resilient latches on non rotate and latch connectors (Taplin, Martineck, Cobaugh, Sugimoto,

Thrush Low Profile Diplomate and Nishikawa). Those references that

are directed to rotate and latch connectors teach the use of integral (plastic) latches, not separate metal latches. (FF 494-500). The '792 patent is explicitly directed to solving problems with connectors that use integral (plastic) latches. (FF 87). Those references that teach the use of separate (metal) latches are directed to non-rotate and latch electrical connectors. (FF 504-510, 512, 515). Also neither Taplin or Martinech has "a structure forming an opening, recess or cavity in the connector housing such that at least the base portion of the latch is insertable in that structure," and thus neither Taplin or Martineck disclose a latch receiving section. The Thrush Low profile Diplomate teaches

Furthermore, the Thrush

Diplomate discloses

(iii) Level of Skill In The Art

In defining a person of ordinary skill in the art, the administrative law judge may consider factors, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and education level of active workers in the field." In re GPAC Inc., 57 F.3d 1573, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995) (GPAC). Both complainants and respondents offered testimony that the skill level in the relevant art was an individual who had an engineering degree and some experience with electrical connectors, or someone without an engineering degree, and more practical experience working with electrical connectors. (FF 422). In addition, evidence was presented that a person of ordinary skill in the art would be aware of the physical

properties of metals and plastics. (FF 423-425).

The administrative law judge, based on the evidence, finds that a man of ordinary skill in the art, as of 1988, would have a degree in engineering and some hands on experience in the design of electrical connectors, including both rotate and latch and "straight in" connectors, or would have no degree and a greater level of experience in the art. Furthermore, the administrative law judge finds that a person of ordinary skill in the art would know the properties of both spring steel and plastics used in electrical connectors. (FF 422-425).

(iv) Secondary Considerations

Secondary considerations, or "objective indications of nonobviousness," such as long-felt need, commercial success, failure of others, copying, and unexpected results must be considered in a 35 U.S.C. § 103 determination. Graham v. John Deere Co., 383 U.S. at 17; Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 796 F.2d 443, 446, 230 USPQ 416, 419 (Fed. Cir. 1986), cert. denied 484 U.S. 823 (1987). For objective evidence to be accorded substantial weight, its proponents must establish a nexus between the evidence and the merits of the claimed invention. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1539, 218 USPQ 871, 879 (Fed. Cir. 1983). To the extent that the patentee demonstrates the required nexus, the objective evidence of nonobviousness will be accorded more or less weight. See Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 306, 227 USPQ 657, 674 (Fed. Cir. 1985), cert. denied 475 U.S. 1017 (1986). Licenses may constitute evidence of nonobviousness. Little weight, however, can be attributed to licenses if the patentee does not demonstrate "a nexus" between the invention in issue and the licenses. Stratoflex, 713 F.2d at 1539, 218

USPQ at 879. In this investigation there are indications that the claimed invention in issue solved a need in the industry. (FF 87, 519-528, 530-533). Thus, the record shows that when the connector industry decided it needed rotate-and-latch connectors, the latches were designed in plastic. When it was discovered that the plastic latches had problems the industry did everything it could to avoid losing the benefits of the plastic monolithic structure which had produced a cost-savings and minimized assembly steps. (FF 241, 242-251, 253, 534-538). Prior to the invention of the '792 patent there was a problem with breakage of the plastic latches on the plastic latch SIMM connectors and this occurred in the 1987-88 time frame. (FF 228, 247, 519-528, 530-533). In 1989 it was known throughout the industry that plastic latch SIMM connectors had a latch problem. Some customers in the field also were putting a lot of pressure on the suppliers to solve the problem associated with plastic latch SIMM connectors as quickly as possible. (FF 234, 529). Both connector manufacturers and consumers were aware of the problems associated with plastic rotate-and-latch connectors. (FF 228, 526). The claimed subject matter in issue appears to have been commercially successful. (FF 541-544). Complainants' objective evidence of nonobviousness on this ground is somewhat diminished, however, because of the requirement for a nexus and the existence of AMP's '765 patent which is not in issue in this investigation. Thus, while Molex is licensed

(FF 545, 546).

Moreover, Molex submitted to a Consent Judgment finding that it had infringed only the '765 patent. (FF 546). Also, the specification of the '765 patent is substantially identical to the specifications which led to the issuance of the '792 patent, with each of the '765 and '792 patents having the identical

initial filing date. Hence, the administrative law judge finds the required nexus somewhat clouded. Certainly the weight to be accorded complainants' secondary considerations is not what would be the weight if, for example, the Molex licence was _____ and if rotate-and-latch SIMM connectors had no commercial success until after the issuance of the '792 patent. See GPAC 57 F.3d 1573, 1580, 35 USPQ2d at 1123, 1124.

(v) Issue of Obviousness

To invalidate the '792 patent for obviousness, "the changes from the prior art . . . must be evaluated in terms of the whole invention, including whether the prior art provides any teaching or suggestion to one of ordinary skill in the art to make the changes that would produce the patentee's . . . device." Northern Telecom Inc. v. Datapoint Corp., 908 F.2d 931, 935 15 USPQ2d 1321, 1325 (Fed. Cir.) cert. denied, 498 U.S. 920 (1990); Lindermann 730 F.2d at 1462, 221 USPQ at 488.

Complainants argued that "respondents have not been able to produce a single prior art reference that teaches or suggests the combination respondents deem was obvious." (Cpost at 43). It is well established that "references in combination [must] suggest the invention as a whole. . . . Absent such suggestion to combine the references, respondents can do no more than piece the invention together using the patented invention as a template. Such hindsight reasoning is impermissible." Texas Instruments Inc. v. International Trade Commission, 928 F.2d 1165, 1177 26 USPQ2d 1018, 1029 (Fed. Cir. 1993). However, the test is not whether a single reference teaches the claimed invention, but rather "[i]n determining whether obviousness is established by combining the teachings of the prior art, 'the test is what the

combined teachings of the references would have suggested to those of ordinary skill in the art.'" GPAC, 57 F.3d at 1580, 35 USPQ2d at 1123 See e.g. Cable Electric Products, Inc. v. Genmark, Inc., 770 F.2d 1015, 1021, 226 USPQ 881, 887 (Fed. Cir. 1985) ("the suggestion to modify the art to produce the claimed invention need not be expressly stated in one or all of the references 'Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.'").

The administrative law judge finds that the Thrush Diplomate

In addition he finds that the Thrush Diplomate teaches

(FF 483, 484(a)).

Thus, the administrative law judge finds that the Thrush Diplomate meets two of the arguments made by AMP during prosecution to distinguish over the Sugimoto reference. Specifically, it was argued to the Examiner that Sugimoto did not show the essential "portion of the resilient latch" projecting from a recess. The Thrush Diplomate has such a disclosure. It was also argued that Sugimoto did not show a latch mounted in a separate latch receiving recess adjacent the "substrate receiving recess." (FF 165). The Thrush Diplomate likewise has such a disclosure.

Respondents do face a higher burden when they proffer the same prior art considered by the Examiner. Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1467, 15 USPQ2d 1525, 1527 (Fed. Cir.), cert. denied, -493 U.S. 1076 (1990). The Thrush low profile Diplomate however was submitted to the Examiner only because "Augat has made reference to it in litigation." (FF

183). Moreover, it was accompanied by a declaration that merely stated that the Thrush reference was "never sold or offered for sale," and thus was not prior art under 35 U.S.C. § 102(b). (FF 187, 492, 493). The administrative law judge has found that there is a substantial question as to whether the Thrush Diplomate can be relied upon in considering the issue of obviousness. Accordingly, the administrative law judge finds that the respondents have raised a substantial question regarding whether the claimed subject matter is obvious in view of either Grabbe or Regnier, which teach rotate and latch SIMM connectors, taken with the Thrush low profile Diplomate which teaches the substitution of metal latches for plastic latches mounted in a recess at the end of the connector housing adjacent to the card receiving slot and using the as an indicator of the level of ordinary skill in the art to which the invention pertains.

d. 35 U.S.C. §112

Respondent Berg argued that 35 U.S.C. § 112 requires that claims must be definite, i.e. that they must provide clear warning to others of what constitutes infringement, citing Morton Int'l, Inc. v. Cardinal Chemical Co., 5 F.3d 1464, 1470, 28 USPQ2d 1190, 1194 (Fed. Cir. 1993). It is argued that claim 17 in reciting "latch receiving section" is not definite (RBPost at 85-88). Respondent Tekcon agrees with Berg and further argued that the asserted claim 7 and its dependent claims are invalid under 35 U.S.C. § 112, paragraph one "for failing to contain a critical feature of the invention," viz. the mounting section or post Tekcon also raised the defense of "late claiming."²⁷

²⁷ Respondent Berg did include an allegation of late claiming in its prehearing submission. Berg, however, has not pressed it at the TEO hearing, without waiver of so proceeding at a later date and is now not asking the administrative law judge to make a finding on the issue of late claiming.

(continued...)

(RTPost at 33-34).

Complainants argued that respondents' indefiniteness argument is not supported by the law or the testimony and that Tekcon's written description defense raises no substantial question regarding the validity of the '792 patent. (CPostR at 30-35).

In view of the findings on claim construction, supra, the administrative law judge finds the claims in issue not invalid under 35 U.S.C. §112 for indefiniteness in using the phrase "latch receiving section." Also while Tekcon argued that independent claim 17 is not valid because it fails to include a mounting section, subcombination claims however drawn to only one aspect or combination of elements of an invention are consistent with the claim definiteness requirement of the second paragraph of 35 U.S.C. §112 Stiftung v. Renishaw PLC, 945 F.2d 1173, 1179, 20 USPQ2d 1096, 1101 (Fed. Cir. 1991) (Stiftung).

In Stiftung the district court had held a claim 3 to be invalid because it had omitted any electrical circuitry or other signaling means and hence did not describe the "McMurtey's invention," the district court concluding that

²⁷(...continued)

(Tr. at 4843, 4847). The staff opposed any denial of the TEO motion on the basis of a late claiming doctrine, stating that "if that doctrine is going to come into play here, it's going to require a substantial amount of briefing on an area of law that has faded a bit, to be generous." (Tr. at 4846). Complainants argued that the Federal Circuit has "expressly rejected the late claiming defense as 'inappropriate and long ago discredited'" relying on Railroad Dynamics, Inc. v. A. Stucki Co. 727 F.2d 1506, 1518, 220 USPQ 929, 940 (Fed. Cir.), cert denied, 469 U.S. 871 (1984) (CPostR at 36). It would appear that late claiming applies only where the claims are directed to subject matter not originally disclosed. See Chisum, Patents § 11.05. In this temporary exclusion phase of the investigation, neither Berg nor Tekcon has raised any allegation of new matter inserted into the '792 patent during its prosecution. (Tr. at 4879, 4660). Thus the administrative law judge finds, in the TEO phase of this investigation, that the issue of late claiming has been mooted.

"the arbitrary presentation of a part of an invention does not constitute a claim of a valid invention." The Federal Circuit found such reasoning legal error on the ground that it has long been held and "we affirm" that it is entirely consistent with the claim definiteness requirement of the second paragraph of 35 U.S.C. § 112 to present "subcombination claims, drawn to only one aspect or combination of elements of an invention that has utility separate and apart from other aspects of the invention and that it is not necessary that a claim recite each and every element needed for the practical utilization of the claimed subject matter." 945 F.2d at 1179, 20 USPQ2d at 1101.

In claim 17 the separate latch provides advantages. Thus the latch members are less likely to take a permanent set, particularly when the connector is used over many cycles (FF 87). Those advantages are distinct from any advantages of the mounting post which allows, for example, the post to be strengthened without the need to increase the area which the post occupies. (FF 87).

Based on the foregoing, the administrative law judge finds that there is a reasonable likelihood that respondents will fail in any 35 U.S.C. § 112 defense, when claim 17 is so construed as the administrative has done earlier in this opinion.

e. Inequitable Conduct

Berg argued that AMP did not inform the Patent Office of its placing the Thrush low profile metal latch connector and the

"on sale" to _____ and others in _____; that AMP did not inform the Patent Office in the declaration of Roger Thrush that the Thrush low profile metal latch connector

(RBPost at 91).

Complainants argued that the allegation of inequitable conduct fails because there is no evidence of materiality, of knowledge of such materiality or of wrongful intent. (CPostR at 40-42).

To establish that a patent is unenforceable due to an applicant's inequitable conduct before the Patent Office during prosecution of the patent application, the challenger must establish by clear and convincing evidence that the applicant withheld material information from the Patent Office with an intent to affect allowance of the claims. See LaBounty. Applicants for patents are required to conduct themselves with candor in their dealings with the Patent Office. LaBounty 958 F.2d at 1070, 22 USPQ2d at 1028. The Supreme Court in Precision Instrument Mfg. Co. v. Automotive Maintenance Mach. Co., 324 U.S. 806, 816, 818 (1945), stated:

A patent by its very nature is affected with a public interest. As recognized by the Constitution it is a special privileged designed to serve the public purpose of promoting the 'Progress of Science and useful Arts.' At the same time, a patent is an exception to the general rule against monopolies and to the right to access to a free and open market. The far reaching social and economic consequences of a patent, therefore, give the public a paramount interest in seeing that patent monopolies spring from backgrounds free from fraud or other inequitable conduct and that such monopolies are kept within their legitimate scope. The facts of this case must accordingly be measured by both public and private standards of equity.

* * *

Those who have applications pending with the Patent Office or who are parties to Patent Office proceedings

have an uncompromising duty to report to it all facts concerning possible fraud or inequitableness underlying the applications in issue. Cf. Crites, Inc. v. Prudential Co., 322 U.S. 403, 415. This duty is not excused by reasonable doubts as to the sufficiency of the proof of the inequitable conduct nor by resort to independent legal advice. Public interest demands that all facts relevant to such matters be submitted formally or informally to the Patent Office, which can then pass upon the sufficiency of the evidence. Only in this way can that agency act to safeguard the public in the first instance against fraudulent patent monopolies. Only in that way can the Patent Office and the public escape from being classed among the 'mute and helpless victims of deception and fraud.' Hazel-Atlas Glass Co. v. Hartford-Empire Co., [322 U.S. 238, 246]. [Emphases added].

Direct proof of wrongful intent is rarely available, but may be inferred from clear and convincing evidence of the surrounding circumstances. In LaBounty, the Court recognized that this administrative law judge in his ID at 102²⁸ "found clear and convincing evidence of a culpable lack of candor on the basis of misleading arguments made to the PTO for allowance of the claims coupled with the withholding of contemporaneously known prior art which was highly pertinent to the prosecution of the patent application." LaBounty 958 F.2d 1079, 22 USPQ2d at 1032. Responding to the appellant's argument in LaBounty that this administrative law judge's finding should be set aside because the issues were close and therefore the inventor and his attorney could reasonably have decided the devices in issue did not have to be disclosed to the Patent Office, the Court stated that "[c]lose cases should be

²⁸ LaBounty was an appeal from the Commission's decision, dated March 30, 1990, in Certain Heavy Duty Mobile Scrap Shears, Inv. No. 337-TA-252 not to review this administrative law judge's initial determination dated February 12, 1990. This administrative law judge had found that LaBounty had intended to mislead the Patent Office and that the patent in issue was therefore unenforceable due to LaBounty's inequitable conduct.

resolved by disclosure, not unilaterally by the applicant." Id. 958 F.2d at 1076, 22 USPQ2d at 1033.

While AMP disclosed the Thrush low profile Diplomate to the Patent Office, it represented to the Examiner that the Thrush low profile Diplomate was "never sold or offered for sale, and was never developed beyond an experimental stage." (FF 183, 187). In the Thrush declaration, AMP also represented to the Patent Office that an October 17, 1985, price proposal that AMP submitted to IBM for a "30 Position SIMM Socket with latch," was for a different product than that disclosed in the Thrush "Preliminary Invention Disclosure" (PID). (FF 187).

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(Emphasis in original)

(FF 493(a)).

(FF 491).

(FF 476). (Emphasis added).

²⁹ Complainants' patent solicitor who submitted the declaration of Thrush to the Patent Office with certain information could not recall conducting any sort of investigation for other information. (FF 188).

The administrative law judge further finds the Thrush low profile Diplomate material because it meets two of the three arguments that AMP made to distinguish the claimed invention from Sugimoto, the only prior art which AMP made any substantive comments on during the prosecution of the applications which resulted in the issuance of the '792 patent. (FF 142-194).³⁰

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³⁰ In the prosecution of Ser. No. 026,280 AMP on May 26, 1993, made of record some 160 references. (FF 183). AMP represented that "none of the documents alone or in combination, discloses or suggests the invention claimed" (FF 183). No substantive comments as to any of those 160 references were made by AMP to the Examiner.

³¹ Complainants argued that the "module clip" of thrush is not, in fact, a "latch." However, in the Thrush PID, the module clip is described as "a stamped and formed spring latch." (FF 482).

The administrative law judge earlier found in this opinion (See section VII c(i) (f) supra) that discovery in this investigation not disclosed to the Patent Office has raised a "substantial question" involving whether the Thrush low profile Diplomate was on sale during 1986 and/or whether the Diplomate was available as section 35 U.S.C. §§ 102(b)/103 prior art for the purpose of determining obviousness.³² Discovery in this investigation did not commence until after the institution of the investigation in May 1995. However AMP had access to the AMP's documents generated in the discovery, as well as the substance of the testimony of AMP's witnesses, during the prosecution of the applications that resulted in the issuance of the '792 patent on January 24, 1995.

In view of the materiality of the Thrush Diplomate and its status as a reference the administrative law judge finds that respondents have raised a "substantial question" with respect to the enforceability of the '792 patent.³³

f. Estoppel

Berg argued that AMP is estopped from asserting the '792 patent against

³² AMP before the Patent Office denied that the Thrush low profile Diplomate was on sale and made no reference to the Thrush Diplomate as 35 U.S.C. § 102(b)/103 prior art.

³³ Respondent Berg argued that claims 16 and 19 of the '765 patent and claim 37 of the '792 patent "which are not limited to rotate and latch connectors, are invalid in view of AMP's DIPLOMATE connector with metal latches, as well as Nishikawa" and made reference to certain proposed findings (RBPost at 92; RBPf 1157 to 1168). Complainants have submitted proposed rebuttal findings. (CRPF 371 to 381). The '765 patent however is not in issue in this investigation. Moreover, the construction of the language of claim 37 of the '792 patent was not briefed. See for example post hearing submissions of the parties, including the staff. Hence, the administrative law judge, at this time, takes no position as to the effect of claim 37 on the enforceability of the '792 patent.

Berg. Complainant argued that Berg's estoppel defense relies on events surrounding AMP's Patent No. 4,963,765 (the '765 patent) and that as a matter of law the events Berg relies on cannot and do not raise an estoppel defense with respect to the '792 patent. The staff concluded that there is a reasonable likelihood that Berg's defense of estoppel will fail.

The defense of estoppel, an equitable defense to a charge of infringement, has the following three necessary elements:

(1) The patentee, through misleading conduct, leads the infringer reasonably to infer that the patentee does not intend to enforce its patent against the alleged infringer, (2) the alleged infringer relies on that conduct, and (3) due to its reliance, the alleged infringer will be materially prejudiced if the patentee is allowed to proceed with its claims.

A.C. Aukerman Co. v. R. L. Chaides Constr. Co., 960 F.2d 1020, 1042-43 22 USPQ2d 1321, 1336-37 (Fed. Cir. 1992) (Aukerman); ABB Robotics, Inc. v. GMFanuc Robotics Corp., 52 F.3d 1062, 1063, 34 USPQ2d 1597, 1598. (Fed. Cir. 1995).

Prior to the issuance of the '792 patent, Berg never knew about the '792 patent or the patent application from which it matured. (FF 272). Moreover, on January 24, 1995, the day the '792 patent issued, AMP sued Berg for patent infringement. (FF 77, 273). Hence, there is no support that AMP, through misleading conduct, caused Berg reasonable to infer that AMP did not intend to enforce the '792 patent against Berg.

Berg has argued, however, that there were certain communications between Berg's predecessor, Du Pont Connector Systems, and AMP which communications led Du Pont to infer that AMP did not intend to enforce its U.S. Patent No. 4,986,765 (the '765 patent); and that its estoppel defense with respect to the '765 patent is also applicable to the '792 patent inasmuch as the '792 patent resulted from abandoned continuation application Serial No. 645,161 filed on

January 22, 1991 which application was a continuation of application Serial No. 313,261 filed on February 21, 1989 which application resulted in the issuance of the '765 patent on January 21, 1991. (FF 79). It argued that AMP ignores the fact that AMP filed a terminal disclaimer that disclaimed any part of any patent granted on the "pending application" that would extend beyond the expiration date of the '765 patent and that given AMP's terminal disclaimer, for the purposes of estoppel, it is as if all the '765 claims and the '792 claims are in the same patent, citing In re Braithwaite, 379 F.2d 594, 154 USPQ 29 (CCPA 1967) (Braithwaite). Berg argued, that given the relationship between the '765 patent and the '792 patent, it would not be equitable to permit AMP to bring this action under the '792 patent, having misled Berg into believing that AMP had abandoned its claim. (RBPostR at 7).

Berg also argued, as to AMP's alleged misleading conduct, that while it admits that silence alone is not sufficient affirmative conduct to give rise to an estoppel, the record here shows numerous meeting and correspondence between AMP and Berg's predecessor (Du Pont) concerning both AMP's and Berg's redesign efforts; and that AMP threatened Du Pont and thereafter corresponded and communicated regularly as well as met with Du Pont on at least four separate occasions. It is argued that those meetings and communications established "contacts" and "relationships" between the parties whereby AMP's inaction following "BERG's December 1991, plastic latch redesign submissions and August 4, 1992, metal latch redesign submissions, clearly raised the necessary inference that AMP had abandoned its claims against BERG." It is argued further that throughout the preceding 18 months, during the course of the numerous contacts between AMP and Du Pont, AMP did not hesitate to advise Du Pont whenever a dispute arose. Hence, Berg concluded that it was

reasonable for Du Pont to rely on AMP's silence following Du Pont's redesign submissions which took place eight months apart. (RBPostR at 10 to 12).

Berg argued that Du Pont substantially relied upon AMP's conduct relying on testimony that Du Pont did not sell a single metal latch SIMM connector prior to the fall of 1992 after Du Pont's August 4, 1992 submission of redesigns to provide AMP an opportunity to object to Du Pont's redesigned metal latch SIMM connector and further relying on Du Pont's release on \$750,000 in late fall 1992 which it had been accruing to finance litigation with AMP concerning AMP's metal latch patent rights and also relying on Berg's decision in 1993 not to again accrue funds and on Berg's refusal to alter it's design because the latch that Berg sold "was consistent with the latch which BERG had submitted to AMP for review." (CBPostR at 22, 23).

Berg further argued that it has established that the current action will cause it material prejudice in that an earlier and more timely response by AMP "might" have avoided Berg's introduction of its current metal latch SIMM connector. (RBPost at 33).

Braithwaite, relied on by Berg for a relationship between the '765 patent and the '792 patent, involved a decision of the Patent Office Board of Appeals affirming the rejection of certain claims for "Manufacture of Organic Lead Compound." In Braithwaite the sole ground of rejection was "double patenting" in view of claims of appellant's Patent No. 3,007,858 (the '858 patent). The appealed claims were to processes of a specific nature not specifically claimed in the '858 patent, albeit some of the claims of the patent "may have been" sufficiently broad in scope to provide coverage for what was on appeal. The sole question before the Court was whether appellant, who had filed a terminal disclaimer, could have certain claims in a patent

which would expire at the same time as his already issued patent. Braithwaite 154 USPQ at 30, 32, 33). The Court in Braithwaite observed that double patenting is a basis of rejection grounded in public policy and primarily intended to prevent prolongation of monopoly and that, assuming validity of the broad patent claims, Braithwaite had been enjoying patent protection which would be continued beyond the expiration of his '858 patent, by allowance of the appealed claims, on subject matter which did not differ from the subject matter of the patent in an unobvious way. The Court, in reversing the Patent Office, found that the terminal disclaimer had foreclosed the possibility of such an extension of protection, although it acknowledged that even in the double patenting context claims can be distinct. Braithwaite 379 F.2d at 599, 154 USPQ at 34, 35.

There is no issue in this investigation of whether the claims of the '792 patent differ from the subject matter of the '765 patent in an unobvious way which issue was critical in Braithwaite. There is no allegation by any party in this investigation that the claims of the '765 patent are infringed. Braithwaite did not involve an infringement issue involving the appealed claims and the claims of the '858 patent. There was no issue involving an estoppel defense raised by any alleged infringer in Braithwaite.

While respondent Berg has argued, in effect, that all the claims of the '765 patent and all the claims of the '792 patent should be considered in the same hypothetical patent, Berg in arguing that AMP cannot establish irreparable harm to the domestic industry argued that because the "'792 patent did not issue until January 1995, sales by BERG before that time do not constitute past 'wrongs' or 'misconduct' but rather fair competition" (Emphasis added) (RBPostR at 68). Thus, while the '765 patent issued on

January 22, 1991, it argued, in support of a lack of irreparable harm, that prices had already eroded when the '792 patent issued on January 22, 1995. In addition, at closing argument, Berg's counsel distinguished the '765 and '792 patents. Thus it was argued (Tr. at 5030):

Until January of this year when the '792 patent [issued], there was never any reason for any party, including Berg, most especially Berg, who thought that they had no problem with the AMP patent position, to ever look for any prior art which went to the basic concept of substituting a metal latch for a plastic latch in any kind of connector. It is that search which has been underway.

* * *

I think Mr. Ropski's point that we've maybe stood on the shoulders of people such as Augat is undeniably true, but it shows the problem one has in operating in these tight time frames. We still, even though we're standing on the shoulders, have not had the opportunity to take a deposition of an _____, take the deposition of a _____, take the deposition of all these employees to fully develop this prior art.

It takes time to do that. And no one had reason to start that search for a claim of the breadth asserted here, at least in AMP's view, since they claim it's far broader than just a recess. Nobody had reason to start such a search until January of this year. [Emphasis added.]

(RBPost at 102).

Based on the fact that the claims of the '765 and '792 patents are not contained in the same patent, the administrative law judge rejects Berg's argument that it would not be "equitable" to permit AMP to bring this action under the '792 patent. Hence, for this reason alone he finds that there is a reasonable likelihood that Berg's defense of estoppel will fail.

Moreover, assuming that Berg could rely on events surrounding the '765 patent, he finds that those events do not give rise to an estoppel defense that would prevent AMP from asserting the claims of the '792 patent against Berg. Berg's predecessor, Du Pont, began making metal latch SIMM sockets sometime in the second or third quarter of 1990. (FF 274). Du Pont was

formally going to launch its original metal latch SIMM connectors in the United States on February 1, 1991, but postponed the introduction because of the '765 patent. (FF 275 to 279). To forestall a potential patent dispute with AMP, involving the '765 patent, Du Pont in the spring of 1991 decided to pursue a cross-license with AMP, with the idea of trading to AMP a license for Du Pont's patent pertaining to a certain retentive leg feature for connectors in exchange for a license from AMP to market the metal latch SIMM connectors.

(FF 280 to 284). Serial No. 026,280, which was the last application that led to the issuance of the '792 patent, was not filed until March 1993 (FF 178),

(FF 287).

³⁴ Du Pont's redesign team had held its kickoff meeting in Taiwan only two days earlier, on August 26, 1991. (FF 299 to 302, 316).

³⁵ When Du Pont's Scott was asked whether it is true that Du Pont has a practice of advising potential infringers about pending applications, she answered no and was unable to identify any situation where that occurred with the exception of a reexamination procedure of a patent involved in an infringement suit. (FF 325). The administrative law judge finds no evidence in the record that it was industry practice to disclose to competitors the contents of any pending patent application.

(FF 323).³⁶ Du Pont's Anderson described the situation between Du Pont and AMP in the fall of 1991 as a "chess game." Anderson wrote on October 11, 1991, that "right now a strong delay is in our favor." (FF 320).

(FF 328). By at least April 1992, Du Pont was accumulating a liability fund for use in any infringement suit that AMP may bring against Du Pont when the redesigned connector was introduced in the U.S. market. (FF 330, 332). In this regard, Anderson wrote to Goh on April 9, 1992:

[FF 330]

The accumulation of defense fund is reason to find that Du Pont, Berg's predecessor, expected to be sued by AMP.

By at least May 1992, Du Pont believed that it had designed around the claims of the '765 patent. During May 1992, Du Pont showed the product to customers. (FF 336). On July 6, 1992, a Du Pont engineer sent drawings of "the product we'll be commercializing" to Du Pont's patent agent in Japan. (FF 341). On July 10, 1992, Du Pont's counsel approved a letter to customers in Taiwan introducing the new metal latch SIMM connector. The letter stated:

The new metal-latch product clearly does not infringe any AMP patent anywhere in the world of which we are aware. Moreover, as with the SIMM electrical contact, we feel that this new metal latch design is so uniquely different that we have filed new patent applications on its design

³⁶ Serial No. 026,280, which was the third of the applications involved in the issuance of the '792 patent, was not even pending on October 11, 1991. (FF 178).

(FF 342).

(FF 352). This opinion obtained by Berg's predecessor Du Pont is strong evidence that Du Pont was not relying on any activities of AMP with respect to Du Pont's commercialization.

On August 4, 1992, Du Pont sent samples of the redesigned metal latch SIMM connector to AMP. The cover letter accompanying the samples stated that "As of the end of this month, this metal latch design will be the one used in all metal latch SIMM products made and sold by Du Pont worldwide." (FF 354 to 356). The August 4 letter of Du Pont did not ask for a response. (FF 355). In fact, AMP never did provide Du Pont or Berg with any approval of the product. (FF 354). Sometime after the August 4, 1992 letter to AMP, in the fall of 1992, Du Pont began accepting orders on its metal latch SIMM connector. (FF 360).

After the product was introduced, but before March 1993, Du Pont began to talk about an estoppel defense in the event that AMP sued for patent infringement. (FF 361). Berg's Wheeler had no knowledge of whether AMP even approved Berg's metal latch SIMM product as not violating AMP's patent. (FF 398, 399).

(FF 375).

Subsequent to the purchase of Du Pont's connector division in March 1993 by Berg, Berg's customers continued to request indemnification letters regarding AMP's patent. (FF 373, 381). Berg's general counsel McGhree after said purchase felt that Berg would be sued by AMP for patent infringement. (FF

369). No one ever told McGhee that AMP would not enforce its SIMM connector patents against Berg. (FF 419).

(FF 387). Berg's Page knows of no agreement by AMP not to sue Berg with respect to its metal latch SIMM connector patents. (FF 406).

In view of the foregoing the administrative law judge finds that the evidence does not suggest that AMP, through misleading conduct, led Berg reasonably to infer that AMP did not intend to enforce its '765 patent against Berg, much less its '792 patent, nor does it indicate that Berg reasonably relied on any misleading AMP conduct in its decision to introduce a metal latch SIMM connector. He also finds that the facts show that Berg reached its own conclusions about non-infringement of the '765 patent and decided to market its product and prepare its defenses regardless of AMP's view of the situation.

Based on the foregoing, the administrative law judge finds that there is a reasonable likelihood that Berg's defense of estoppel will fail, even assuming that Berg could rely on events surrounding the '765 patent.

g. Infringement

Complainants argued that respondents "literally" infringe the '792 patent and that AMP need only demonstrate a reasonable likelihood of success on the issue of infringement. (CPost at 11, 12). Berg argued that AMP is not likely to establish infringement of the asserted claims by the Berg SIMM connectors. (RBPost at 36-58). Tekcon argued that it does not infringe the asserted claims. (RTPost 40-51). The staff argued that there is a reasonable likelihood that Berg connectors, Tekcon connectors and Hon Hai/Foxconn

connectors will be found to infringe all of the asserted claims. (SPost at 24-28).

The administrative law judge finds that AMP has not established that there is a reasonable likelihood that respondent Berg infringes any of the claims in issue. See FF 562 to 578. He does find that AMP has established that there is a reasonable likelihood that each of Tekcon and Hon Hai/Foxconn infringe the claims in issue. See FF 579 to 603.

h. Domestic industry

(i) Economic Prong

Subsection (a) (3) of section 337 sets forth the following criteria for determining the existence of a domestic industry in patent-based investigations under section 337(a) (1) (B):

[A]n industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent . . . concerned - -

- (A) significant investment in plant and equipment;
- (B) significant employment of labor or capital; or
- (C) substantial investment in its exploitation, including engineering, research and development or licensing.

19 U.S.C. § 1337(a) (3). To satisfy the domestic industry requirement a complainant need only show that it meter the requirement of any one of the three prongs of subsection (a) (3). Certain Plastic Encapsulated Integrated Circuits, Inv. No. 337-TA-315, Commission Opinion at 18 (1991).

None of the respondents contested AMP's satisfaction of the economic prong of the domestic industry requirement in their prehearing statement (June 13, Teleconference at 35). Moreover, at closing arguments, counsel for respondent Berg admitted that Berg doesn't take issue with the economic prong

of the domestic industry. (Tr. at 4953). While respondent Tekcon, in its post hearing brief, argued that AMP has failed to establish investment in a domestic industry, (RTPost at 30, 31), it thereafter, in closing argument, admitted that Tekcon does not take issue with the economic prong of the domestic industry, (Tr. at 4953).

The domestic requirement of section 337(a)(3) is satisfied if complainant or one its licensees produces the article in question in the United States. See In the Matter of Certain Methods of Making Carbonated Candy Products, Inv. No. 337-TA-292 (ID 1989), aff'd in relevant part, 55 Fed. Reg., 3281 (ITC 1990) (Carbonated Candy). In the present investigation, AMP manufactures metal latch cam-in SIMM connectors at

(FF 606, 607). AMP has also made substantial investments in plant and equipment in connection with its manufacture of metal latch cam-in SIMM connectors in the United States. (FF 608 to 627). Those investments in land, labor, and capital are found to satisfy as a matter of law the economic prong of the domestic industry requirement under Carbonated Candy. Hence, the administrative law judge finds that complainants have a likelihood of success in establishing the economic prong of the domestic industry requirement.

(ii) Technical Prong

Complainant argued that the metal latch SIMM connectors manufactured by AMP in the United States are covered by the '792 patent claims, including claims 17, 18, 20, 21 and 23; that AMP manufactured four different types of metal latch SIMM connectors in the United States, a vertical, 40°, 22.5° and right angle; that CPX 1-4 are representative in all material respects of each type AMP's metal latch SIMM connectors, respectively; and that the evidence

has shown that each of those representative samples is covered by the claims in issue. (CPost at 92, 93). The staff argued that complainants have shown that their metal latch SIMM connectors practice the asserted claims of the '792 patent and that respondent Berg's expert Kirk essentially has acknowledged that at least complainant's 22 degree connector practices at least claim 17 of the '791 patent. (SPost at 35).

Respondents Berg and Tekcon argued that the properly interpreted claims of the '792 patent asserted by AMP, when applied to AMP's own metal latch SIMM connectors, do not cover those connectors. Specifically they argued that AMP's vertical, 40 degree and right angle SIMM connectors do not include a latch which cooperates with a latch receiving section to limit movement of the latching portion in a transverse direction whereby after the SIAM card is rotated into its operative position that position is maintained (RBPost at 93, 94) (RTPost at 29, 30) because in those connectors the daughter card is maintained in a second position (i.e. when the SIMM has moved in a direction in which the daughter card is pushed back out of a fully engaged and position) not by the cooperation of the latch receiving section and the latch but rather by the presence of a metal tab. Respondent Tekcon also argued that the AMP 22 degree SIMM connector is not covered by the claims of the '792 patent. (RTPost at 30).

The administrative law judge has construed claim 17 as referring to a latch receiving section which cooperates with the latch to limit movement of the latching position in a direction which is perpendicular to the longitudinal axis of the card receiving slot and is not limited to the point of time described in the whereby clause of claim 17. See section VII 1a(iii) supra.

2. Irreparable Harm

To obtain temporary relief, complainants have to establish not only a reasonable likelihood of success on the merits but also immediate and substantial harm to the domestic industry in the absence of temporary relief. "Immediate harm" has been characterized as harm likely to occur before the Commission is able to issue permanent relief. Irreparable harm may be demonstrated either by a factual showing or by an unrebutted presumption based on clear showings of patent validity and patent infringement. Certain Pressure Transmitters, Inv. No. 337-TA-304, USITC Pub. 2392, Commission Opinion at 13, 16, 18 (October 30, 1990), aff'd sub nom, Rosemount, Inc. v. United States Int'l Trade Comm'n, 910 F.2d 819, 15 USPQ2d 1569 (Fed. Cir. 1990) (Pressure Transmitters).

The parties have raised the question of whether respondents' past actions, prior to the issuance of the '792 patent on January 24, 1995, are probative in determining any harm that respondents' actions will cause AMP during the pendency of this investigation. Complainants argued that the Commission has recognized that such past actions are probative of future harm, citing In the Matter of Certain Canape Makers, Inv. No. 337-TA-146, USITC Pub. 1436 (October 1983) at 10, 11 (Canape), In re Certain Luggage Makers, Inv. No. 337-TA-39 (Recommended Determination of August 14, 1978 at 11, Commission decision of November 30, 1978) (Luggage) and Cellular Radiotelephones, Inv. No. 337-TA-297, Order 21 at 145. (Radiotelephones) (CPost 100 to 102). Respondent Berg argued that past actions can only have a bearing on the irreparable harm analysis under very limited circumstances, which are not present in this investigation, viz. the past actions must rise to the level of a "wrong" or "misconduct" and there must be a likelihood that this past

"wrong" or "misconduct" will be repeated. (RBPostR at 67).

In City of Los Angeles v. Lyons, 461 U.S. 95, 111 (1983) the equitable remedy of injunctive relief was not available in the absence of a showing of irreparable injury, a requirement that could not be met where there was no showing of any real or immediate threat that the movant will be "wronged again." Complainants have not shown that any competitive conduct of the respondents before the issuance of the '792 patent involved any wrong.³⁷ To the contrary, the United States has a competitive economy. Complainants had no existing right prior to the January 24, 1995 issuance date of the '792 patent to exclude the respondents from the claimed subject matter in issue.³⁸ Respondents had no knowledge that the '792 patent would issue. In fact, AMP went to some length to keep the contents of any pending patent application away from respondent Berg. See estoppel section, supra.

Radiotelephones, Canape, and Luggage are not controlling. The three patents in issue in Radiotelephones issued on June 11, 1985 (the '155 patent), on January 13, 1987 (the '593 patent) and on July 26, 1983 (the '873 patent) while the lost sales and prices suppression occurred in 1988, after the issuance of the patents. Radiotelephones at 10, 11, 12 and 145. Hence Radiotelephones is inapposite.³⁹ Canape and Luggage utilized an injury

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(FF 64).

³⁸ Complainants, in this investigation, have not asserted any claim of the '765 patent, which issued on Jan. 21, 1991 (FF 79), against any of the named respondents. Moreover, it has not been alleged in this investigation that Berg committed any "wrong" with respect to any claim of the '765 patent.

³⁹ In Radiotelephones the administrative law judge pointed out that the specific lost sales and price suppression in 1988 were relevant only to
(continued...)

analysis undertaken pursuant to the pre-1988 amendments to section 337 and neither involved an irreparable harm analysis. Moreover, in Canape the complainant's legal and factual analysis stood wholly unrebutted as all respondents were in default. The administrative law judge can find no precedent for the proposition that sales of a product prior to the issuance of a patent is an infringement of that patent. Thus, to the extent that Canape and Luggage based their injury findings solely upon conduct occurring prior to the issuance of the respective patent and considered such sale infringing said patent, he finds Canape and Luggage erroneous. Accordingly, the administrative law judge finds that respondents' conduct prior to the January 24, 1995 issuance date of the '792 patent has no bearing on his irreparable harm analysis.

The parties have also raised the question as to the focus of the irreparable harm inquiry. AMP argued that the administrative law judge should evaluate all harm caused by respondents' infringement of the '792 patent rather than only that harm done to the domestic industry, although it earlier referred to four different types of metal latch SIMM connectors which AMP manufactures in the United States and argued that AMP's manufacture of those connectors in the United States satisfies the economic prong of the domestic industry requirement. (CPost at 92-96, 102). Berg argued that any threat of harm must be to the domestic industry in the absence of temporary relief and

³⁹(...continued)

the extent that they have a bearing on the harm that would be suffered by the complainant in the absence of temporary relief. Also, the evidence of one of the respondent's (Nokia's) ambitious plans to make significant inroads into the United States market at the time of the issuance of the TEO initial determination was found to be unequivocal and could not be understated. The evidence of respondent Tandy, with respect to entering the market, was also strong (Id at 145). This administrative law judge finds no comparable evidence in the record.

that AMP's argument is in direct conflict with the express language of every decision by the Commission and the administrative law judges in every TEO case since the adoption of the federal standard in Pressure Transmitters. (RBPostR at 70).

Commission precedent clearly establishes that, in order to obtain temporary relief, a complainant must demonstrate that there exists a threat of harm to the domestic industry in the absence of temporary relief. Pressure Transmitters, Comm'n Op. at 10. Thus, in Pressure Transmitters, the evaluation of irreparable harm was with respect to the domestic industry of pressure transmitters as defined by the claims of the patent in issue. Comm'n Op. at 33-37. Likewise, in Circuit Board, in the analysis of irreparable harm the evaluation of lost sales was limited to the circuit board testers which involved a domestic industry. Circuit Board, Comm'n Op. at 28-30. In Certain Recombinantly Produced Human Growth Hormones, Inv. No. 337-TA-358, USITC Pub. 2764, Unreviewed Initial Determination (March 1994) (Growth Hormones), while this administrative law judge had a section titled "B. Harm to Complainant In the Absence of TEO Relief" (Harm Section) it was his intent that any harm was in relation to the complainant's domestic industry in issue as defined by the claims of the patents in issue. This is readily apparent in his analysis at 77, 78 of the ID of what the domestic industry was, as well as the text that follows his harm section. For example, in that text it was stated that complainant was a clear leader in the U.S. human growth hormone market while in contrast respondent BTG had had no commercial sales of human growth hormone (Id. at 89). In Radiotelephones, the administrative law judge reiterated the proposition that "[i]n order to secure temporary relief, a complainant must show immediate and substantial harm to the domestic industry in the absence of

the temporary relief." (Emphasis added) There followed an analysis of the patented technology involved in the claims in issue and of specific lost sales, lost profits and price suppression in the domestic industry involving the radiotelephones in issue. Radiotelephones at 141 to 147.⁴⁰

⁴⁰ Before the 1988 amendments to section 337(a)(3) of the Tariff Act, to prove a violation of section 337, injury was measured against a domestic industry. As Radiotelephones stated at 141, 142, 146:

In view of the fact that Congress, in eliminating the injury standard in patent-based cases specifically counseled against the reintroduction of the injury element under separate guise....[HR. Rep. No. 100-40, 100th Cong., 1st Sess. 159 (1987)] and in view of the limited utility of such a benchmark, the use of the former injury standard as a benchmark in determining immediate and substantial harm to the complainant may be instructive, but is not controlling. In short, proof of immediate and substantial harm in patent-based investigations need not be directed to the indicia of injury as that term is employed in section 337(a)(1)(A).

* * *

Competition by respondents in the low-end of the market is not only cutting into complainant's research capital, it is requiring complainant to divert resources away from efforts to develop and commercialize digital technology [with analog technology involved in the product in issue]...

Aside from lost sales, the evidence of the effects of respondents' pricing practices on complainant's lost profits and the resultant effects on its research and development is particularly compelling. Although complainant's sales have increased in an expanding market since the respondents became a factor in the market, the evidence show that profit margins have been substantially eroded... it is fair to infer that Motorola's lost profits resulting from respondents' sales practices will continue to be substantial.... These lost profits have already impacted complainant's research and development program, by causing Motorola to switch its engineers from the important digital technology research to work connected with its cost reduction, efforts so that it can remain competitive under current market conditions.

In Radiotelephones consideration was given to the fact that there had been a diversion of resources from technology that was not in issue. However, as seen from the above, it was the loss profits in the domestic industry that caused such diversion. Thus the administrative law judge finds that any

(continued...)

Complainants argued that the Commission and the administrative law judges have used the terms "complainant" and "domestic industry" interchangeably in the harm analysis since the 1988 amendments went into effect, citing Circuit Board, Growth Hormones, and Pressure Transmitters. The fact that "complainant" and "domestic industry" may have been used interchangeably, as this administrative law judge had done in Growth Hormones, is not controlling. What is controlling is the analysis made involving irreparable harm. As seen, supra, in each of Circuit Board, Growth Hormones and Pressure Transmitters irreparable harm was looked at with respect to the domestic industry that was in issue as defined by claims of certain patents. This should not be unexpected, because the requirement of harm to a domestic industry is not only a statutory requirement but also a concept unique and central to section 337 investigations. Accordingly, in determining the extent of harm that may be suffered by complainant, the administrative law judge will evaluate any threat of harm to AMP's domestic industry, as defined by the '792 patent in issue, not any threat of harm to merely complainant AMP.

Complainants have also argued that, in determining the appropriateness of temporary relief, irreparable harm should be measured by the aggregate effect of the respondents' alleged unfair acts and that because temporary relief is afforded to protect the complainant, the appropriate analysis is on the threat of harm to the complainant, regardless of who inflicted the harm and regardless of whether the harm is inflicted by a single or multiple infringers. (CPost at 104-105). Tekcon argued that complainants cannot aggregate the harm allegedly caused by multiple respondents in an effort to

⁴⁰(...continued)

alleged harm must have a direct nexus to the domestic industry.

show irreparable harm (RTPost at 16-17). Tekcon however at closing argument was unable to provide any federal cases to support its position. (Tr. at 4975).

Commission precedent has shown that irreparable harm has been consistently measured by the aggregate effect of the alleged unfair acts. See for example Circuit Board Comm'n Op. at 27 to 31; Radiotelephones ID at 141-147; and Growth Hormones ID at 81 to 93. Such measurement is consistent with the determination of whether there is a "[t]hreat of irreparable harm [irrespective of the source] to the domestic industry in the absence of the requested relief" Circuit Board, Comm'n Op. at 4. Accordingly, the administrative law judge, in determining the appropriateness of temporary relief, is measuring any irreparable harm by the aggregate effect of respondents' alleged unfair acts, in the absence of the requested relief as well as considering the balance of harm between the parties and the effect, if any, the requested relief would have on the public interest.

a. Price Erosion

Complainants argued that respondents are irreparably harming the domestic industry by eroding the price of metal latch SIMM connectors. It is argued that

While AMP has so argued, despite the alleged price erosion,

(FF 631, 730). Moreover,

It further requested

information about

(FF 639).

(FF 640, 731-735). Moreover,

(FF 641).

(FF 642).

Berg argued that, while a decline in prices occurred prior to issuance of the '792 patent, that decline has moderated; and that Berg was not the cause of the decline, either before or after issuance of the '792 patent. Berg also argued that, even if price erosion due to Berg were to occur during the limited period that a TEO would be in effect, the amount of such erosion is easily quantifiable and compensable by monetary damages and hence not irreparable harm. (RBPost at 101 to 114).

Respondent Tekcon argued that complainants have not shown that its domestic industry for SIMM connectors will be harmed by

(RTPost at 8 to 18). The staff argued that the evidence strongly suggests that price erosion has not been caused by respondents' activities in the metal latch SIMM connector market and that

(SPost at 40 to 44).

While complainants argued that respondents are irreparably-harming AMP through price erosion, the record demonstrates that there are a number of

other market forces, unrelated to respondents,⁴¹ that are responsible for downward price pressures even before the January 24, 1995 issuance date of the '792 patent. One such market force is the presence of plastic latch SIMM connectors which are not within the claimed subject matter. Plastic latch products are and are typically sold at lower prices and thus provides a cost saving alternative to a metal latch product which can be very attractive to a purchaser seeking to maintain profit margins. (FF 665).

41

(FF 674).

(FF 684). Thus the administrative law judge finds that metal latch and plastic latch SIMM connectors compete, and that competition from plastic latch SIMM connectors is one factor that is likely to cause a decline in the price of metal latch SIMM connectors.

Furthermore, price erosion has been occurring for some time. (FF 635).

(FF 650).

Another market force responsible for downward prices, and unrelated to respondents, is AMP's licensee Molex

(FF 647, 686, 742, 744, 748).

(FF 646).

(FF 652,

679). Molex is a competitor at many OEM's. (FF 682, 686, 743, 746, 747, 749).

There is yet a third market force responsible for downward prices for

metal latch SIMM connectors and unrelated to respondents. SIMM connectors are being supplied to an industry that is very highly cost conscious and whose end products are very cost competitive with each other. Buyers, viz. original equipment manufacturers (OEM's), are very powerful and strong in the industry in terms of being able to move large quantities of purchases around from supplier to supplier to obtain the very best price. Moreover, the quantity of computers sold and the products that go into them have increased. In the computer industry there are economies of scale to the producer of connectors and other products, and those economies are known to the OEM's. Hence, the OEM's insist on being given the benefit of those economies and thus demand a lower unit cost as the quantities increase. (FF 665). Complainants' expert Peterson testified that an "OEM has a general tendency to want lower prices and push targets on the suppliers," (FF 679) and that OEM's sometimes ask suppliers to meet the price an OEM wants to pay for the connector. (FF 738). OEM's have also set target prices (FF 739, 740, 741). Peterson has further admitted to an (FF 666).

Moreover, there is credible expert testimony from Berg's expert Hoffman that prices are falling (FF 670). AMP's Simonic testified that

(FF

668). Also, AMP's Bruggeworth

(FF 677).

Still another market force, unrelated to the respondents, but which has caused downward pricing of metal latch SIMM connectors is the worldwide pricing of the connectors. Many of the OEM's have overseas production facilities that are supplied parts from connector manufacturers who have

facilities overseas. They will use this worldwide buying to obtain the very best price and also to ensure that the prices they obtain overseas are matched domestically. Hence, the OEM's have information and a bargaining power based upon their worldwide consumption of connectors. (FF 665).

Based on the foregoing, which shows a number of market forces, unrelated to respondents, that affect the price of a metal latch SIMM connector, the administrative law judge finds that complainants' allegation of price erosion does not support the conclusion that the domestic industry will be irreparably harmed in the absence of the extraordinary remedy of temporary relief.

b. Complainants' Reputation

Complainants argued that respondents are irreparably harming AMP through their damage to the goodwill that AMP has enjoyed with its metal latch SIMM connector customers

(CPost at 104).

Berg argued that there is not a single shred of objective, empirical information which supports complainants argument; that AMP is relying on nothing more than the non-objective testimony of its own witnesses or on evidence indicating that Berg has been establishing its own favorable reputation in the marketplace; and that while Berg has established a good reputation, such does not mean that AMP has lost the reputation it had prior to Berg's entry into the market. (RBPostR at 83).

The staff argued that the record does not convincingly support complainants' contention that their customers are somehow reacting negatively to any lower prices.

(SPost

at 43).

Based on the finding, supra, that only the threat of harm to the domestic industry should be considered in determining whether complainants have established irreparable harm, any alleged harm to complainants' reputation not directly related to the patented products manufactured in the United States is not found relevant. Complainants' Bruggeworth, manager of AMP's Integrated Circuit Connector Products Division (ICCP) in a declaration (CX-10 at 24), stated:

(FF 96). There is also evidence that AMP

(FF

772).

(FF 724).

(FF 723).

Accordingly, the administrative law judge rejects AMP's goodwill argument, as it relates to the domestic industry, finding that it does not warrant the issuance of any temporary relief.

c. Whether Alleged Harm Is Quantifiable

Complainants argued that, while the short term effects of respondents' undercutting of prices can be quantified to a "certain extent," the long term effects are difficult or impossible to measure fully. (CPostR at 68). Berg argued that damages fully compensable in money are not considered irreparable.

The possibility that adequate compensatory or other corrective relief (RPost at 81) will be available at a later date, in the ordinary course of litigation, weighs heavily against a claim of irreparable harm. Virginia Petroleum Jobbers Association v. FPC 259 F.2d 921, 925 (D.C. Cir. 1958). Thus, while complainants may suffer harm through activities of respondents subsequent to the January 24, 1995 issuance date of the '792 patent, such potential harm is not irreparable if complainants will have the possibility of obtaining monetary damages for the activities of respondents. Loss from any price erosion or through lost sales are quantifiable. Thus in Pressure Transmitters, USITC Pub. 2392 at 37 the Commission stated:

Further, the Commission determines that Rosemount's damages [through lost sales] are easily calculated and proven, and thus should be readily compensable in money damages. Under the traditional equity standards applied by the district courts,

damages fully compensable in money are not considered irreparable. Section 337 remedies are in addition to any other remedies, so Rosemount is not foreclosed from seeking damages in a patent infringement suit in federal district court. Accordingly, the Commission determines that any harm complainant may experience during the remaining period of investigation by reason of respondents' imports would not be irreparable harm. [Footnotes omitted]

The Commission, in Pressure Transmitter, did not hold that lost sales may never constitute irreparable harm, stating that it is possible, for example, that the loss of any sales could prevent a newly established firm from expanding its marketing or prevent such a firm from furthering research and development efforts necessary for business. Id. However, AMP and its licensee Molex control some of the metal latch SIMM connector market and of the combined plastic and metal latch SIMM connector market. (FF 686). In addition, AMP is the world's largest manufacturer of electrical connectors, with 1994 revenues times that of their next largest competitor. (FF 2, 10).

In W. L. Gore & Associates, Inc. v. Carlisle Corp. 198 USPQ 353, 358 (D. Del. 1978) the district court adopted a Special Master's finding that damages due to price erosion amounted to \$147,288.00. Significantly, the parties did not even challenge the Special Master's calculation of damages due to price erosion. The Special Master had found that the damages due to price erosion was the aggregate of the volume of each of the patentee's sales during the infringement period, multiplied by the difference between the pre-infringement price and the actual sale price.⁴² In yet another district court

⁴² Based on the method of computing damages used in W.L. Gore, there will be no irreparable harm from any price erosion occurring during the pendency of this investigation. To the contrary, if AMP receives the difference between the pre-infringement price and the actual sale price for each SIMM connector sold, it would appear that AMP will be overcompensated by
(continued...)

action, which involved complainant AMP, viz. AMP Inc. v. Lantrans Inc. 22 USPQ2d 1448 (C.D. Calif. 1991), the court referred to the fact that it had previously granted AMP's partial summary judgment as to the liability of the defendant for infringement of certain claims of two patents. The court thereafter, considering papers and arguments made by AMP in connection with its motion for partial summary judgment regarding damages for patent infringement, granted the partial summary judgment caused by the defendant's infringement and awarded AMP, inter alia, \$49,500 for price erosion damages stating:

(d) Based upon the difference between \$1.75 and AMP's published prices for that quantity of the patented keystone jacks, AMP suffered price erosion damages of \$49,500 (Janus Depo. at 11, Wong Decl. § 5. Exh. D, at D-65; Janus Decl. §§ 2-6)

AMP 22 USPQ2d at 1450. Complainant's expert Pertson acknowledged that he has frequently testified that damages associated with patent infringement are quantifiable. (FF 750).

To be sure, "the nature of the patent grant weighs against holding that monetary damages will always suffice to make the patentee whole" Hybritech 849 F.2d at 1456-57, 7 USPQ2d at 1200 (Emphasis added).⁴³ Nonetheless, "there is no presumption that money damages will be inadequate in connection with a motion for an injunction pendente lite" Nutrition 930 F.2d at 872, 18 USPQ2d

⁴²(...continued)
recouping the

(FF 666).

⁴³ Congress has authorized district courts in patent cases to grant injunctions "in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable" 35 U.S.C. §283. Injunctive relief preserves the legal interests of the parties against future infringement which may have market effects never fully compensable in money. Hybritech 849 F.2d at 1457, 7 USPQ2d at 1200.

at 1351. The availability of possible money damages is particularly significant when, as here, the administrative law judge has found no specific interest that needs protection through interim equitable relief which would terminate, pursuant to the present schedule, in May 1996. To the contrary, the evidence shows that AMP offered a license to Molex (FF 545, 546) which shows that AMP is willing to forgo its patent rights for compensation, and suggests that any injury suffered by AMP would be compensable in money damages.

Based on the foregoing, the administrative law judge finds that any damages possibly caused by any undercutting of prices by respondents, subsequent to the January 24, 1995 issuance date of the '792 patent, should be compensable in money and thus are not found irreparable.

d. Life Of The '792 Patent

Complainants argued that the useful life of the '792 patent, which term extends to the year 2012, is likely to be

Hence, it is argued that freedom from competition from the respondents is critical during the period, when temporary relief would be in effect, to permit the patentee AMP to recoup past investments in research and development and to obtain funds for future research and development. (CPost at 122 to 123).

Berg argued that the record indicates that metal latch connectors will be offered and that

(RBPost R at 82-83, SPost at 42).

When one thinks a product is being phased out it may never phase out. (FF 632). Moreover, while complainants argued that the useful life of the '792 patent is likely to be

(FF 632).

(FF 639).

(FF 641). Moreover, during closing argument the administrative law judge queried complainants' counsel as to whether the '792 patent covered the DIMM. Surprisingly, it was stated that:

In addition, there is evidence that

(FF 1, 12, 13, 14, 631, 639, 640, 751-754).

Based on the foregoing, the administrative law judge rejects AMP's argument to the effect that a "short life" of the '792 patent is relevant to the irreparable harm issue.

e. Unpatented Products

Complainants argued that the sale of AMP's patented metal latch SIMM connector brings with it the sale of associated, "unpatented" connector products from AMP's line of products; and that the respondents have benefited from their ability to offer package deals and a full range of connector products. (CPost at 126, 127).

Berg argued that the Commission standard in TEO investigations is to evaluate irreparable harm to the domestic industry; and that products which are not covered by the patent in issue are clearly not a part of the domestic industry. Accordingly, it is argued that any lost sales of such products are totally irrelevant. (RBPostR at 84, 85).

The staff argued that the standard for temporary relief is not whether respondents will benefit in some fashion in the absence of temporary relief but whether the domestic industry will be irreparably harmed in the absence of temporary relief. (SPost at 43).

Unpatented products are not part of the domestic industry. Thus, the sale of such items is found irrelevant on whether complainants have established that the domestic industry will be irreparably harmed in the absence of temporary relief.

Having considered, subsequent to the issuance date of the '792 patent, each of the factors of alleged price erosion, damage to complainants' reputation, the quantifiable nature of the alleged harm, the life of the '792 patent and lost sales of unpatented products, the administrative law judge finds that there is insufficient evidence to conclude that the domestic industry will be irreparably harmed in the absence of the requested temporary relief.

3. Balance of Harms

The balance of harms to the parties is a factor that must be considered in any motion for a temporary exclusion order. Pressure Transmitters Comm'n Op. at 18. Complainant argued that there will be no harm to respondents if temporary relief is granted. (CPost at 131-132). Berg argued that loss of customers caused by a TEO will have a substantially greater effect on Berg

which is significantly smaller in size and has a significantly smaller share of the SIMM connector market, than denial of temporary relief will have on AMP. (RBPost at 119). Tekcon has argued that the balance of harm between AMP and Tekcon clearly favors Tekcon

(RTPost at 20). The staff believes that complainants have been unable to establish that they will suffer irreparable harm in the absence of temporary relief and therefore the balance of harms does not favor the granting of temporary relief. (SPost at 44, 45). The administrative law judge has found that complainants have not established that the domestic industry will suffer any irreparable harm in the absence of temporary relief. Hence, a balance of the harms does not favor the granting of relief.

4. Public Interest

The last factor for consideration in any motion for a temporary exclusion order is the effect, if any, the issuance of the motion would have on the public interest. Complainants argued that the public interest behind temporary relief favors issuance of a temporary exclusion order. It argued that public interest favors valid patents; and that AMP and its licensee Molex can meet worldwide SIMM needs. (CPost at 133-135; CRem at 21 to 25).

Berg argued that, contrary to AMP's characterization, the Federal Circuit has rejected the view that the existence of a patent is a dominant factor in determining public interest (RBPostR at 87) and that AMP's argument ignores the fundamental fact that

(RBRem at 12). It also argued that the issues of patent misuse and antitrust defenses will be developed in the permanent phase of this investigation and that

competition in the important computer component market should not be foreclosed

(RBPost at 122). It further argued that the public interest favors the fostering of competition. (RBRem at 12, 13). The staff argued that, on the whole, any public interest does not counsel against the issuance of temporary relief. (SPost at 45-47).

Section 337(e)(1) provides that the Commission may exclude articles from entry into the United States during an investigation "unless, after considering the effect of such exclusion upon the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers, it finds that such articles should not be excluded from entry," 19 U.S.C. § 1337(e)(1). The evidence in this investigation has established that the plastic latch SIMM connectors have served as a substitute for the patented metal latch SIMM connector. Also, respondents' sales levels are not particularly high considering the market share of AMP and its licensee Molex. Moreover, if temporary relief were entered, respondents' products could enter the United States upon the posting of a bond. Thus, the administrative law judge finds that the public interest does not preclude granting temporary relief, assuming it has been established that there is a need for such relief.

5. Bonding

Commission Interim Rule 210.52(c), promulgated December 30, 1994, provides that the Commission, in determining whether to require a bond as a prerequisite to the issuance of temporary relief, will be guided by federal district court practice under Rule 65(e) of the Federal Rules of Civil

Procedure, (F.R. Civ. P.) which governs the posting of bonds in the context of preliminary injunctions. 59 Fed. Reg. 67622, 67629 (Dec. 30, 1994). Said Rule 65(c) states in pertinent part that:

No restraining order or preliminary injunction shall issue except upon the giving of security by the applicant, in such sum as the court deems proper, for the payment of such costs and damages as may be incurred or suffered by any party who is found to have been wrongfully enjoined or restrained.

Also, pursuant to Section 337(e) (1), articles subject to a temporary exclusion order are entitled to entry into the United States under a bond said by respondent(s) in an amount determined by the Commission. 19 U.S.C. §1337(e) (1). Section 337(e) (1) provides that the bond be set in an amount that is "sufficient to protect the complainant from any injury." *Id.* This is a new bonding standard in Section 337 temporary relief practice, occasioned by the amendments to Section 337 in the Uruguay Round Agreements Act.⁴⁴

Complainants argued that their exceptionally strong likelihood of success on the merits and AMP's strong financial solvency justify waiver of a security bond. Alternatively, complainants argued that if the Commission should determine that security is required, it should be no greater than \$50,000 because (a) their potential harm, if any, to respondents is minimal, (b) the "speculative nature of respondents' potential damages, if any, weighs against a large bond and (c) any temporary relief will be required for only a relatively limited time period, *viz.* to May 1996. (CRem at 15 to 19). Complainants argued that because of the "substantial" damage that respondents are causing to AMP's business

⁴⁴ Previously, the Commission set a respondent's bond by taking into account, among other things, the amount that would offset any competitive advantage to the respondent resulting from the respondent's alleged unfair method of competition or unfair acts in the importation or sale of the articles in question. *See* 19 C.F.R. §210.50(a) (3) (1994).

Hence, AMP requests respondents' bond be set at 40 percent. (CPost at 136-151; CRem at 1 to 5, 13 to 21).

Respondent Berg argued that in determining the need for a bond from complainants, the Commission is to be guided by practice under F.R. Civ. P. Rule 65; that said rule indicates that the courts are to require a bond from a complainant when there is a monetary risk unless the preliminary relief carries no risk of monetary loss to the respondents and complainant's likelihood of success on the merits is clear. Berg argued that temporary relief will cause Berg's customers to turn to other suppliers and cause Berg to lose at least

It also argued that the evidence indicates that the harm to Berg of temporary relief will be disproportionate to the number or value of metal latch SIMM connectors that would be excluded from entry. Berg further argued that the harm to Berg will be multiplied if temporary relief is granted because of its effects upon Berg's foreign customers. In addition, it is argued that AMP's evidentiary showing is not strong and that the Commission should consider that the one purpose served by requiring complainants to post a bond is to discourage them from using the proceedings for improper purposes or to harass respondents. Hence Berg argued that a "substantial" bond on complainants is clearly appropriate. (RBRem at 15-20).

Berg, as to any bond to be imposed on respondents, argued that if a bond

is found to be required, the most reliable standard to use in setting the amount is the value that AMP has placed on the asserted patent by licensing; that the Commission has expressed concern that the level of the bond in temporary relief proceedings must be set with more care than in permanent relief proceedings, particularly if the bonding level would operate to choke off imports;

Accordingly,

respondent Berg argued that respondents' bond today

(RBRem at 20-22).

Tekcon argued that if a TEO should issue, AMP should be required to post a bond; and that Tekcon should not be required to post a bond

In the alternative, Tekcon argued that it should only be required to post a bond equal to 7 percent of its U.S. sales of SIMM connectors. (RTPost at 53 to 57).

The staff argued that there be a complainants' bond of \$330,000 as a condition for temporary relief, with \$280,000 targeted and Berg and \$50,000 targeted for Tekcon for Berg's and Tekcon's. The staff argued that the portion of complainants' bond earmarked for potential losses to Hon Hai be set at zero. The staff argued that the seven percent bond proposed by Berg and

Tekcon is to low

The staff argued that the 40 percent rate proposed by complainants

(SRem at 24). The staff submitted that 13 percent is a reasonable bond to impose upon the respondents to allow for the importation and the sale of respondents' products during the time that temporary relief would be in effect which amount it considered sufficient to protect complainants from any harm caused by any importations and sales. (SPost at 47 to 53).

(SRem at 24, 25).

The administrative law judge, based on the present record, does not find that complainants have an "exceptionally strong likelihood of success "on all of the issues affecting the merits. Moreover, while complainants have referred to the "speculative nature of respondents' potential damages," it also argued the "substantial" harm damage that respondents are causing to AMP's business. Considering complainants' allegation of substantial harm damages, the administrative law judge finds \$330,000 a just figure for complainants' bond, as a condition for temporary relief, with \$280,000

targeted for Berg for \$50,000 targeted for Tekcon for potential Berg's and Tekcon's potential losses. Considering the period in question for any temporary relief, he further finds that each of the respondents should only be required to post a bond equal to seven percent of its respective U.S. sales of metal latch SIMM connector in issue.

6. Remedy

AMP argued that it is entitled to a general temporary exclusion order. (CRem at 1 to 5, 13 to 21). Berg argued that a general exclusion order is unjustified because there is no widespread pattern of unauthorized use and there are no business conditions indicating that foreign manufacturers are likely to enter the U.S. market. It argued that, if an exclusion order is to issue it should be a limited exclusion order specifically worded to exclude only those metal latch SIMM connectors determined to infringe the '792 patent. It further argued that a cease and desist order is unjustified. (RBRem at 5 to 9). Tekcon argued that no cease and desist order should issue in this investigation. (RTPost at 56, 57).

The staff argued that the evidence does not support the issuance of a general exclusion order at this stage of the investigation. It argued that under Certain Airless Paint Spray Pumps and Components Thereof Inv. No. 337-TA-90, 216 USPQ 465, 475 (1981) (Spray Pumps) a general exclusion order was deemed appropriate when there has been proof of (1) a widespread pattern of unauthorized use of the patented invention, and (2) certain business conditions, from which one might reasonably infer that foreign manufacturers other than respondents to the investigation may enter the U.S. market. The staff submitted that there is very little evidence at this stage of this investigation suggesting the possibility of circumvention of an exclusion

order limited to the named respondents. Also it argued that there are only a few small manufacturers in Taiwan that presently manufacture the products at issue and hence there is no information in the record indicating that these companies will make substantial direct sales to the United States during the pendency of this investigation. (SRem at 6 to 10).

The staff further argued that if the Commission determines that temporary relief should be granted, the Commission should issue a temporary limited exclusion order directed to the exclusion of those respondents' products that the Commission has reason to believe infringe the claims in issue. (SRem at 5 to 10). The staff does not recommend that the Commission prohibit the entry of downstream products in any temporary exclusion order in view of the "potential disruption of legitimate trade in products which will not themselves be subject to a finding of violation of Section 337." It argued that respondents' connectors constitute only 2 percent of the value of the motherboards of non-parties that would be excluded from entry into the United States. (SRem at 11 to 15). The staff further recommended that if the Commission determines that temporary relief is appropriate,

to warrant issuance of a cease and desist orders to accompany any limited exclusion orders. It also recommended that a cease and desist order be entered against Foxconn, Hon Hai's sales subsidiary in the United States, on the ground that respondents Hon Hai and Foxconn should not be subject to any lesser remedy than the participating respondents. (SRem at 16 to 20).

The administrative law judge finds that a general exclusion order is not warranted, See Spray Pumps. He also finds that any limited temporary order should not include downstream products. He does find that, should the

Commission determine that temporary relief is appropriate, cease and desist orders against the named respondents should accompany any limited exclusion orders.

VIII. Filing Date Issue

At closing argument the administrative law judge asked complainants' counsel how the '792 patent on its face states a filing date for Serial No. 26,280 of March 4, 1993, but yet in the file wrapper (CX-2) of the '792 patent a preliminary amendment identifies a filing date of March 2, 1993 with no identified Serial No. (see CX-2 at AW0000217) and an "Information Disclosure Statement" identified for Serial No. 26,280 a filing date of March 2, 1993 (see CX-2 at AW0000233). (Tr. at 4882).

Complainant's counsel stated that the March 4, 1993 filing date "appears to be" inaccurate (Tr. at 4886) and that it should be March 2, 1993. Berg's counsel was of the opinion that the March 4 date is correct because the March 2 date was not requested by the applicants. (Tr. at 4886). Berg's counsel argued that in the file wrapper (CX-2 at AW-0000212) the Patent Office denied the certificate of mailing date as the filing date, noting that the Express mail label is 3/3/93 and the date of receipt in the Patent Office is 3/4/93; and that there is a notice of abandonment (CX-2 at AW-000213) because applicants failed to respond to the Office action mailed Oct. 2, 1992. Hence, Berg argued that Ser. No. 645,151 went abandoned two days before the March 4, 1993, filing date and thus there is no co-pendency. (Tr. at 4900, 4901).

Complainants' counsel argued that he does not understand Berg's argument and also because it is something that has been raised for the first time the issue has been waived for the purposes of this TEO hearing. (Tr. at 4902, 4903). The staff argued that the administrative law judge has the authority

to deny the TEO motion on the ground of a filing date of March 4 proposed by Berg's counsel although the staff did not recommend that it be done. (Tr. at 4904, 4905).

Counsel for complainants then argued that the date of the final action was Oct. 2, 1992, setting a response period of three months, viz. Jan. 2, 1993, that the statute requires a six month response time, viz. April 2, 1993; that the petition for an extension of time to the Office action of October 2 stated that Ser. No. 645,151 is expressly abandoned upon the granting of this petition and the granting of a filing date to the continuation application (AW0000210) and that the second page of the petition states that the Patent Office may charge any additional fee required or credit for any excess fee paid (AW0000211). Complainant argued that what this means is that if there is no co-pendency based upon the March 2 verses the March 4 dates, the petition for extension of time states to the Patent Office that if six months are needed, take away the appropriate fee and grant applicants an extension until April 2, 1993, and thus is co-pendency. (Tr. at 4901, 4906). Berg's counsel argued that complainants' argument is hedged with a lot of "ifs" and there is no evidence that the Patent Office granted the additional one-month extension. (Tr. at 4907).

The administrative law judge again raised the question about the March 2 and March 4 dates in a telephone conference initiated by him on August 17, 1995. At the conference he set August 19 for any written comments by complainants on the matter and a date of August 23 for any opportunity to respond to complainants' comments. Complainants responded by enclosing in their letter of August 19, 1995 (ALJ Ex. 11), clear copies of pages AW0000210-211 of the '792 patent file history (CX-2) and stated that the information on

those pages clearly shows that the '792 patent's parent application (serial no. 07/645,151) was not abandoned until after the filing date of the '792 application (serial no. 08/026,280) and therefore, those applications were copending and the '792 patent is entitled to rely on the initial filing date of February 21, 1989). It was argued in support:

On October 2, 1992, the Examiner mailed an Office Action. (CX-2, p. AW0000207). The maximum time to respond to this Office Action was 6 months (April 2, 1993). On March 2, 1993, applicants prepared a file wrapper continuation form (AW0000215-216) and a petition for an extension of time (AW0000210-211). The petition specified that applicants were seeking an extension of time of two months to respond to the October 2, 1992 office action to file a file wrapper continuation application. The petition also stated that the application no. 07/645,151 was to be expressly abandoned conditioned upon the granting of the petition and the granting of a filing date to the continuation application. The petition specified that the amount of \$360 (the two month extension fee) was to be charged to a deposit account and that any additional fee required was to be charged to the deposit account.

The petition and file wrapper continuation form were sent to the PTO by express mail. Because of a discrepancy between the date on the certificate of mailing and on the express mail label (see page AW0000212), the PTO treated the new continuation application as being filed on March 4, 1993, outside of the two month extension period but still within the maximum statutory six month period for response to the office action. Accordingly, the PTO treated the petition for an extension of time as requesting three months and charged the deposit account with the fees required for a three month extension. This can be seen from the two lines of computer printout on page AW0000210. The first line reflects a charge of \$360 to The Whitaker Corporation's deposit account. (The number 116 is the PTO code for a 2 month extension). The second line reflects an additional charge of \$480. (The number 117 is the PTO code for a 3 month extension). Thus, \$840 was charged to the deposit account. As shown on page AW0000211, this was the fee for a three month extension. The date of authorization, not the date of actual withdrawal of funds, is considered by the PTO to be the date of payment. 37 C.F.R. § 1.25(b). [Footnote omitted]

Berg, in response in a letter dated August 23 (ALJ Ex. 11) argued that:

First, without recitation of any facts, AMP submits that the PTO treated its petition for a two (2) month extension of time as "requesting three months." There is simply no evidence to support this point. Indeed, the opposite seems to be the fact.

In the October 2, 1992, Office Action in the 151 application, the examiner, as authorized by 35 U.S.C. § 133, shortened the statutory period for response to three months (CX-2 p. AW0000207). Accordingly, a response to the Office Action became due January 2, 1993. AMP did not file a response to the October 2, 1992 Office Action before expiration of the shortened statutory period. Instead, on March 2, 1993, AMP filed a Petition and Fee for Extension of Time to file a continuation application under 37 C.F.R. § 1.62 (CX-2, p. AW0000210-11).

AMP specifically petitioned for an extension of the time to respond to Final Action dated October 2, 1992 for a period of 2 month(s) to file a continuation application under 37 C.F.R. § 1.62. AMP also expressly abandoned the 151 application 'continued upon the granting of the petition and the granting of a filing date to the continuation application,' i.e., AMP conditioned express abandonment of the 151 application on the granting of a filing date to the continuation application (CX-2, p. AW0000210). However, due to an AMP error, assumed for purposes herein to be unintentional, the March 2, 1993, filing date was not granted (CX-2, p. AW0000212). Instead, the 280 application was granted a filing date of March 4, 1993. Regardless of whether the 151 application was expressly abandoned, AMP never petitioned for more than a 2 month extension of time. It is noted that the AMP form used to petition for an extension of time does not contain language to the effect that if additional time is necessary, such additional time is requested.

Second, although the evidence indicates that a fee of \$480 was charged to AMP's account, there is an issue as to whether this charge was authorized by AMP, and if so, when such authorization was made. If authorization occurred after April 2, 1993 (the 6 month date from the October 2, 1992 Office Action), such authorization would be too late to maintain dependency.

* * *

Ultimately, the date on which AMP authorized the PTO to charge the fee for the additional one month extension of time must be established. Since AMP requested a two month extension of time for responding to the October 2, 1992 Office Action (which shortened the statutory period for response to three months), and since AMP did not respond to that Office Action, the 151 application went abandoned at the end of the two month extension period that AMP requested and paid for, i.e., on March 3, 1993. U.S.C. § 133, 37 C.F.R. § 1.136.

If there was any oral communication between AMP and the PTO, wherein AMP orally authorized payment of the fee for an additional one month extension of time, such communication would have had to occur on or before April 2, 1993. If such a communication occurred on April 3, 1993, or thereafter, it would have also been

necessary to file a petition to revive the abandoned application, along with payment of the appropriate revival petition fee, in order establish copendency. Since there is no petition to revive the abandoned applicant in the file wrapper, even in AMP did authorize payment of an extension fee after April 2, 1993, there would not be copendency with the later filed application.

Accordingly, AMP's conclusive allegation that the information submitted in its letter clearly establishes copendency is erroneous. As stated, in order to resolve these issues further discovery will be necessary. That discovery will include depositions of relevant persons at AMP and/or the Patent Office regarding any authorization to charge the fee for an additional one month extension. At the least, the issues raised herein establish a substantial question regarding the invalidity of the claims of the '792 patent such that AMP's motion for a TEO must be denied. [Footnote omitted] [Emphasis in original]

Berg argued that, if there is no copendency, the '765 patent and
are prior art.⁴⁵ Respondent
Tekcon, in a letter dated August 23 (ALJ Ex. 11) argued that, due to each of
copendency, the '792 patent is only entitled to a filing date of March 4,
1993.

The administrative law judge understands the importance in complainants obtaining a filing date of March 2, 1993. Yet it is a fact that the '792 patent as issued stated on its face a filing date of March 4, 1993. There has been no attempt to change that date on the face of the patent. Because the administrative law judge has found that complainants are not entitled to temporary relief, irrespective of the filing date of Serial No. 26,280, he is not deciding, at this time, what the filing date of Serial No. 26,280 should be. If this investigation proceeds, the parties will have the opportunity to further explore the issue.

⁴⁵ Complainants, in a letter dated August 28, 1995 to the administrative law judge (ALJ Ex. 11) enclosed an official copy of a Patent Office memorandum "that sets forth the policy of the PTO regarding petitions for extensions of time and that disposes of the issues raised by Berg and Tekcon."

IX FINDINGS OF FACT

I. The Parties

a. Complainants

1. Complainant AMP INCORPORATED (AMP) is a Pennsylvania corporation with a principal place of business at 470 Friendship Road, Harrisburg, Pennsylvania. (CX-237B; CX-237T).

2. AMP is the world's largest and number one manufacturer of electrical connectors and assemblies, with sales of over four billion dollars in 1994. (Bruggeworth, Tr. at 879).

3. AMP is in the SIMM connector business, and AMP has a broad product line of SIMM connectors in the market. (JX-8 at 56-57).

4. Total sales for the ICCP (Integrated Circuit Connector Products) Division in 1994 were approximately (Bruggeworth, JX-27 at 9).

5. The total sales for the ICCP Division in the first quarter of 1995 were approximately (Bruggeworth, JX-27 at 9).

6. AMP shipped its first metal latch SIMM connector in late 1989. (Bruggeworth, Tr. at 883-884).

7. Bruggeworth estimates sales of metal latch SIMM connectors manufactured by AMP since the time of their introduction in late 1989 to be (Bruggeworth, Tr. at 890).

8. AMP invests somewhere between of every sales dollar in research, development and engineering because "what our customers expect from us is innovation so that we solve their problems." (Bruggeworth, Tr. at 879-880).

9. AMP protects its investment in research and development by procuring and enforcing its intellectual property. In 1994, AMP ranked 25th on the list of U.S. corporations awarded U.S. patents. (CX-10A).

10. AMP's 1994 revenues were approximately \$4,000,000,000 or times that of AMP's next largest competition. (Bruggeworth, Tr. at 879).

11. Complainant THE WHITAKER CORPORATION (WHITAKER) is a Delaware corporation with its offices at Suite 450, 4550 New Linden Hill Road, Wilmington, Delaware. (CX-237B; CX-237T).

12. WHITAKER is a wholly owned subsidiary of AMP Investments, Inc., which in turn is a wholly owned subsidiary of AMP. (JX-46 at 24).

13. WHITAKER is the assignee of AMP's and AMP Investments' United States and foreign patents. WHITAKER provides legal services to AMP, particularly legal services related to the prosecution, licensing, and enforcement of patents. (CX-10A; JX-46 at 19-20).

b. Respondents

Berg

14. Mr. Quinten Berg was a former employee of AMP. In the early 1950's he moved to form his own business and to supply connectors at the high end of the technology. (Brigman, Tr. at 275).

15. Initially, Mr. Berg's primary customer was IBM. (Brigman, Tr. at 275).

16. Mr. Berg developed a number of high-end products for the computer marketplace. Some of these developments were patented. (Brigman, Tr. at 275).

17. From the 1950's until 1970, Mr. Berg's business grew. By 1972 the business had grown to about \$25,000,000. At that point, Mr. Berg's business was purchased by DuPont as part of DuPont's new venture into additional business segments. (Brigman, Tr. at 275).

18. Prior to 1972, DuPont focused primarily on its fibers, polymers and

chemicals businesses. DuPont in 1972 wanted to expand into areas it believed had long term growth opportunities.. (Brigman, Tr. at 275).

19. During the 1980's, DuPont decided to make an additional thrust in the electronics area and added significant resources and capital. As a result, its electronics division grew to a \$140 to \$150 million dollar business. (Brigman, Tr. at 276).

20. DuPont endeavored to grow the connector systems business based on the DuPont tradition of research and development. (Brigman, Tr. at 276).

21. During the 1989-90 time frame the Connector Systems Division was scrutinized and put under intense pressure to improve its performance. (Brigman, Tr. at 277).

22. In May 1992, DuPont announced that it would sell its Connector Systems Division through a public offering. (Brigman, Tr. at 278).

23. Following its announcement DuPont received over forty inquiries from investment companies as well as competitors. (Brigman, Tr. at 278).

24. DuPont received offers for its Connector Systems Division from AMP, Molex, Augat, Framatone and Hicks, Muse, Tate & Furst. (Brigman, Tr. at 278-79).

25. DuPont sold its Connector Systems Division to Hicks, Muse, Tate & Furst on March 1, 1993. (Brigman, Tr. at 279).

26. Respondent BERG Electronics, Inc.'s (BERG or Berg) corporate headquarters is in St. Louis, Missouri. (Anderson, Tr. at 2563-64).

27. BERG is a Delaware Corporation having its principal place of business at 825 Old Trial Road, Etters, Pennsylvania. (CX-237B, CX-239).

28. BERG's technical center is in Valley Green, Pennsylvania. (Brigman, Tr. at 282).

29. BERG's Americas regional headquarters is in Harrisburg, Pennsylvania. (Anderson, Tr. at 2564).

30. BERG manufactures products in the Americas, Europe and the Asia/Pacific region. The production location of a given product is determined by customer needs. (Brigman, Tr. at 281).

31. BERG's United States manufacturing facilities are in Clearfield, Pennsylvania; Emigsville, Pennsylvania; Hazelton, Pennsylvania; West Springfield, Massachusetts; New Brunswick, New Jersey; Kansas City, Missouri; Gardena, California and Freemont, California. (Anderson, Tr. at 2564; Brigman, Tr. at 281-82).

32. BERG has overseas manufacturing facilities in Holland, France, Taiwan, Singapore, Japan, Korea and a joint venture in India. (Brigman, Tr. at 282).

33. BERG manufactures a wide range of printed circuit board connectors, cable assemblies and sockets. (Brigman, Tr. at 279, CX-129).

34. BERG offers over 100,000 active part numbers. (Brigman, Tr. at 280).

35. BERG's annualized revenue for 1995 is approximately
(Brigman, Tr. at 283).

36. BERG's after-tax earnings in 1994 were (Brigman, Tr. at 283).

37. BERG's metal latch SIMM connectors are made in Taiwan and in China. (CX-1977 at 11081, JX-8 at 104-05).

38. Berg metal latch SIMM connectors are typically sold in Taiwan and put on mother boards, which may be built in Taiwan, and imported into the U.S. as mother boards or as part of a computer. (JX-12 at 73-75).

39. BERG'S predecessor Du Pont introduced its metal latch connector in the Fall of 1992. (Anderson, Tr. at 2689).

Tekcon

40. Respondent Tekcon ELECTRONICS CORP. (Tekcon) is a Taiwanese corporation having a principal place of business at No. 292, Min-Tsu Rd., Lu-Chou Shiang, Taipei Hsien, Taiwan, R.O.C. (CX-241).

41.

42. Tekcon was established in 1984 and a "Company Profile" dated January 1995 stated its total stated employees as "400". Tekcon has its headquarters in Taipei with branch offices in Hong Kong, Singapore and the United States. (CX-186 at BN 339).

43. According to testimony of T.W. Ting, Tekcon Electronics entered the metal latch SIMM connector business in 1993. (Ting, Tr. at 1717).

44.

45. Tekcon began to sell its 1580 Series metal latch SIMM connectors in July 1993 and its 3580 Series metal latch SIMM connectors in November 1993. Tekcon stipulated that it began to design its Tekcon metal SIMM connector in 1993. (CX-282 at Interrog. 4; CX-334, Stip. 19).

46. Since Tekcon entered the metal latch SIMM connector market in 1993,

Tekcon has sold and/or offered for sale three basic types of metal latch SIMM connectors:

1580 Series (2x30, vertical)

3580 Series (1x72, vertical)

3582 Series (1x72, 40° low profile)

(CX-163; CX-282 at Interrog. No. 3(a), CX-334, Step 30).

47. The Tekcon group of companies include Tekcon Electronics Corporation (Taiwan R.O.C.), Tekcon International Corp. (Taiwan R.O.C.), Tekcon Pacific Pte. Ltd. (Singapore), Tekcon Hong Kong (Hong Kong) and Tekcon American Corp. (California, U.S.). (CX-282 at Interrog. No. 1).

48. Tekcon American has two functions: sales and engineering. (JX-16 at 81).

49. Tekcon American sells metal latch SIMM connectors. (JX-16 at 81).

50. The metal latch SIMM connectors sold by Tekcon American are purchased from Tekcon Electronics. (JX-16 at 82; CX-334, Step 6, 7).

51. The Chinese name for Tekcon is Tai-Jei. (JX-16 at 82; CX-334, Step 39).

52.

Foxconn/Hon Hai

53. Respondent HON HAI PRECISION INDUSTRY CO., LTD. (Hon Hai) is a Taiwanese corporation having a principal place of business at 2 Tzu Yu St., Tu-cheng, Taipei Hsien, Taiwan R.O.C. and at 66 Chung Sha Road, Tucheng, Taiwan. (ALJ EX. 9).

54. Hon Hai manufactures electrical connectors in Taiwan which are imported and sold in the United States. (JX-11 at 19, 24).

55. FOXCONN INTERNATIONAL, INC. (Foxconn) is a California corporation having its principal place of business at 930 W. Maude Avenue, Sunnyvale, California. (CX-243).

56. Foxconn is a subsidiary of Hon Hai. (CX-243; Ting, Tr. at 1805).

57. Terry Gou is President of Foxconn and Chairman of Hon Hai. (JX-11 at 15, 19-20).

58. Foxconn offers for sale and sells in the United States electrical connectors manufactured by Hon Hai. (JX-11 at 19, 24).

59. Richard Simonic is familiar with Foxconn. According to Simonic, Foxconn is a Taiwanese company that manufactures and sells a wide variety of electrical interconnect products, including SIMM sockets. Simonic believes Foxconn is associated with another company called Hon Hai. It is his understanding that the two companies are essentially one in the same. (Simonic, Tr. at 1127).

60. Simonic has seen Hon Hai SIMM sockets that have a capital H marked in the molded housing. Simonic has also seen connectors that have the name Foxconn stamped on them. (Simonic, Tr. at 1127).

61. Exhibit CPX-29 is a vertical orientation metal latch SIMM connector with tin-plated contacts. There is an indication on the connector that it is a Hon Hai connector. (Simonic, Tr. at 1132-1133).

62. [THERE IS NO FINDING NO. 62]

63. [THERE IS NO FINDING NO. 63]

64. [THERE IS NO FINDING NO. 64]

65. AMP obtained a Foxconn metal latch SIMM connector from
which in turn obtained it from
the international procurement organization for Taiwan. (Simonic, Tr.

at 1134, CX-210).

66. Foxconn was quoting to a price of just under each for part number AP07200-A4, a metal latch SIMM connector. (Simonis, Tr. at 1135, CX-210).

67. A catalog for SIMM sockets from Foxconn shows that the part number for vertical 72 position .050 center line plastic latch connector is AP07200-L4, which differs from the part number in CX-210 only in the suffix designation of L4 rather than A4. (Simonis, Tr. at 1135-36; CX-209, p. 25; CX-210).

2. The Products at Issue

68. The products at issue in this investigation relate to certain electrical connectors. Those connectors are used to connect a "SIMM card" (SIMM being an acronym for "single in-line memory module") to a circuit board. The SIMM card is sometimes referred to as a "daughter card," while the circuit board is known as a "mother board." SIMM cards are commonly used to provide memory for computers. SIMM cards are popular because they provide a large amount of memory in a small space and are designed to be inserted or removed by the end user. This gives the manufacturers, sellers, and users a simple way to upgrade computer memory. Thus, SIMM cards are designed to be inserted and removed from the mother board. The mother board, in contrast, forms a permanent part of a device, such as a computer. (CX-239; CX-241).

69. The electrical connectors at issue have commonly been referred to as "SIMM connectors" or "SIMM sockets." The SIMM connectors connect daughter cards to mother boards whereby the daughter cards are rotated into the SIMM connectors. At the hearing, witnesses variously referred to the SIMM connectors at issue as "cam-in" or "rotate and latch" type connectors.

(CX-239; CX-241; Bruggeworth, Tr. 882; Williamson, Tr. at 430; Strich, Tr. at 2863; JX-22 at 109).

70. A push-pull (direct insert) SIMM connector is a connector where the SIMM card (module) is inserted directly into the connector in a generally straight, axial movement while a cam-in (rotate and latch) SIMM connector is a connector where the SIMM board is put into the connector and rotated to create the normal force on the contact. (JX-25 at 10-12).

70(a). Strich was willing to use the term "straight in" connector in his testimony. Thus he testified (Tr. at 2869):

Q Do you remember Dr. Williamson using the phrase straight-in connector?

A Yes, I do.

Q Is that a phrase you use?

A Not generally, but I accept that phrase and am willing to use it for this discussion.

70(b). Strich was familiar with the terms "direct insert," "straight in" and "push/pull" connectors. Thus he testified (Tr. at 3031):

Q Mr. Strich, you're familiar with the direct insert connector?

A Yes, as we've defined it along --

Q It's sometimes called a straight in connector.

A That's correct.

Q Or a full force connector?

A Not necessarily.

Q How about a push/pull connector?

A I have also heard that term

71. The rotate and latch or "cam in" SIMM connector in issue permits the insertion and removal of daughter cards by a convenient procedure. The

daughter card is inserted in the SIMM connector at an angle and is then rotated into its operating position. During rotation, the SIMM connector's electrical contacts engage the contact pads of the daughter card. As the daughter card is rotated into its operating position, the daughter card engages a portion of resilient latches located at each end of the SIMM connector. This engagement causes the latches to be cammed or moved away from the card, thereby allowing for the continued rotation of the card into its operating position. (CX-239; CX-241).

72. Once the daughter card is in its operating position in the SIMM connector in issue, the latches spring back and serve to secure the daughter card in place. Because the latches are resilient, the daughter card may be removed and replaced by moving the latches away from the daughter card and then rotating the card out of its operating position. (CX-239; CX-241).

73. As of 1985, a SIMM connector was a device to make electrical connection between a single in-line memory module and a printed circuit board and normally had a plastic housing of some type and a metal electrical contact for interfacing with the printed circuit board. (JX-25 at 9-10).

74. The first cam-in, or rotate and latch type SIMM connectors had plastic housings with integral plastic latches. (CX-239; CX-241).

75.

(Woloszyn, Tr. at 750).

76. The particular SIMM connectors in issue have separate, resilient metal latches. (CPX-001; CPX-002; CPX-003; CPX-004; RBPX-26, CPX-028).

3. The '792 Patent and Technical Experts

77. U.S. Patent No. 5,383,792 (the '792 patent), entitled "Insertable Latch Means For Use In An Electrical Connector" and containing 55 claims,

issued January 24, 1995 to Iosif Korsunsky, Richard C. Schroepfer, and Monte L. Kopp. Its specification contains some six columns. (CX-1).

78. The entire right, title, and interest in the '792 patent is assigned to complainant WHITAKER. (CX-3).

79. Application Serial No. 26,280 that led to the '792 patent according to the title page of the '792 patent, was filed in March 1993 as a continuation of abandoned application Serial No. 645,151 filed on January 22, 1991, which was a continuation of the application Serial No. 313,261 filed on February 21, 1989 which led to U.S. Patent No. 4,986,765 (the '765 patent) (RBX-121). The '765 patent issued on January 22, 1991. (CX-1; CX-2).

80. Independent claims 1, 8, 13, 16, and 19 of the '765 patent (RBX-121) read:

1. As electrical connector for connecting a first substrate to a second substrate, the second substrate being rotatable relative to the first substrate between a first and second position, the electrical connector having a housing with a recess provided therein, the recess extends from proximate a first end of the housing to proximate a second end of the housing, and is dimensioned to receive the second substrate therein, contact terminals are positioned adjacent to the recess, and are configured to make an electrical connections with the second substrate when the second substrate is in the second position in the recess, the electrical connector comprising:

a latch receiving cavity provided in the housing and extending from a first surface of the housing toward a second surface, the latch receiving recess positioned proximate to the first end of the housing and proximate the recess of the housing;

a separate resilient latching means positioned in the latch receiving cavity, the latching means having a mounting portion which is positioned in the latch receiving cavity, and a latching portion which extends from the latch receiving cavity toward the recess;

whereby as the second substrate is rotated from the first position to the second position, the latching

portion of the latching means cooperates with the second substrate to maintain the second substrate in the second position.

8. As electrical connector for connecting a first printed circuit board to a second printed circuit board, the electrical connector comprising:

a housing of dielectric material, mountable on the first printed circuit board, the housing including a base having an opening for receiving the second printed circuit board;

a separate resilient latch on at least one end of the opening; and

a latch receiving recess adjacent at least on [sic] end of the opening in which the latch is positioned, the latch receiving recess having an open upper end, the latch being insertable into the recess through the upper end, the latch having two arms extending upwardly from a base portion, an inner arm being adjacent the opening and an outer arm engaging an end wall of the housing to secure the latch in the recess, the inner arm being deflectable toward the outer arm, the inner arm having a latch projection extending inwardly from the inner arm, the latch projection extending in a direction such that engagement between the latch projection and the second printed circuit board, during rotation of the second printed circuit board into the housing, causes the inner arm to be deflected toward the outer arm.

13. An electrical connector for connecting a printed circuit board to a second printed circuit board, the electrical connector comprising:

a housing of dielectric material, mountable on the first printed circuit board, the housing including a base having an opening for receiving the second printed circuit board;

a plurality of contacts positioned in the base adjacent the opening for establishing an electrical interconnection to the second printed circuit board;

a separable metal latch on at least one end of the opening, the latch having a flexible inner arm and an outer securing arm; and

a latch receiving recess adjacent at least one end of the opening in which the latch is positioned, the

mental latch being secured in the housing by engagement of the securing arms with the housing, the resilient arm having a latch projection, the latch projection extending in a direction such that engagement between the latch projection and the second printed circuit board, during rotation of the second printed circuit board into the housing, causes the resilient arm to be deflected toward the securing arm.

16. An edge connector for interconnecting first and second circuit boards, the edge connector comprising;

an insulating housing having a plurality of contacts along the length of the insulating housing and openings at both ends of the insulating housing; and pair of board latching devices to be inserted and secured in the openings in the insulating housing, each of the board latching devices is made of a metal plate member having a latching section to latch the second circuit board and a releasing section to release the latching of the second circuit board.

19. A circuit board latching device for a connector comprising:

a mounting section to be mounted in an opening in an insulating housing for a connector,

a circuit board latching section to latch a circuit board; and

a releasing section for externally releasing the latching of the circuit board by the circuit board latching section;

wherein the mounting, latching and releasing sections are integrally made of a metal plate member.

81. Complainant The Whitaker Corporation is the owner of the '792 patent by assignment. (CX-1, CX-2 at AW0000278-279; CX-3).

82. AMP is a parent company of Whitaker and is licensed under the '792 patent. (Seitchik, JX-46 at 24; CX-237, ¶ 8, 1).

83. In the '792 patent under the headings "References Cited," "Foreign Patent Documents" and "Other Publication," the U.S. Patent and Trademark Office cited some 160 references.

84. The abstract of the '792 patent (CX-1 states:

An electrical connector (2) has a dielectric housing with contact terminals (22) which extend therethrough. The contact terminals (22) are provided to electrically connect a mother board (4) to a daughter card (6). A board receiving opening (20) is provided in the housing for reception of the daughter card (6) therein. Proximate to the board-receiving opening (20) are latch receiving openings (24) which are dimensioned to receive insertable latch members (40) therein. The latch members (40) are manufactured from material having the desired resilient and strength characteristics, thereby insuring that the latch members (40) will be effective over many cycles. Each latch member (40) has a resilient section (42) for cooperating with the daughter card (6) and a mounting section (44) for cooperating with the mother board (4). The resilient section (42) is able to accommodate a range of board sizes without taking a permanent set. If required the latch members (40) can have enhanced electrical characteristics so that the power and ground connections between the mother board (4) and the daughter card (6) can be made through the latch members (40): [Emphasis added]

85. Under the heading "Field Of The Invention," the '792 patent discloses that the invention is directed to a latch means for use in an electrical connector and in particular it is disclosed that the latch means are insertable into a housing of the connector to cooperate with respective circuit boards, the latch means being configured to accommodate the wide tolerance range associated with circuit boards. (CX-1 at col. 1, lines 10-16).

86. Under the heading "Background Of The Invention" it refers to a type of prior art electrical connector described in Grabbe U.S. Patent No. 4,737,120 (the '720 patent) wherein the configuration of the latch member provides the member with the resilient characteristics required to allow the latch member to cooperate with the daughter board to maintain said board in electrical engagement with terminals of the connector. Said electrical connector provides electrical connection between contact surfaces of a

daughter board (or daughter card) and contact areas of a mother board. The connector has contacts positioned in the connector housing that extend from a first mating surface of the connector to a second mating surface. The contacts have posts which extend from the connector and make electrical engagement with the contact areas of the mother board. A daughter card is inserted into the connector and rotated to an operating position. As this rotation occurs, contact projections of the connector's contacts engage the contact surfaces of the daughter card. In this connector "it is essential that latch arms be provided to cooperate and maintain the daughter board in the operational position" in order for the electrical engagement "to be maintained." (CX-1 at col. 1, lines 30-33).

87. The '792 patent, commenting on the connector of the '120 patent, under the heading "Background Of The Invention," states:

However, several problems are associated with the configuration of the latch member described ... [in the '120 patent]. As the latch members are molded from plastic material, and as the resilient characteristics of plastic is not significant, the latch members are likely to take a permanent set, particularly when the connector is used over many cycles. This likelihood is increased due to the fact that the latch members must have a relatively thin width when molded. This requirement reduces the durability of the latch members, so that the latch members are only strong enough to support approximately 25 cycles (insertions and removals of the printed circuit board). Consequently, if the electrical connector is to be used over many cycles, the risk of failure of the electrical connector is greatly increased.

It is also important to note that a relatively small displacement of the molded latch is enough to cause the latch to take a permanent set. Consequently, as the daughter board can vary in size, and still fall within the tolerance limits for the connector, it is possible that a relatively large board will be inserted into the slots, and then be followed by a relatively small board. The insertion

of the large board into the slot can cause the plastic latch to take a permanent set, so that as the small board is inserted, the latch will not be effective in maintaining the board in the slot, resulting in an ineffective connector.

It would therefore be advantageous if the latch members could be made from a material having the desired resilient characteristics. This requires the latch members to be separately manufactured and inserted into the housing after the housing has been molded.

Another problem associated with the connector disclosed in U.S. Pat. No. 4,737,120, and other similar connectors, relates to the mounting posts. Generally, mounting posts cooperate with openings in the mother board to position and maintain the connector and terminals in place until soldering or the like occurs. However, it is important to note, that the dimensions of the posts must be minimized, as the space available on printed circuit boards is at a premium. Consequently, the width of the posts must be held to a minimum in order for the connector to occupy a minimal amount of board real estate. This miniaturization of the post causes the post to be relatively weak, particularly because the post is manufactured from molded plastic. Therefore, as the post is relatively weak, it is possible that damage will occur to the post during the shipping of the connector, thereby resulting in an ineffective connector.

It would therefore be advantageous if the post could be strengthened without the need to increase the area which the post occupies. The utilization of this type of post would require the post to be attached to the connector in some manner, as the post would no longer be able to be molded at the same time as the housing of the connector.

(CX-1 at col. 1, line 45 to col. 2, line 31).

88. According to the "Summary Of The Invention" at col. 2, lines 33 to col. 3, lines 1-2, of the '792 patent, the invention of the '792 patent relates to an improved latch member provided at each end of an electrical connector. (CX-1 at col. 2, lines 34-35).

89. The "Summary of the Invention" states that it is possible to

provide the latch member with adequate electrical properties, so that the latch members may be used to supply power from the mother board to the daughter board. (CX-1 at col. 2, lines 42 to 46). Complainant interprets this statement such that a mounting section could or could not be used. (Tr. at 4865, 4860).

90. The "Summary of the Invention" states (CX-1 at col. 2, lines 46 to 57):

An insertable latch member is described for use in an electrical connector. The electrical connector has a housing with a first major surface and an oppositely facing second major surface. A daughter or baby board receiving recess or slot extends from the first major surface toward the second major surface. Contact terminals are provided adjacent to the baby board receiving recess and extend from the baby board receiving recess to beyond the second major surface. Latch receiving recesses are provided adjacent to the baby board receiving recess, and are dimensioned to receive the latch member therein.

Complainants' position is that while the above is found in the preferred embodiment represented by the Figures of the patent, it may also be found in other connectors that fall within the scope of the claims. (Tr. at 4870).

91. While the "Summary Of The Invention" states that one embodiment has a resilient arm which extends from a base portion of the resilient section, complainants' position is that the resilient arm does not have to look exactly like what is shown in the specification. (Tr. at 4871).

92. The second paragraph under "Summary Of the Invention" has the sentence "[t]he electrical connector has a housing with a first major surface and an oppositely facing second major surface." (CX-1 at col. 2, lines 47 to 50). Complainants' position is that while that sentence discloses what is found in the embodiment of the figures of the patent, the feature may also be found in other connectors that fall within the scope of the claims. (Tr. at 4870).

93. The last paragraph of the "Summary Of the Invention" has the sentence that "[o]ne embodiment of the latch member has a resilient section and mounting section [and the] resilient section has a resilient arm which extends from a base portion of the resilient section". (CX-1 at col. 2, lines 58 to 62). Complainants' position is that such does not have to "look exactly like what is shown in the specification." (Tr. at 4871). That paragraph also has the sentence "[a] free end of the resilient arm is formed to provide a projection which extends in a direction which is essentially perpendicular to the longitudinal axis of the resilient arm." (CX-2, col. 2, lines 63 to 65). Complainants' position is that describes what is shown in the embodiment but "that doesn't limit the invention to what is said here or what is described there." (Tr. at 4872).

94. Under the heading "Brief Description Of The Drawings," at col. 3, lines 3 to 26 of the '792 patent, the patent briefly describes FIG. 1 thru FIG. 7, all of which relate to the same embodiment (CX-1). (Tr. at 4863). Fig. 1 is a perspective view of a connector with an insertable latch member provided therein. Fig. 3 of the '792 patent is a cross-sectional view of an end portion of the connector showing the latch member provided in a latch receiving recess. (Kirk, Tr. at 3281).

95. Under the heading "Detailed Description Of The Invention" at col. 3, lines 3 to 26 of the '792 patent, the patent (CX-1), thru FIG. 1 of the '792 patent below, discloses a low-insertion force connector (labeled 2) having at least one separate, resilient latch (labeled 40), located near an end (labeled 18) of the connector:

[SPACE FOR FIGURE 1]

96. Under the heading "Detailed Description Of The Invention" the '792 patent (CX-1) discloses that the connector of the preferred embodiment of the '792 patent has a plastic housing and metal latches positioned at each end; that latch (labeled 40) has a base portion (labeled 46) mounted within a latch receiving recess (labeled 24), and a latching portion projection (labeled 54) with an engagement portion (labeled 58); that the latch (labeled 40) secures a daughter card (labeled 6) in the card receiving slot (labeled 20) of the connector; and that the latch is preferably made of metal. Figures 4, 5 and 6 below of the '792 patent, show the latch removed from the connector:

[SPACE FOR FIGURES 5 & 6]

97. In the sole embodiment of the invention disclosed in the '792 patent and represented by all the figures of the '792 patent the section of the connector that receives the separate latch shown in Figures 4-6 in detail is a recess structure. On this point the "DETAILED DESCRIPTION OF THE INVENTION" states that:

Proximate ends 18 of base 8 are latch receiving recesses 24, as best shown in FIGS. 1 through 3. Each latch receiving recess 24 is provided proximate the board receiving opening 20. As is shown in FIGS. 1 and 2, each latch receiving recess 24 has three side walls 26 which extend from an upper surface 28 of the connector housing toward the bottom surface 16 of the base.

(CX-1 at col. 3, lines 53-65).

98. Under "Detailed Description Of The Invention" the '792 patent discloses that the connector has a "resilient arm" that extends from the base portion to engage the daughter card. (CX-1 at col. 4, lines 16-17).

99. Under "Detailed Description Of The Invention" of the '792 patent the resilient arm of the connector is described having (1) an angled portion which extends at an angle from the base portion, (2) an intermediate portion which extends from an end of the angled portion, and (3) a latch projection which is provided at the upper surface of the intermediate portion in a direction which is essentially perpendicular to the intermediate portion. (CX-1 at col. 4, lines 17-28).

100. Under "Detailed Description Of The Invention" the '792 patent explains the resilient characteristics of the latch (i.e. the capability of bending and returning to an original position) required to insure for the proper and continued use of the latch member over many cycles. (CX-1 at col. 4, lines 37-41).

101. Under "Detailed Description Of The Invention" the '792 patent discloses that the resilient arm is caused to be moved toward the end of the

connector by deformation of the arm, followed by a snapping back of the resilient arm when the daughter card is in an operating position to maintain the connector and daughter card in an operating position. (CX-1 at col. 5, lines 31-42).

102. Under "Detailed Description Of The Invention" the '792 patent discloses (CX-1 at col. 4, lines 55-64):

It should be noted that the configuration of the securing arm and the shoulder of the side wall allows the latch member 40 to be inserted into the latch member receiving recess 24 through the upper surface 28 of the connector housing. As insertion occurs, securing arm 60 will be caused to move to the right as viewed in FIG. 3, thereby placing the securing arm in a stressed position. Once the latch member is fully inserted into the recess 24 . . .

103. Under "Detailed Description Of The Invention" the '792 patent discloses that the resilient characteristic of the latch allows for a "deformation" of the latch when the latch is engaged. Because the latch is resilient, the latch will not remain permanently in a deformed condition when it is disengaged. (CX-1 at col. 5, lines 62 - col. 6, line 5).

104. Under "Detailed Description Of The Invention" the '792 patent discloses that the base portion has a resilient arm extending from one end of the base portion to engage the daughter card. (CX-1 at col. 4, lines 14-37).

105. Under "Detailed Description Of The Invention" the '792 patent discloses that the latch projection is configured to engage a daughter card that is rotated into an operating position. This engagement causes the resilient arm of the latch to be moved toward the end of the connector. When the daughter card reaches an operational position, the card enters a board receiving opening, thereby disengaging the latch projection and allowing the resilient arm to snap back into place, securing the card in an operational

position. (CX-1 at col. 5, lines 30-42).

106. The '792 patent specification states that the invention eliminates a problem of prior art latch connectors that "when a relatively wide card was inserted into the connector, it would cause the plastic latches to take a permanent set." (CX-1 at col. 5, line 66; col. 6, line 3). The '792 patent specification also states, referring to the embodiment disclosed in the '792 patent, that due to the fact that the latch member (labeled 40) is insertable into the housing, and therefore is not molded from the same plastic material as the housing, the latch member is usable over "many more cycles" than the prior art plastic latch connectors which allows the latch members to be manufactured "to maximize their resilient and strength characteristics." (CX-1 at col. 5, lines 50-61).

107. The specification of the '792 patent discloses that the invention eliminates a problem of prior art plastic latch connectors that "could not retain the (daughter) card in position." (CX-1 at col. 6, lines 1-5).

108. The '792 patent, under "Detailed Description Of The Invention," which extends from col. 3, line 29 to col. 6 line 64 with the claims commencing at col. 6, lines 65, discloses (CX-1, col. 4, lines 45 to 48) "other configurations of the resilient arms are possible. In fact, it is conceivable that due to space considerations, each latch member provided in the connector may have a slightly different appearance. The operation of the each latch member, no matter the configuration, is essentially identical to the operation of the latch member described herein."

109. The '792 patent (CX-1 at col. 6, lines 56 to 64) states:

Changes in construction will occur to those skilled in the art and various apparently different modifications and embodiments may be made without departing from the scope of the invention. The matter

set forth in the foregoing description and accompanying drawings is offered by way of illustration only. It is therefore intended that the foregoing description be regarded as illustrative rather than limiting.

110. With respect to the portion of the '792 patent titled "Detailed Description Of The Invention" (CX-1), there are no details as to any embodiment other than the single embodiment disclosed in the figures of the '792 patent. (Tr. at 4875, 4876).

111. Complainants' technical expert John Brian Peter Williamson was accepted as an expert in the field of electrical connectors. (Tr. at 148).

112. Respondent Berg's technical expert James Kirk was accepted as an expert in the field of electrical connectors. (Tr. at 3207).

113. Respondent Berg's technical expert Robert Strich was accepted as an expert in connector technology. (Tr. at 2867).

114. In the abstract of the '792 patent at approximately lines 6 to 8, "proximate to the board receiving openings (20) are latch receiving openings (24) which are a dimension to receive insertable latch members (40) therein." (CX-1, Kirk, Tr. at 3233).

115. In the specification of the '792 patent at col. 3, line 34, one finds: "The connector (2) has an elongated housing (8), having a plurality of contact receiving cavities (10), located in elongated base." This passage indicates that there are cavities intended to have a contact enter them. (CX-1, Kirk, Tr. at 3234).

116. In the specification of the '792 patent at col. 3, line 42, one finds: "The cavities are in communication with board receiving opening (20)." This passage indicates that there exists a receiving opening to accept the board. (CX-1, Kirk, Tr. at 3234).

117. In the specification of the '792 patent at col. 3, line 54, one finds: "Each latch receiving recess (24) is provided proximate the board receiving opening (20)." This passage indicates that the receiving recess is being used to have an object -- in this case a latch -- enter in the recess. (CX-1, Kirk, Tr. at 3235).

118. In the specification of the '792 patent at col. 3, line 66, one finds: "Host receiving openings (34), extend from the bottom surface (16) of base (8)," This passage indicates that the word "receiving" is yet again being used to indicated that something is going in, something is entering a cavity or a recess. (CX-1, Kirk, Tr. at 3235).

119. In the specification of the '792 patent at col. 4, line 28, one finds "A board edge receiving opening or channel (56) is provided in the latch production (54)." This passage indicates that the word "receiving," as used in the specification, is intended to indicated that something is entering in a cavity or a recess. (CX-1, Kirk, Tr. at 3235).

120. The '792 specification states that the daughter card 6 is positioned in the board receiving opening (CX-1 at col. 5, lines 27-28); that post receiving openings 34 extend from the bottom surface 16 of base 8 to the bottom walls 36 of recesses 24 and that as shown in FIG. 3, openings 34 have lead-in surface 38 provided proximate the bottom walls 36 of the recesses 24 (Col. 3, lines 66-68, col. 4, lines 1-2) and that latch members 40 are positioned in the latch receiving recesses 24. (Col. 4, lines 3-5).

121. [THERE IS NO FINDING NO. 121]

122. It is also stated in the detailed description portion of the '792 patent that "as the portion 68 is inserted into the opening 70, the portion 68 is allowed to deform due to the presence of slot 74" and that "[t]his

deformation allows the board engagement portion 68 to be inserted into the opening 70 ... [with this] type of deformation causes portion 68 to exert a force on the walls of the opening when the portion 68 is properly inserted therein, thereby insuring that the portion 68 will be maintained in the opening 70." (CX-1 at col. 5, 18-25).

123. It is further stated in the detailed description portion of the '792 patent that "[d]ue to the fact that the latch member 40 is insertable into the housing, and is therefore not molded from the same plastic material as the housing, the latch member 40 is usable over many more cycles." (Col. 5, lines 50-55).

124. It is also stated in the detailed description portion of the '792 patent that "as daughter boards are inserted and removed, each resilient arm 48 will not take a permanent set, and will therefore be usable over a great number of cycles." (Col. 5, lines 58-61).

125. Referring to the prior art, the '792 specification states that therein "when a relatively wide card was inserted into the connector, it would cause the plastic latches to take a permanent set . . . and thus when a relatively small card was inserted, the latches could not retain the card in position . . . [and that with] the present invention this result is eliminated, as the latch members 40 will not take a permanent set due to the varied dimensions of the cards." (Col. 5, lines 66-68, col. 6, lines 1-5).

126. The '792 specification further teaches that in prior art connectors, the failure of the mounting post "during insertion" resulted in a major problem, as the failure of the post caused the entire connector to become in effect. (Col. 6, lines 15-20). However, it is taught that in the present invention the mounting section 44 is made from material having a

significant strength characteristics and therefore damage to the mounting section during insertion is essentially eliminated resulting in a much more reliable connection. (Col. 6, lines 21-16).

127. Independent claim 17 of the '792 patent, which claim is in issue, reads as follows:

An electrical connector for connecting a daughter card and a mother board, the daughter card being rotatable relative to the mother board between a first and a second position, the electrical connector having a housing with a card receiving slot dimensioned to receive the daughter card therein, and the connector having contact terminals positioned adjacent to the card receiving slot and configured to make an electrical connection with the daughter card when the daughter card is in the second position in the card receiving slot, the electrical connector comprising:

a latch receiving section provided near an end of the housing adjacent the card receiving slot of the housing;

a separate resilient latch having a base portion which is positioned in the latch receiving section, and a latching portion which extends from the latch receiving section toward the card receiving slot, the latch positioned in the latch receiving section such that the latch receiving section cooperates with the latch to limit movement of the latching portion in a direction transverse to the length of the card receiving slot;

whereby after the daughter card is rotated from the first position to the second position, the latch cooperates with the daughter card to maintain the daughter card in the second position.

128. Dependent claim 18 of the '792 patent, which claims is in issue, reads as follows:

An electrical connector as recited in claim 17 wherein the latch is a metal member.

129. Dependent claim 20 of the '792 patent, which claim is in issue, reads as follows:

An electrical connector as recited in claim 18 wherein the latching portion of the latch is positioned outside of the latch receiving section, and extends toward the card receiving slot of the housing.

130. Dependent claim 21 of the '792 patent, which claims is in issue, reads as follows:

An electrical connector as recited in claim 20 wherein the latching portion has an engagement section with a lead-in surface provided thereon, such that as the daughter card is rotated from the first position to the second position, the daughter card will engage the lead-in surface, causing resilient arm of the resilient latch to be crammed away from the card receiving slot, thereby allowing for the continued rotation of the daughter card to the second position.

131. Dependent claim 23 of the '792 patent, which claim is in issue, reads as follows:

An electrical connector as recited in claim 18 wherein the latching portion has an engagement section with a lead-in surface provided thereon, such that as the daughter card is rotated from the first position to the second position, the daughter card will engage the lead-in surface, causing resilient arm of the resilient latch to be crammed away from the card receiving slot, thereby allowing for the continued rotation of the daughter card to the second position.

131(a). Claims 1, 7 and 8 of the '792 patent, which claims are not in issue, read:

1. An electrical connector for connecting a daughter card and a mother board, the daughter card being rotatable relative to the mother board between a first and a second position, the electrical connector having a housing with a card receiving slot dimensioned to receive the daughter card therein, and the connector having contact terminals positioned adjacent to the card receiving slot and configured to make an electrical connection with the daughter card when the daughter card is in the second position in the card receiving slot, the electrical connector comprising:

a latch receiving recess provided at an end of the housing near the card receiving slot of the housing;

a separate resilient latch having a base portion which is positioned in the latch receiving recess, and a latching portion which extends from the latch receiving

recess toward the card receiving slot;

whereby after the daughter card is rotated from the first position to the second position, the latch cooperates with the daughter card to maintain the daughter card in the second position.

7. An electrical connector as recited in claim 2 wherein the latch receiving recess is defined by a base and at least one wall.

8. An electrical connector as recited in claim 7 wherein the latch receiving recess is defined by a base and four walls.

132. Independent claim 17 specifies a connector having a latch receiving section provided near an end of the housing adjacent the card receiving slot. The claim further specifies that the connector has a separate resilient latch that has a base portion positioned in the latch receiving section and a latching portion which extends from the latch receiving section toward the card receiving slot. The latch receiving section of claim 17 cooperates with the separate resilient latch to limit movement of the latching portion in a direction transverse to the length of the card receiving slot. This means that the latch receiving section limits movement of the latching portion toward the back of the connector housing. These features are visible in the Figures 1, 5 and 6 of the '792 patent. (Williamson, Tr. at 3316; CX-1, col. 8).

133. The phrase "latch receiving section" in claim 17 does not suggest any type of structure nor any type of physical configuration to one of ordinary skill in the art other than the location of the section when other language of the claim is considered. (Kirk, Tr. at 3228; Williamson CX-18).

134. Complainant admitted that the preamble of claim 17, i.e. from the beginning of the claim to the term "comprising" is in the prior art (Tr. at

4912). Complainant's position is that the novelty of claim 17 is not merely a connector with a separate metal latch but rather the limitations following the word "comprising" have to be met. (Tr. at 4912, 4913, 4914).

135. One of the three inventors named on the '792, viz. the first named inventor Iosif Korsunsky, who has been employed by AMP since September 1979 and started as a and who today is a on the technical side of AMP in addition to being a

testified in deposition:

(JX-35 at 6, 7, 73, 74).

136. According to expert witnesses for complainants and respondents, the preamble of claim 17 of the '792 patent describes a type of electrical connector that was in existence prior to the filing date of the '792 patent, viz., the rotate and latch electrical connector. (Williamson, Tr. at 503; Kirk, Tr. at 3227).

137. The first time the phrase "latch receiving section appears in the '792 patent is in claim 17. (Kirk, Tr. at 3233).

138. The term "resilient" refers to the characteristic of the latch that allows it to be bent and to spring back to an original position after being disengaged. (Strich, Tr. at 2928). Because the latch is resilient, the latch will not remain permanently deformed when it is engaged or disengaged but rather when the latch is disengaged it will snap back in place. (CX-1, col. 5, lines 38, 39, line 62-col. 6 line 5).

139. A latch is a device that holds two structures together and a latching function means holding something in place (Strich, Tr. at 3051). It is a structure which cooperates and maintains the daughter board in the operational position. (CX-1, col. 1, lines 30-33, 40-43).

140. A "separate latch" is one that is manufactured separate from the manufacture of the housing of the electrical connector (CX-1, col. 2 lines 5-7) and thus is not integrally molded with the connector housing. (CX-1, col. 5, line 53).

141. The term "base portion" is the part at the base of the resilient section of the latch. (CX-1, col. 2, lines 66-67, col. 4, lines 14-17).

4. Prosecution History Of The '792 Patent

Serial No. 313,261

142. AMP filed patent application U.S. Serial No. 313,261 on February 21, 1989, having a title of "Insertable Latch Means For Use In An Electrical Connector" and naming Messrs. Korsunsky, Schroepfer and Kopp as inventors. (RBX-120 at 1-24).

143. None of the inventors could recall any date of conception or reduction to practice of the invention of the 765 and 792 patent earlier than January 1989. (JX-42, 38; JX-35, 35; JX-34 at 18-19).

144. U.S. Serial No. 313,261 did not include the phrase "latch receiving section." (RBX-120 at 1-24).

145. In U.S. Serial No. 313,261, AMP did not file any claims reciting structure for accepting the latch other than that structure forming a recess. (RBX-120 at 1-24).

146. Mr. Wolstoncroft, a patent attorney for complainants, prepared and prosecuted application Serial No. 313,261 on which U.S. Patent No. 4,986,765 issued naming Iosif Korsunsky as an inventor. (RBX-120).

147. The application of U.S. Serial No. 313,261 contained seven (7) Figures of one embodiment of a connector with an insertable latch member provided therein, and 19 claims related to an electrical connector for connecting first and second electrical components. (RBX-120 at 1-24).

148. The independent claims, as originally filed in Serial No. 313,261, (CX-2) read:

1. An electrical connector for connecting a first electrical component to a second electrical component, the

electrical connector comprising:

a first major surface and an oppositely facing second major surface;

a second electrical component receiving recess extending from the first major surface toward the second major surface, the second electrical component receiving recess having contact terminals provided adjacent thereto, the contact terminals extending from the receiving recess to beyond the second major surface;

latch receiving recess provided adjacent to the second electrical component receiving recess;

latch means provided in the latch receiving recesses, the latch means having second electrical component engagement means and first electrical engagement means which extend from the second electrical component engagement means to beyond the second major surface of the connector;

whereby the second electrical component engagement means cooperate with the second electrical component to maintain the second electrical component in the receiving recess, and the first electrical component engagement means cooperates with the first electrical component to maintain the connector in position relative to the first electrical component.

* * *

10. An insertable latch member for use in an electrical connector, the electrical connector having a first major surface and an oppositely facing second major surface, a baby board receiving recess extending from the first major surface toward the second major surface, the baby board receiving recess having contact terminals provided adjacent thereto, the contact terminals extend from the baby board receiving recess to beyond the second major surface, latch receiving recesses provided adjacent the baby board receiving recess, the latch receiving recesses being dimensioned to receiving the latch member therein, the latch member comprising:

a resilient section and mounting section which is integrally attached to the resilient section;

the resilient section having a resilient arm which extends from a base portion of the resilient section, a free end of the resilient arm being formed to provide a projection which extends a direction which is essentially perpendicular to the longitudinal axis of the resilient arm;

the mounting section extends from the base portion of the

resilient section, the mounting section being dimensioned to be received in an aperture of a printed circuit board; and

the resilient section and the mounting section forming an electrically conductive pathway across which electrical signals are conducted.

15. An electrical connector having a housing which is dimensioned to receive an electrical component in a receiving cavity thereof, the electrical connector comprising:

latch receiving recesses provided adjacent to the receiving cavity;

latch members provided in the latch receiving recesses, the latch members having resilient sections and mount sections which are integrally attached to the resilient sections;

the resilient sections having resilient arms which extend from base portions of the resilient sections, free ends of the resilient arms are formed to provide projections which extend from the latch receiving recesses to cooperate and maintain the electrical components in the receiving cavity;

the mounting sections extend from the base portions of the resilient sections, the mounting sections being dimensioned to be received in apertures of a printed circuit board; and

the resilient sections and the mounting sections forming an electrically conductive pathway across which electrical signals are conducted.

149. None of the original 19 claims of U.S. Serial No. 313,261 recited a limitation that one electrical component is rotated relative to a second electrical component. All of the original claims required a latch receiving recess. (RBX-120 at 14-18).

150. In the first Office Action, dated October 4, 1989, received from the Patent Office in U.S. Serial No. 313,261, all 19 claims of the application were rejected under 35 U.S.C. § 102(b) as being clearly anticipated by U.S. Pat. No. 4,129,351 to "Sugimoto, et al. note Fig. 10 and column 18." (RBX-120 at 41-44; RBX-129).

151. Sugimoto discloses a connector assembly for a printed board having

electrical contacts formed on at least one surface of its edge portion. (RBX-129, Col. 1, ll. 6-9).

152. AMP failed to respond to the first Office Action received in U.S. Serial No. 313,261 within the statutory deadline and a Notice of Abandonment was mailed by the Patent Office on May 8, 1990. (RBX-120 at 46).

153. On May 8, 1990, AMP filed a petition to revive U.S. Serial No. 313,261 on the basis that the abandonment was unintentional, along with a response to the Office Action of October 4, 1989. (RBX-120 at 47-57).

154. In the May 8, 1990, response to the first Office Action in U.S. Serial No. 313,261, AMP deleted the original claims 1-19 and added new claims 20-38 with some of these claims reciting an electrical connector for connecting a first substrate to a second substrate, with a limitation of the second substrate being rotatable relative to the first substrate. (RBX-120 at 47-56).

155. In the May 8, 1990, response AMP argued that a difference between the claimed invention and Sugimoto is that the elastic retaining member 74 of Sugimoto is completely retained in the vertical groove of the housing, while the resilient latch of the AMP invention is positioned in a latch receiving recess, with a portion of the resilient latch extending from the latch receiving recess to the board receiving opening 20. (RBX-120 at 54).

156. In the May 8, 1990, response AMP argued that a difference between the claimed invention and Sugimoto is that the elastic retaining member of Sugimoto must be positioned in the substrate receiving recess, while the latch of the AMP invention is provided in a separate latch receiving recess. (RBX-120 at 55).

157. In the May 8, 1990, response in distinguishing over prior art, AMP

represented to the Patent Office:

The newly presented claims are directed to an electrical connector for connecting a first substrate to a second substrate. The second substrate 6 is positioned in an opening 20 of the connector. In the initial position, the second substrate is positioned at an angle relative to the first substrate. The second substrate is then rotated, forcing the substrate 6 to engage the latching projection 54. This causes the resilient arm 48 to be moved toward the end 18 of the connector, as indicated by the lines drawn in phantom in Figure 3. The resilient deformation of the resilient arm allows the second substrate to continue its turning motion. When the substrate is essentially perpendicular to the first substrate, the second substrate enters an opening 56, thereby disengaging the projection, and allowing the resilient arm to snap back in place.

Sugimoto et al. has an elastic retaining member provided therein. The retaining member 74 is constructed by an elastic plate of metal or plastic which has a generally Y-shaped configuration. A pair of side arm portions 76 and 76' extend from an intermediate portion, and are formed with projections 80 and 80' at the free ends thereof. The projections protrude inwardly from the arm portions and are spaced apart from each other a distance which is slightly smaller than the thickness of the printed circuit board 20. The side arm portions are elastically deformable toward and away from each other. The side arm portions have a length which is substantially equal to the depth of the vertical groove 58 in the housing structure 52.

From the foregoing description, it is apparent that several differences exist between the claimed invention of this application and the invention described in Sugimoto, et al. First the elastic retaining member of Sugimoto is completely retained in the vertical groove of the housing. In contrast, the resilient latch of the present invention is positioned in a latch receiving recesses [sic], with a portion of the resilient latch extending from the latch receiving recess to the board receiving opening 20. In fact, the portion of the resilient latch which projects from the latch receiving recess is essential to the operation of the connector. If the latch were completely retained in the recess, as taught by Sugimoto, the latch would be useless to the operation of the connector.

A second difference relates to the manner in which the second substrates are moved into their respective connectors. In the present invention, the second substrates are rotated into engagement with respective legs of the resilient latch. This causes the respective legs to resiliently deform as required. The resilient characteristics of the latch insures that the respective legs, which cooperate with the substrates, will not be stressed beyond their elastic limits. In the Sugimoto invention, the

second substrates are inserted into the elastic retaining members using a linear action. In other words, the substrates are inserted between the arms of the elastic retaining members, causing the arms to move away from each other as insertion occurs. The housing acts as an overstress to prevent the elastic retaining members from being deformed beyond their elastic limits.

A third difference relates to the fact that in the present invention the latch is provided in a separate latch receiving recess. In Sugimoto, the elastic retaining member must be positioned in the substrate receiving recess. This relative positioning of the latch and retaining member is necessitated by the manner in which the second substrate is moved into cooperation with the terminals of the connectors. Consequently, the latch of the present invention cannot be positioned as taught by Sugimoto.

In view of the newly presented claims and the differences provided between the invention as claimed in the newly presented claims and the invention of Sugimoto, it is respectfully submitted that the 35 U.S.C. 102(b) rejection is respectfully overcome.

(RBX-120, amendment dated May 10, 1990 at 7 to 9).

158. Prior to submitting the May 8, 1990, response Wolstoncroft prosecuted another patent application naming Iosif Korsunsky as the inventor of a connector which issued as U.S. Patent No. 4,710,134, and which cited U.S. Patent 4,420,207 to Nishikawa as a prior art reference. (JX-50 at 38-39; RBX-196; RBX-130).

159. AMP never cited Nishikawa to the PTO during prosecution of the applications that matured into the '765 and '792 patents. (RBX-118; RBX-119; RBX-120; JX-50 at 46).

160. After the filing of the May 8, 1990, response a Notice of Allowance was issued and claims 20-38 issued as claims 1-19 in U.S. Patent No. 4,986,765 on January 22, 1991. (RBX-120 at 63-64; RBX-121).

Ser. No. 645,151

161. On January 22, 1991, AMP filed U.S. Serial No. 645,151, which was a continuation of application U.S. Serial No. 313,261. (RBX-119).

162. AMP filed U.S. Serial No. 645,151 with the exact same 19 claims as

originally filed in U.S. Serial No. 313,261 and each of which required a latch receiving means. In an Office Action mailed October 15, 1991, the Patent Office provided the exact same rejection of these claims, including the rejection under 35 U.S.C. § 102 over Sugimoto, as that in U.S. Serial No. 313,261. (RBX-119 at 18-22, 46-47; RBX-120 at 14-18, 41-43; CX-2 at AW0000147-171).

163. On April 14, 1992, AMP filed remarks and an amendment to the October 15, 1991, Office Action in U.S. Serial No. 645,151. The amendment cancelled claims 1-19 and added new claims 20-61. New claim 34, after further amendment became claim 17 of the '792 patent, required a latch receiving section rather than a latch receiving recess. Claim 34 also required that the latch receiving section have "at least one wall." Claim 34 read:

34. An electrical connector for connecting a daughter card and a mother board, the daughter card being rotatable relative to the mother board between a first and second position, the electrical connector having a housing with a card receiving slot dimensioned to receive the daughter card therein, and the connector having contact terminals positioned adjacent to the card receiving slot and configured to make an electrical connection with the daughter card when the daughter card is in the second position in the card receiving slot, the electrical connector comprising:

a latch receiving section provided near an end of the housing adjacent the card receiving slot of the housing, said section having at least one wall;

a separate resilient latch positioned in the latch receiving section, the latch having a base portion which is positioned in the latch receiving section, and a latching portion which extends from the latch receiving section toward the card receiving slot, said latch positioned in the latch receiving section such that at least one wall of the latch receiving section cooperates with the latch to limit

movement of the latching portion in a direction transverse to the length of the card receiving slot;

whereby after the daughter card is rotated from the first position to the second position, the latching portion of the latch cooperates with the daughter card to maintain the daughter card in the second position. (Emphasis added).

(RBX-119 at 52-68, CX-2 at AW0000176-182).

164. Claim 35 read: "An electrical connector as recited in claim 34 wherein the latch is a metal member.

165. In the remarks of the April 14, 1992 response, it was argued that although the October 15, 1991 rejection under 35 U.S.C. § 102(b) was directed to claims 1-19, the rejection as being anticipated by Sugimoto et al. would be discussed in terms of new claims 20-61. It was argued (CX-2 AW0000192 to 194):

Sugimoto et al has an elastic retaining member provided therein. The retaining member 74 is constructed of an elastic plate of metal or plastic which has a generally Y-shaped configuration. A pair of side arm portions 76 and 76' extend from an intermediate portion, and are formed with projections 80 and 80' at the free ends thereof. The projections protrude inwardly from the arm portions and are spaced apart from each other a distance which is slightly smaller than the thickness of the printed circuit board 20. The side arm portions are elastically deformable toward and away from each other. The side arm portions have a length which is substantially equal to the depth of the vertical groove 58 in the housing structure.

From the foregoing descriptions, it is apparent that several differences exist between the claimed invention of this application and the invention described in Sugimoto, et al. First, the elastic retaining member of Sugimoto is completely positioned in the vertical groove of the housing. In contrast, the resilient latch of the present invention is positioned in a latch receiving recess, with a portion of the resilient latch extending from the latch

receiving recess to the board receiving slot 20. In fact, the portion of the resilient latch which projects from the latch-receiving recess is essential to the operation of the connector. If the latch were completely positioned in the recess, as taught by Sugimoto, the latch would be useless to the operation of the connector.

A second difference relates to the manner in which the second substrates are moved into their respective connectors. In the present invention, the second substrates are rotated into engagement with respective arms of the resilient latch. This causes the respective arms to resiliently deform as required. The resilient characteristics of the latch insures that the respective arms, which cooperate with the substrates, will not be stressed beyond their elastic limits. In the Sugimoto invention, the second substrates are inserted into the elastic retaining members using a linear action. In other words, the substrates are inserted between the arms of the elastic retaining members, causing the arms to move away from each other as insertion occurs. The housing acts as an overstress to prevent the elastic retaining members from being deformed beyond their elastic limits.

A third difference relates to the fact that in the present invention the latch is provided in a separate latch receiving recess. (CX-2 at AW0000192-194). In Sugimoto, the elastic retaining member must be positioned in the substrate receiving recess. This relative positioning of the latch and retaining member is necessitated by the manner in which the second substrate is moved into cooperation with the terminals of the connectors. Consequently, the latch of the present invention cannot be positioned as taught by Sugimoto.

In view of the newly presented claims and the differences provided between the invention as claimed in the newly presented claims and the invention of Sugimoto, it is respectfully submitted that the 35 U.S.C. § 102(b) rejection is respectfully overcome.

166. In the April 14, 1992, response AMP amended the application, but did not make any amendment concerning the term "insertable" in: (1) the Title of the application, (2) the Abstract Of the Invention, (3) the Field Of the Invention (Col. 1, l. 13 of 792 patent), or (4) the Summary of the Invention

(Col. 2, l. 46 of 792 patent). (RBX-119 at 53).

167. In the April 14, 1992, response to the October 15, 1991, Office Action AMP amended the specification at page 3, line 25, to delete "Each" before "latch member" and substitute therefor "One embodiment of the" before "latch member," (CX-1, 2, line 36). (RBX-119 at 53).

168. In the April 14, 1992, response to the October 15, 1991, Office Action in U.S. Serial No. 645,151, AMP amended the specification at page 4, line 10, to delete "Each" before "latch member" and substitute therefor "One embodiment of the" before "latch member," (CX-1, col. 2, line 58). (RBX-119 at 53).

169. In the April 14, 1992, response AMP amended the specification at page 10 such that "One of the most significant advantages" was deleted and "Another advantage of the embodiment" substituted therefore. (CX-1, col. 6, line 27; CX-2 at AW0000177). This paragraph where the amendment was made relates to the mounting post of the latch member. Claim 17 is not limited to a latch which would include a mounting post and also claim 17 does not recite a mounting post (CX-1). Claim 3, not in issue, does recite a latch that has a "mother board cooperating portion ... board" which relates to a mounting post.

170. In the April 14, 1992 response, at page 4, line 36, of the specification after "recess" the phrase "or slot" was asked to be added. Hence the patent specification now reads "A daughter or baby board receiving recess or slot extends from the first major surface ... (CX-1, col. 2, lines 49-50). At page 6, line 6 of the specification after "recess" the phrase "or" slot was asked to be added. However, the phrase "of the side walls 26, the recess extending from the upper" (CX-1, col. 1, line 61) was not so amended as requested.

171. As of the filing of the April 14, 1992, response to the October 15, 1991 Office Action the specification did not include the phrase "latch receiving section" and the term "latch receiving section" did not appear in the application until it was recited in claim 34 added in the April 14, 1992, response. (RBX-119 at 6-22, 58-59).

172. AMP submitted claim 34 to the Patent Office on April 14, 1992. (RBX-119 at 6-22, 58-59). AMP did not become aware of BERG's metal latch SIMM connector design until DuPont's Scott enclosed a "sample of DuPont's redesigned metal latch SIMM" in her letter of August 4, 1992 to AMP's Seitchik. (RBX-245; Tr. at 4895-4898).

173.

174.

175. On May 27, 1992, AMP filed a Supplemental Amendment in U.S. Serial No. 645,151 under the heading REMARKS it was stated:

This amendment is further to that mailed April 14, 1992, and these remarks supplement those accompanying that prior amendment.

The remarks in the Amendment mailed April 14, 1992 contain an error. At pages 19 and 20 they refer to a latch receiving "recess." However, claims 35 and 58, and the claims that depend therefrom, do not recite a latch receiving "recess," but rather a latch receiving "section." As a result, applicants ask that the examiner consider the remarks at page 19, lines 7, 8, 10, and 12 and page 20, line 6 as referring to a "latch receiving recess" or a "latch receiving section." While the terms "recess" and "section" are

not synonymous, applicants' remarks with respect to the prior art Sugimoto patent apply to claims including a latch receiving "recess" as well as those including a latch receiving "section."

Also, certain claims have been amended to correct typographic errors. New claims 63-75 are presented to claim the invention in an alternative fashion. The remarks in the prior Amendment support the patentability of these new claims as well.

For the foregoing reasons, applicant submit that claims 20-75 currently presented are patentable over the prior art and earnestly solicit an early allowance.

(RBX-119 at 78, 82; CX-2 at AW0000201-206).

176. The remarks at page 19, lines 4-13 and page 20, lines 4 to 6 of the amendment dated April 14, 1995, which encompass the lines the solicitor referenced in the supplemental amendment dated May 27, 1992 read:

First, the elastic retaining member of Sugimoto is completely positioned in the vertical groove of the housing. In contrast, the resilient latch of the present invention is positioned in a latch receiving recess, with a portion of the resilient latch extending from the latch receiving recess to be board receiving slot 20. In fact, the portion of the resilient latch which projects from the latch receiving recess is essential to the operation of the connector. If the latch were completely positioned in the recess, as taught by Sugimoto, the latch would be useless to the operation of the connector.

* * *

A third difference relates to the fact that in the present invention the latch is provided in a separate latch receiving recess. In Sugimoto, the elastic retaining member must be positioned in the substrate receiving recess.

(CX-2 at AW0000193-194).

177. In an Office Action mailed October 2, 1992, the Examiner rejected all claims of the pending application in U.S. Serial No. 645,151 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 4,986,765. (RBX-119 at 85-

86).

Ser. No. 026,280

178. Some five months after receipt of the double patenting rejection in the Office Action of October 2, 1992 in U.S. Serial No. 645,151, AMP filed Serial No. 026,280 a continuation application U.S. Serial No. 645,151. The title page of the '792 patent, states that Serial No. 026,280 has a filing date of March 4, 1993. (RBX-118; CX-2).

179. On March 2, 1993, AMP filed a Preliminary Amendment in U.S. Serial No. 026,280, along with a Terminal Disclaimer under 37 C.F.R. § 1.321(b) disclaiming any part of any patent granted on "this application" that would extend beyond the expiration date of U.S. Patent No. 4,986,765. The Preliminary Amendment states that the continuation application which became Ser. No. 026,280 was filed on March 2, 1993. (RBX-118 at 5, 19, 55-56; CX-2 at AW0000217-232).

180. In the March 2, 1993, Preliminary Amendment filed by AMP in U.S. Serial No. 026,280, AMP amended pending claim 34 to delete the phrase "said section having at least one wall," which was recited in reference to the phrase "latch receiving section." (RBX-118 at 9-10; CX-2 at AW0000221). As a result of the amendment dated March 2, 1993, claim 34 was amended as follows (bracketed portions refer to deleted matter by the amendment and the underlined refers to added matter):

34 (amended). An electrical connector for connecting a daughter card and a mother board, the daughter card being rotatable relative to the mother board between a first and a second position, the electrical connector having a housing with a card receiving slot dimensioned to receive the daughter card therein, and the connector having contact terminals positioned adjacent to the card receiving slot and configured to make an electrical connection with the daughter card when the daughter card is in the second position in the card receiving slot, the electrical connector comprising:

a latch receiving section provided near an end of the housing adjacent the card receiving slot of the housing[, said section having at least one wall];

a separate resilient latch [positioned in the latch receiving section, the latch] having a base portion which is positioned in the latch receiving section, and a latching portion which extends from the latch receiving section toward the card receiving slot, [said] the latch positioned in the latch receiving section such that at least one wall of the latch receiving section cooperates with the latch to limit movement of the latching portion in a direction transverse to the length of the card receiving slot;

whereby after the daughter card is rotated from the first position to the second position, the [latching portion of the] latch cooperates with the daughter card to maintain the daughter card in the second position.

(CX-2, AW0000221-222) Simultaneous with that amendment, the application added new claims 78 and 79, which ultimately issued as claims 30 and 31 of the '792 patent. These claims read as follows:

78. An electrical connector as recited in claim 34 wherein the latch receiving section includes a base and at least one wall.
79. An electrical connector as recited in claim 78 wherein the latch receiving section includes a recess defined by a base and four walls.

(CX-2 at AW0000230). In the remarks accompanying these amendments, the applicants states:

Applicants have also amended claims 20, 22, 23, 24, 26, 29, 30, 32, 34, 36, 40, 44, 46, 50, 52, 55, 58, 62, 64, 66, 68, 72 and 74. These amendments clarify the claims, and remove unnecessary and superfluous language. They do not add any new matter to the application.

* * *

New dependent claims 76-79 are directed to features of the specific embodiment disclosed in the Detailed Description of The Invention (see page 6,

lines 1-10 of the specification). They contain no new matter. Claims 76 and 77 are dependent upon independent claim 20 and claims 78 and 79 are dependent upon independent claim 34. Therefore, their allowance will directly follow from the allowance of independent claims 20 and 34.

(CX-2 at AW0000221-22, 232-232).

181.

182. At the time of filing of the Preliminary Amendment on March 2, 1993, in U.S. Serial No. 026,280, AMP was involved in the litigation over the '765 patent in AMP Incorporated v. Augat Inc., pending in the United States District Court For The District of Massachusetts, Civil Action No. 92-10066 WD. (RBX-118 at 22).

183. On May 26, 1993, in U.S. Serial No. 026,280, AMP submitted an Information Disclosure Statement citing some 160 references to the Patent Office. (RBX-118 at 22-54). In the Information Disclosure Statement it was stated:

Pursuant to MPEP § 2001.06(c), Applicants advise the Examiner that the grandparent of the present application, U.S. Patent No. 4,986,765, is presently involved in litigation. That litigation is AMP Incorporated v. Augat Inc., pending in the United States District Court For The District of Massachusetts, Civil Action No. 92-10066 WD.

The following will make a record certain documents which have been separated into three groups. The first and largest group of these documents were received from Augat during the course of discovery in the above-identified litigation. The second group consists of two patent brought to the attention of applicants' assignee by Molex Incorporated, a licensee

under U.S. Patent No. 4,986,765. The third group consists of the references that were cited and made of record during the prosecution of U.S. Patent No. 4,986,765.

* * *

These documents were made of record in the grandparent of the present application, U.S. Patent No. 4,986,765. In accordance with 37 C.F.R. § 1.98(d), copies of these documents are not enclosed.

In the above-noted litigation, Augat has asserted that the subject matter of claims 16 and 19 of U.S. Patent No. 4,986,765 is anticipated by U.S. Patent No. 3,803,533, and that the subject matter of claims 1, 2, 4, 5, and 17 of U.S. Patent No. 4,986,765 is rendered obvious in view of U.S. Patents Nos. 3,803,533 and 4,713,013. Applicants strongly disagree with Augat's assertions that certain claims of U.S. Patent No. 4,986,765 are invalid. However, Augat's arguments are not applicable here because the present application does not include the claims at issue in the AMP v. Augat litigation.

In addition, Augat has asserted that a certain prototype SIMM connector was offered for sale by AMP more than one year prior to the filing date of U.S. patent No. 4,986,765, and therefore constitutes prior art under 35 U.S.C. § 102(b). However, the enclosed Declaration of Roger L. Thrush shows that the SIMM prototype was never sold or offered for sale.

Copies of a Preliminary Invention Disclosure for and drawings showing the prototype at issue are attached as Exhibit A to Mr. Thrush's Declaration. Augat bases its on-sale assertion on the quotation attached as Exhibit B to Mr. Thrush's Declaration. However, neither of the products referred to in this quotation is the prototype shown in the drawings of Exhibit A, Thrush Declaration, ¶ 6. On the contrary, the quotation was printed approximately six months before the prototype was even conceived. Id. In fact, the prototype was never sold or offered for sale, and was never developed beyond an experimental stage. Id., ¶ 5.

Applicants bring this information to the Examiner's attention only because Augat has made reference to it in litigation. The evidence shows that the prototype is not prior art under 35 U.S.C. § 102(b).

It is believed that none of the documents cited herein, alone or in combination, discloses or suggests the invention claimed. It is applicant's desire, however, to have these documents made of record.

(CBB-118 at 22-54; CX-2 at AW0000233-243).

184. In the Information Disclosure Statement submitted to the Patent Office on May 26, 1993, in U.S. Serial No. 026,280, AMP cited U.S. Patent No. 3,270,313 to Sautois and U.S. Patent No. 4,579,411 to Cobaugh, which had been brought to AMP's attention by Molex, a licensee under the 765 patent. (RBX-118 at 30; RBX-318).

185. When submitting the Information Disclosure Statement of May 26, 1993, in U.S. Serial No. 026,280, Wolstoncroft relied only on the files of the parent application of U.S. Serial No. 026,280 and the foreign counterparts thereto. (JX-50 at 42).

186. As part of the Information Disclosure Statement submitted on May 26, 1993, in U.S. Serial No. 026,280, AMP submitted a Declaration of Roger Thrush, stating to the Patent Office that the SIMM connector shown in that Declaration was "never sold or offered for sale." (RBX-118 at 31-32, 44-54).

187. In the Declaration Of Roger Thrush submitted to the Patent Office on May 26, 1993, in U.S. Serial No. 026,280, and received in the mailroom on May 27, 1993, referring to his Preliminary Invention Disclosure of April 22, 1986, included as Exhibit A, Thrush wrote:

1. I have been employed by AMP Incorporated since 1983. I am presently a Development Engineering Manager. In 1986 my title was Development Engineer.
2. On April 22, 1986, I submitted a Preliminary Invention Disclosure ("PID") for a "module clip" to be used on AMP's Diplomate SIMM connectors. A copy of the PID is attached as Exhibit A.
3. The module clip shown in Exhibit A did not serve to

secure or latch a daughter card in the card receiving slot of the connector. Rather, the purpose of the module clip was to bias the daughter card that is inserted in the card receiving slot to reduce movement and the resulting fretting corrosion that can result from micro-motion of the daughter card. The module clip was to be used in full force direct insert SIMM connectors, as opposed to cam-in SIMM connectors.

4. AMP made experimental prototypes of connectors using the module clip shown in Exhibit A. Testing of the prototypes showed that the module clip idea was not worth pursuing.
5. AMP never made production connectors having module clips of the type shown in Exhibit A. AMP never sold or offered such connectors for sale.
6. Exhibit B is a quotation dated October 17, 1985 submitted by AMP to IBM for two different models of SIMM connectors. This quotation was printed approximately six months before I conceived the module clips shown in Exhibit A. As a result, neither of the two types of SIMM connectors referred to in the quotation of Exhibit B could have utilized module clips of the type shown in Exhibit A.

Exhibit B is a quotation for a "30 Position SIMM Socket with Latch."

(RBX-118 at 43-44; CX-2 at AW0000255-256).

188. When the Declaration Of Roger Thrush was submitted to the Patent Office on May 26, 1993, in U.S. Serial No. 026,280, the information that Wolstoncroft had was the information attached to the Declaration and he does not recall conducting any sort of investigation for other information. (JX-50, 32-33; RBX-118 at 44-54).

189.

190. On September 20, 1993, AMP submitted a Petition To Make Special Under 37 C.F.R. § 1.102 the application of U.S. Serial No. 026,280, because of "actual infringement "of the pending claims. An affidavit of Wolstoncroft, in

support, stated in part:

2. Augat Incorporated and Berg Incorporated are presently infringing pending claims of application serial no. 07/645,151 through the actual manufacture and/or sale of product. Augat's infringement of the pending claims was discovered in about April, 1992. Berg's infringement of the pending claims was discovered in about January 1993.

3. A rigid comparison of the Augat and Berg devices with the pending claims of application serial no. 07/645,151 has been made, and it is my present belief that some of the pending claims are unquestionable infringed.

4. A thorough search of the prior art has been conducted, and I have a good knowledge of the pertinent prior art. Based on this knowledge, I believe all of the claims in application serial no. 07/645,151 are allowable.

The Petition, however, was dismissed by the Patent Office, without prejudice, because it was unsigned and did not include the required fee. (RBX-118 at 60-63; CX-2 at AW0000272-275).

191. The Examiner in an Office Action mailed on May 12, 1994 allowed claims 20-31, 48-52, 55-57, 62-64, 66-70 and 72-77. Claims 32-42, 44-47, 58-61, 78 and 79 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner stated:

In claim 32, line 6 "a resilient arm" constitutes a double inclusion of means because "a resilient arm" is claimed in parent claim 28.

The following terms do not have proper antecedent basis:

"at least one wall" is claim 34, line 19.

"the latching section" in claim 58, line 25.

(CX-2 at AW0000281).

192. In an amendment dated May 27, 1994, claims 32, 34, and 58 were amended as follows:

In claim 32, line 6, after "causing" delete "a" and replace with --the--.

In claim 34, lines 19-20, delete "at least one wall of".

In claim 58, line 25, delete "latching" and replace with --latch receiving--.

Claim 34 as twice amended corresponds to claim 17 in issue. The remarks section of the amendment stated that claim 34 has been amended to overcome the 35 U.S.C. § 112, second paragraph rejection raised by the Examiner. (CX-2 at AW0000282-2837).

193. On June 14, 1994, a Notice of Allowance was mailed by the Patent Office for the claims of the application in U.S. Serial No. 026,280, and twice amended claim 34 of that application issued as claim 17 of U.S. Patent No. 5,383,792 on January 24, 1995. (RBX-118 at 72; RBX-117).

194. By letter dated August 22, 1995, to the administrative law judge complainants enclosed a certificate of correction of the '792 patent as well as a certified copy of the actual Letter of Correction from the Patent Office records. (ALJ Ex. 10).

5. 35 U.S.C. § 102(f)

195.

(JX-29 at 56-60).

196. [THERE IS NO FINDING NO. 196]

197.

(JX-29 at 32-33, 35, 41; RBX-170;

RBX-169).

198.

(RBX-169 at 20).

199. [THERE IS NO FINDING NO. 199]

200.

201.

(JX-29 at 102).

202.

(JX-29 at 30-31, 94-95; RBX-170).

203.

(JX-29 at 38-39, 80, 93-94, 118-119).

204.

(JX-29 at 28, 30-31, 91).

205.

(JX-39, 64-65; JX-29 at 74).

206.

(JX-39, 64, 85).

207. In a study Strich performed in
were of the rotate and latch configuration. (Strich, Tr. at 2977).

208. Dr Williamson, presented by AMP as "one of the world's leading
authorities on electrical connectors," (CFE 64), did not know if any
other than the rotate and latch type, were being sold by anyone
in Thus Williamson testified:

(Williamson, Tr. at 2101).

209. One of ordinary skill would translate the statement of the

(Strich, Tr. at 2979).

210. Claim 17 recites that the daughter card being rotatable relative to the motherboard between the first and the second position,

(Strich, Tr. at 2987).

211. Claim 17 recites a housing with a card receiving slot dimensioned to receive the daughter card therein and the connector having contact terminals.

(Strich, Tr. at 2988).

212. Claim 17 recites a latch receiving section provided near an end of the housing adjacent the card receiving slot of the housing, which is

(Strich, Tr. at 2988-89).

213. Claim 17 recites a separate resilient latch,

(Strich, Tr. at 2989).

214. A spring steel part must be separate from a molded part, and is resilient,

(Strich, Tr. at 2989).

215. Claim 17 recites a latching portion which extends from the latch receiving section toward the card receiving slot,

(Strich, Tr. at 2989).

216. Claim 17 recites a latch positioned in the latch receiving section such that the latch receiving section cooperates with the latch to limit movement of electrical portion in the direction transverse to the length of the card receiving slot.

(Strich, Tr. at 2989-90).

217. None of the inventors could recall

of the invention of the '765 and '792 patents earlier than

(JX-42 at 38; JX-35 at 35; JX-34 at 18-19).

218. were not deposited prior to this TEO hearing. (Tr. at 4939-49, 5026-27).

219. There is no evidence in the record that suppliers of straight in SIMM connectors were using plastic latches or clips.

(Tr. at 4911-12).

220. has a background in electrical engineering and worked at for twenty-five years beginning in June 1968. Beginning in 1980, began to work at and in approximately 1989 began to work in SIMM connector

(JX-36 at 8-12, 14).

221. [THERE IS NO FINDING NO. 221]

222.

(JX-36 at 21).

223. was known to and was an engineer that worked at in the connector group. (JX-39 at 42).

224. an engineer at assisted the electrical connector group in During that time frame,

had weekly conversations and periodic in person meetings with

(JX-

29 at 12-15).

225.

(JX-

36 at 20).

226.

(JX-29 at 87).

227.

(JX-29 at 15-18).

228.

(JX-36 at 28).

229.

(JX-39 at 16, 19-20; See also JX-36 at 23-24).

230.

(JX-29 at 17).

231. As early as

AMP was aware that was

An

referencing

reported:

(CX-054 at 3).

232.

(JX-29 at 19).

233.

(JX-29 at 21-22).

234.

(JX-39 at 23, 26; JX-39 at 32).

235.

(JX-39 at 29).

236.

(JX-29

at 26-27; RBX-124).

237.

(RBX-124).

238.

(JX-29 at 54-55).

239.

(RBX-124).

240.

(JX-36 at 30-33).

241:

(CX-060) .

242 .

(RBX-415; JX-32 at 107) .

243. [THERE IS NO FINDING NO. 243]

244. [THERE IS NO FINDING NO. 244]

245. [THERE IS NO FINDING NO. 245]

246.

(JX-32 at 110; RBX-416).

247.

(RBX-427 at 49-50).

248.

(RBX-143 at 2).

249.

(CX-056).

250.

(RBX-144 at 2; RBX-418 at 2).

251.

(RBX-417) .

252.

(RBX-144) .

253.

(RBX-419 at 1) .

254.

(RBX-411 at AMP 0250174, 177, 178) .

255.

(RBX-411 at AMP 0250183).

256.

(RBX-420 at 1-2).

257.

(RBX-422 at 2; RBX-426 at 73).

258.

(JX-32 at 129; RBX-419 at 3; RBX-424 at 1).

259.

(RBX-419 at 3).

260.

(RBX-424; RBX-419).

261.

(RBX-426 at 36-37).

262.

(JX-32 at 105-06; RBX-415 at 1).

263. The MicroEdge SIMM connector was part of the AMP micro-electronics, packaging division. (JX-32 at 106).

264.

(JX-32 at 111).

265.

(JX-35 at 93-94).

266.

(JX-35 at 94).

267.

(JX-35 at 94).

268.

development relating to SIMM connectors in 1988. (JX-35 at 94-95).

269.

around the time of the filing of the patent application that ultimately issued as the '792 patent (filed on February 21, 1989) of anyone at working on a metal latch for a SIMM connector. (JX-35 at 104-05).

270. had no knowledge of the metal latch SIMM connector with prior to February 21, 1989. (JX-35 at 105).

271.

(JX-42 at 17).

6. Estoppel

272. Prior to the issuance of the '792 patent Berg never knew about the '792 patent or the patent application from which it matured. The only contact between AMP and Berg after the '792 patent issued has been in connection with AMP's infringement suit against Berg and the present investigation. (Brigman, Tr. at 382; Anderson, Tr. at 2750-51; JX-12 at 83-84 and 87-91).

273. On January 24, 1995, the day the '792 patent issued AMP sued Berg for patent infringement. (CX-237T; CX-1).

274. Berg's predecessor, DuPont, began making metal latch SIMM sockets sometime in the second or third quarter of 1990. (Wang, Tr. at 1860 and 2613; FF 130 BRF93).

275. DuPont, was formally going to launch its original metal latch SIMM connectors in the United States on February 1, 1991. (Anderson, Tr. at 2612, 2613).

276. Berg introduced a metal latch connector in 1991. Berg became aware however of an AMP patent and "literally introduced the connector like on Friday and withdrew it on Monday once we found out about the AMP Patent." (Anderson, JX-2 at 77, 78).

277.

(Anderson, Tr. at 2612).

278. In relation to the metal latch SIMM connectors, DuPont was preparing the make the market introduction in February 1991 and in January 1991 information was received from reliable sources within the industry that there could potentially be a problem related to the connector due to a patent from AMP. DuPont then issued a patent alert to see if a recent patent had issued or to check any latest update on patents. Hence DuPont "delayed" introduction of the connector. (Brigman, Tr. at 293-294).

279.

(CRX-45).

280.

(CRX-46).

281. On April 23, 1991, Norris Tolson and Barry Brigman (DuPont) met with _____ Brigman testified as to the meeting:

A We came to Harrisburg and met with him at his office, headquarters, and we talked about the general industry, and then we talked about the patent issue on SIMM from a standpoint that we would like to resolve that, and _____ . And we talked a little bit about the Bergstik patent issues and briefly and just in a very high overview the status of _____ , that type of thing.

And the primary discussions towards the end was how could we resolve this latest issue,

[JX-4 at 17].

It was thereafter determined that James Anderson of DuPont and

would have a further meeting to attempt to resolve differences between the parties. (JX-33 at 30).

282.

283. Exhibit CRX-26 is a letter from DuPont's counsel, Patricia Scott, dated April 21, 1991,

In this letter, Ms. Scott makes reference to a meeting between DuPont's Norris Tolson

It was Ms. Scott's understanding that

She also stated that DuPont's U.S. Patent No. 4,847,588 was the subject of an infringement suit brought by DuPont against Molex in November 1989 and that DuPont has requested the U.S. PTO to reexamine the patent involved in the Molex litigation. (CRX-26; RBX-225).

284. In May 1991, DuPont's goals and its basic strategy was to try to trade DuPont's Bergstick retentive leg patent for the SIMM pack, to get a cross licensing agreement. (Brigman, Tr. at 312, 313).

285. In May 1991, James Anderson (DuPont) and Anderson pressed

(JX-2 at 82; JX-33 at 31; BRF96, JX-33 at 3).

286. When Anderson got back to the United States from his there were many phone calls and

Anderson during that time was discussing the matter with "Barry Estrin every day" and with his boss Barry Brigman. (Anderson, Tr. at 2644, 2645).

287.

(RBX-182).

288. Exhibit CX-62 is a letter from Ms. Scott to

In the letter Ms. Scott

"in any event, DuPont's silence on the alternative designs proposed in your letter should not be construed as an agreement in any form with the opinion you have rendered on the lack of a need for a license." (CX-62).

289.

(CRX-1).

290.

(CRX-49).

291.

(Brigman, Tr. at 353;

JX-2 at 83; JX-23 at 33; JX-33 at 43).

292.

(Anderson Tr. at 2660, 2661).

293. According to Anderson DuPont presented AMP with certain sketches of a redesigned DuPont SIMM connector but

Anderson described the DuPont Designs as "only sketches" and "real preliminary." (Anderson, Tr. at 2656, 2657).

294.

(JX-33 at 45).

295.

(JX-46 at 83-94).

296.

(Anderson, Tr. at 2661).

297. According to Scott, the subject of the DuPont SIMM connector came up in two contexts One was Berg's contact patent and the other was that

Also,

(Scott, JX-23 at 36-37).

298.

(Gurski, JX-33 at 67, 69).

299. In August of 1991, Berg's predecessor, DuPont, formed a team called the SIMM A Team to redesign DuPont's metal latch SIMM socket. (JX-18, pp. 79-80 and RBX-315).

300. The SIMM A Team was called the A Team because it was meant to be the best, or Number 1. (Wang, Tr. at 1919; JX-18, p. 80).

301. Wang was the leader of the SIMM A Team. (JX-18 at 85 and RBX-315).

302. The first kickoff meeting of the SIMM A Team occurred in Taiwan on August 26, 1991. (JX-18 at 89-90).

303. D.K. Wang is in charge of a part of Berg's operations in Taiwan and generally speaking is in charge of the engineering and the quality function only (Wang, JX-18 at 12). Wang testified that "at some point of time we came to know that AMP has the metal latch SIMM socket. I cannot recall the time." (Id. at 95).

304.

305. Berg's predecessor, DuPont, started production of its redesigned metal latch after the second quarter or early third quarter of 1992. (Wang, Tr. at 1890-91).

306. As to any products in production, Berg has so called ongoing improvements and ongoing cost reduction efforts so it is nothing unusual that Berg keeps on modifying any product which is in production. That's a job that every engineer should do. CPX-015 is a very early version of CPX-017 is an improved version. (Wang, JX-18 at 137, 145).

307. The area highlighted in yellow on RBPX-93 (the protruding tab) was added to Berg's metal latch SIMM connectors in 1993. (Wang, Tr. at 1908-09).

308. In 1993, Berg changed its vertical metal latch SIMM connector so that it included a very slight taper on the bottom portion of the area of the housing that is attached to the metal latch. Even for the original there was a very slight taper. The taper helped the mod release during the molding

process. The taper added in 1993 is shown in RBX-302 at 5282. (Wang, Tr. at 1910-11, 1945-46).

309. Berg's current vertical metal latch SIMM connector housing has a taper on the housing in the area to which the latch is attached. (Wang, Tr. at 1944-45).

310. The taper that was added to the housing of the Berg vertical metal latch SIMM connector sometime in 1993 was added to help the mold release during the mold process and to assure a better assembly between the metal latch and the housing. (Wang, Tr. at 1911; JX-18 at 141-42, 146).

311. Berg or its predecessor, DuPont, changed the vertical metal latch SIMM connector product so that the sidewalls where the latch is mounted were changed from being straight to tapered so that there would be no gap between the plastic and the latch. (JX-18 at 138-139).

312. The change made by DuPont, to the vertical metal latch SIMM connector in which the sidewalls where the latch was mounted were changed from straight to tapered was made to insure that the latch would be well-mounted to the housing and to minimize the gap between the latch and the housing, therefore achieving a more reliable and more secure assembly. (JX-18 at 141-42).

313. The taper that was added to the housing of the Berg vertical metal latch SIMM connectors sometime in 1993 required the use of a secondary assembly process for the latch. (Wang, Tr. at 1911; JX-18 at 138-39, 144).

314. RBPX-91 does not show DuPont's, original design for its vertical metal latch SIMM connector. A 99 percent is identical to the first release design except for the bottom portion where the "taper of the housing was added later." (Wang, Tr. at 1946-47).

315. RBX-310, contains the minutes from the first meeting of the SIMM A Team (the team that was to redesign DuPont's metal latch SIMM connector). Pages 12 or 13 is missing. Also Wang does not know if the first four pages are missing. (Wang, Tr. at 1922 and 1930-31).

316.

(Wang, Tr. at 1925-26 and 1928).

317. The drawing for the redesigned metal latch SIMM connector of DuPont was released sometime before July 10, 1992. (Wang, Tr. at 1932-33 and RBX-291).

318. At Du Pont, the date a drawing was released meant that the engineering people thought that the product had become manufacturable. (Wang, Tr. at 1933-34; JX-18 at 155-58).

319.

320.

(CRX-50).

321.

51).

322.

(RBX-236; CRX-

(CX-63).

323.

324. Ms. Scott thought

(JX-23 at 57-58).

325. Scott testified (JX-24 at 52, 53) as to DuPont's practice to tell potential infringers about pending patent applications:

- Q. So Du Pont has a practice of advising potential infringers of pending patent applications; is that true?
- A. No.
- Q. As a matter of fact, Du Pont ordinarily does not tell potential infringers about pending patent applications; isn't that right?
- A. I think it depends on the circumstances.
- Q. Are you aware of any instances where Du Pont has advised a potential infringer of a pending patent application?
- A. In the issue with the retentive leg,
- Q. A reexamination application is not a pending patent application, is it?
- A. The product of reexamination process is a reexamined patent.
- Q. Other than that reexamination proceeding, have you ever advised a potential infringer that you are aware of that they might infringe a pending Du Pont patent application when and if it issues?
- A. Well, we have granted licenses where we've had, for example, a foreign patent that issued and we had a pending United States patent with the understanding that if the patent issued, royalties would be due.
- Q. Are there any other situations you can think of?
- A. Nothing specific comes to mind.

326.

327.

Anderson's
at 363).

does not request a reply. (Brigman, Tr.

328.

(Anderson, Tr. at 2671).

329.

(CRX-4).

330.

331.

332. By at least April 1992, DuPont was accumulating a liability

fund for use in any infringement suit that AMP may bring against DuPont when the redesigned connector was introduced in the U.S. market. (CRX-3, Brigman, Tr. at 348, 349).

333. Prior to August 4, 1992, Berg made a decision to redesign its metal latch SIMM connector. (Brigman, Tr. at 364).

334.

335.

336. By at least May 1992, Du Pont believed that it had designed around the claims of the '765 patent and during May 1992 had showed the product to customers. (Anderson, Tr. at 2702 to 2704).

337.

338.

339. Exhibit CRX-53 is a letter from Ms. Scott

Ms. Scott confirms that DuPont has been redesigning its SIMM sockets so as to avoid a conflict with AMP. Ms. Scott also states that production samples of the new metal latch SIMM are expected shortly. (CRX-53).

340.

341.

342.

343.

(Anderson, Tr. at 2707).

344.

(JX-4 at 30 to 32).

345.

(Wang, Tr.

at 1935-37 and CRX-5; JX-18 at 115-16, 118-19; RBX-395; CRX-5).

346.

(RBX-396

and CRX-10; Wang, Tr. at 1937-38; JX-18 at 116, 119-120).

347. Hittori worked for DuPont-Japan in the 1992 time frame and was responsible for coordinating the patent activities in Japan. (JX-18, pp. 116-117).

348. On July 7, 1992, Ms. Scott stating
"we are very close to marketing our redesigned version [of the metal latch SIMM connector] but have not yet done so." (CRX-55).

349. Brigman testified on DuPont's approval of a new product:

MS. TANGUAY: I'd like to have placed in front of the witness
CRX-27 (DuPont's Estrin 7/10/92 letter to Lee).

Q Are you aware of this document, sir?

A Yes, I am.

Q And isn't it a fact that your counsel, Ms. Scott and Mr. Estrin, had approved a letter to be sent to customers in July of 1992 regarding the Berg redesign?

THE WITNESS: It's my understanding that this letter was approved
by legal, to send to customers in Taiwan.

Q And this -- the date of this letter, of course, is July 10th, 1992, and that's prior to the date that Berg sent redesign metal latch Simm connector samples to AMP, correct?

A That's correct.

Q And isn't it also a fact that Ms. Scott and Mr. Estrin indicate that Mr. Lee, who this letter is addressed to, should feel free to send this letter to its customers; is that correct?

A To its customers in Taiwan.

JUDGE LUCKERN: So that's correct.

THE WITNESS: Yes, that's correct.

JUDGE LUCKERN: All right.

THE WITNESS: There is no -- it has nothing to do with customers in the U.S. market place.

(Brigman, Tr. at 370-371).

350. Exhibit RBX-246 is a letter dated July 10, 1992 from Scott and Estrin to Lee of DuPont Taiwan enclosing a draft copy of a letter for DuPont's SIMM customers in Taiwan. According to Scott and Estrin, the letter "introduces the new metal latch product, expresses our confidence that it does not infringe, including indemnification against liability for infringement, and clarifies the patent issue raised by AMP." (RBX-246).

351. According to Patricia Scott, patent counsel for DuPont, there are no instances where DuPont has proceeded to sell a product in the face of a charge of infringement without obtaining an opinion of counsel. (JX-23 at 93).

352.

(RBX-397 and CRX-6; Brigman, Tr. at 365-66; JX-23 at 74).

353.

(CX-333, Stipulations, ¶10).

354.

355. The August 4, 1992, Anderson letter does not "specifically ask for a response." (Brigman, Tr. at 364).

356. On August 4, 1992, Patricia Scott of DuPont sent a letter to
In
the August 4, 1992 letter, Ms. Scott forwarded a sample of DuPont's redesign metal latch SIMM to AMP. The metal latch design forwarded by Ms. Scott was the design that DuPont intended to use in all metal latch SIMM products made and sold by DuPont worldwide. (CX-147).

357. Ms. Scott after her August 4, 1992 letter never had any discussions about any understanding that AMP was not going to assert the '765 patent against DuPont. (JX-23 at 55).

358. James Anderson hoped that AMP would respond to the August 4th submission, however, he did not believe AMP would respond one way or the other. (Anderson, Tr. at 2747).

359. All of the letters and discussions between Berg and AMP during the 1991-1994 time frame had to do with the '765 patent. (Anderson, Tr. at 2749-50).

360. DuPont began accepting orders on its metal latch SIMM connector before Thanksgiving 1992. (Anderson, Tr. at 2713).

361. Before March 1993 Anderson had discussions with people about an estoppel defense. At that time Barry Estrin was gathering facts as to the viability of an estoppel defense because it was "just good business."
(Anderson, Tr. at 2714, 2715).

362. Scott knows through her contact with the business people at the time that the connector identical to the one enclosed with her letter of

August 4, 1992 to AMP was sold by DuPont. (JX-23 at 59, 60).

363. Scott testified at to the contact of AMP and DuPont (JX-23 at 54, 55):

Q Ms. Scott, did you reach an understanding in you own mind based on the absence of a reply to your letter marked as Scott Exhibit No. 24 that AMP was not going to assert patents with respect to DuPont's redesign metal latch SIMM?

A In the latter part of 1992, AMP asserted its contact patent against DuPont's product in Taiwan.

Q Did you form an impression in your mind that AMP was not intending to assert its 765 patent against DuPont?

A Well, considering that AMP tends to act pretty quickly when it thinks that somebody is infringing. You could say I had the impression they did not enforce -- that they did not sue us was an indication that they didn't think our redesign infringed.

Q When did you reach that conclusion?

A I would say probably sometime in -- I can't say. I can just say as more time went by the more I became convinced.

Q Did you ever tell anybody that you were convinced that AMP wasn't going to assert the 765 patent against DuPont?

A No.

Q Did anybody ever tell you that they had also formed this impression?

A No, I can't say.

Q So you never had any discussions at all about any understanding that AMP wasn't going to assert the 765 patent against DuPont; is that correct?

A After the August 4th letter?

Q Yes.

A Yes, I would say that's true.

Q And did you ever create any document in which you wrote down this understanding that you believed that AMP was not intending to enforce its 765 patent against DuPont?

A No.

364. When Anderson was asked whether "it's a fact, isn't it, that AMP never gave you any approval of any redesign," he answered that "[t]hey never gave us an approval." (JX-3 at 19, 20). He also testified that he did not direct any of his people to indicate to customers that AMP had implied to Berg that there wasn't a problem with patents with respect to metal latch connectors. Although he agreed that he would have loved to have done that if he in fact (JX-3 at 57, 58). According to Brigman, AMP never gave "us" a formal reply that "we" were infringing any of their redesigns and to his knowledge AMP never sent "us" anything nor said to anyone verbally that "we" did not infringe "that patent." (Brigman, JX-4 at 46, 47).

365.

(JX-3 at 27).

366. In 1992, DuPont was aware that AMP was involved in a lawsuit with Augat concerning AMP's '765 patent directed to metal-latch SIMM connectors. (Brigman, Tr. at 380-81; RBX-328; CRX-3).

367. Berg was aware of AMP's lawsuit against Foxconn regarding metal latch SIMM connectors. (JX-4 at 64-65).

368. DuPont followed patent lawsuits initiated by AMP concerning the '765 patent, including the Augat lawsuit. DuPont even obtained a deposition transcript of Dr. Williamson from the Augat lawsuit to gain an understanding

of how he was interpreting the '765 claims. (JX-23 at 72-73).

369. Thomas McGhee, Berg's general counsel and secretary (JX-13 at 4) testified as to possible legal action involving Berg (JX-13 at 40 to 42):

THE WITNESS:

Shortly after acquisition of the Berg assets, knowing litigious nature of AMP and Molex, we felt that we would be sued by both to determine whether they had the final wherewithal to withstand the lawsuit. And we felt that as soon as the Augat suit was over that we would be sued by them and it had to do with budgetary discussions.

BY MR. FILARSKI:

Q And you specifically felt that you would be sued by AMP for infringement, for patent infringement?

A Yes, sir.

Q What suit, kind of suit were you concerned with then?

A We were -- "concerned" is not the proper word. We felt it would happen. And we were deciding whether we should put aside in our budget funds to defend such a suit.

Q And you said a suit would happen for what conduct?

A Patent infringement.

Q Patent infringement by what conduct of Berg?

A We didn't know, but we felt that both AMP and Molex would test us.

Q Is there any particular Berg product that you had in mind when you felt that?

A Not really.

Q Just any Berg product that you may get sued by AMP?

THE WITNESS:

Well, there's a possibility that the SIMM would be involved. We had already had a suit on Taiwan.

Q And by SIMM you mean Berg metal latch SIMM connector products?

A Yes, sir.

370. Exhibit RBX-403 is an electronic mail from Ms. Scott to Archie Simmonds dated October 2, 1992, in which Ms. Scott provides a statement to give to Hewlett-Packard: "We are confident DuPont's metal latch SIMM socket does not conflict with any patent of AMP Inc. The design has been cleared by DuPont counsel and is backed by our standard patent indemnification."
(RBX-403).

371. In late 1992, Berg informed its employees that it would continue to maintain DuPont's legal policies after the divestiture of Berg from DuPont. Brigman's knowledge DuPont did not have a policy of advising potential infringers of pending patent applications. (Brigman, Tr. at 359-60 and 387).

372. The official date of sale of the connector division of DuPont to Berg was March 1, 1993. (Brigman, Tr. at 385).

373. After the purchase of the DuPont connector division in March 1993, Berg's customers continued to request indemnification letters regarding AMP's patents. (JX-12 at 32 and 132-33).

374. The resulting indemnification letters sent out by Berg to its customers were aimed at three patents identified in the letters. (JX-12 at 150-51).

375.

376.

(Brigman, Tr. at 374-375).

377. Berg salespeople asked that a statement related to AMP patents be provided to Berg customers. Consequently, Berg's attorneys approved advising customers in "Dear Customer" letters that Berg's redesigned metal latch did not conflict with any patent of AMP, including the '765 patent. (Brigman, Tr. at 374-75; RBX-403).

378. RBX-328 summarized facts provided by James Anderson to Thomas Lyons regarding the AMP-Berg metal latch conflict. Thomas Lyons did not have first-hand knowledge of the facts provided by James Anderson. (JX-12 at 55-57 and 81).

379.

(RBX-402).

380.

(JX-13 at 75-76).

381.

(RBX-364).

382.

(RBX-368).

383. Richard Page, Berg's patent counsel, started employment with Berg on July 19, 1993. (Tr. at 2395). When Page reviewed the Scott letter to forwarding samples of a redesigned metal latch SIMM he did not

understand that it requested a reply from AMP. (Tr. at 2398). On his review of the matter he also did not understand that there was any express written agreement or oral agreement between AMP and Berg that AMP would not bring a patent infringement action. (Tr. at 2410, 2411).

384.

(CRX-20).

385.

(RBX-381).

386.

(RBX-382).

387.

(CRX-061).

388.

(RBX-334).

389.

(RBX-336) .

390 .

(RBX-345) .

391. Exhibit RBX-344 is Page's response to the proposed letter in
RBX-345. (RBX-344) .

392 .

(RBX-346) .

393 .

(RBX-348) .

394 .

(RBX-350) .

395 .

(RBX-351) .

396 .

(CX-66; CRX-44).

397.

(JX-14 at pp. 146-147).

398. If AMP had approved Berg's metal latch SIMM product as not violating its patents, Ms. Wheeler of Berg in the course of her duties as product manager would have expected that she would have been informed of such information. (JX-19 at 44).

399. Ms. Wheeler does not have any knowledge as to whether AMP ever approved Berg's metal latch SIMM product as not violating its patents. (JX-19 at 44).

400. Ms. Wheeler does not recall anyone ever telling her that AMP had so approved Berg's metal latch SIMM product. (JX-19 at 44).

401. Prior to her deposition, Ms. Scott of DuPont met with Berg attorneys who discussed, with Ms. Scott, Berg's estoppel theory. (JX-23 at 51).

402.

403. It was Ms. Scott's understanding that the way AMP wanted to resolve the patent infringement dispute with DuPont was for DuPont to stop selling the devices that AMP thought infringed its patent. (JX-23 at 91).

404. Prior to joining Berg, Page had no knowledge of facts relating to AMP, Berg, DuPont or metal latch SIMM connector. (JX-14 at 7).

405. Page learned of Berg's estoppel position from Mr. Lyons after his arrival at Berg. (JX-14 at 27).

406. Page knows of no agreement by AMP, written or oral, not to sue Berg with respect to its metal latch SIMM connector product. (JX-14 at 48 and 53).

407. Page had no knowledge of the patent application which matured into the '792 patent before the patent issued in January 1995. (JX-14 at 95).

408. It is Page's understanding that in April of 1992, Anderson believed AMP would sue Berg if AMP defeated Augat in their pending litigation. (RBX-393; JX-14 at 112-113).

409. Page did not understand Ms. Scott's letter of August 4, 1992 to (RBX-218) as requesting a response. (JX-14 at 125).

410. Berg's predecessor, DuPont, first released the redesigned metal latch SIMM connector for production in the second or third quarter of 1992. (JX-18 at 112).

411. Berg began its design efforts toward making a 40° metal latch SIMM connector sometime between the second half and first half of 1993. (JX-18 at 151-152).

412. New Berg metal latch SIMM connector products were introduced to the marketplace without consulting AMP, and without submitting samples or drawings to AMP. (JX-14 at 191-94).

413. Starting about April 1993, Lyons got involved in looking into requests from Berg's metal latch SIMM connector customers who were concerned with patent issues raised by AMP. (JX-12 at 31-32).

414.

(JX-12 at 38).

415. The only document Lyons is aware of which summarizes events in 1991 and 1992 concerning DuPont and AMP is Anderson's June 16, 1993 chronology. (JX-12 at 56-57).

416. Thomas McGhee, Berg's general counsel and secretary, had no affiliation with DuPont prior to March 1, 1993. (JX-13 at 4, 5).

417. McGhee first became aware of patent issues concerning Berg's metal latch SIMM connectors after March 1, 1993 through Lyons, when certain Berg customers requested a patent indemnification. (JX-13 at 7, 10-11).

418. After receipt of RBX-375 (May 16, 1993), whereby McGhee was alerted to the fact that AMP had accused several SIMM connector manufacturers of infringement of AMP's SIMM connector patent, McGhee took no action and is not aware of any action taken to follow up on the AMP infringement allegation reported by Brake. (JX-13 at 14-20; RBX-375).

419. No one ever told McGhee that AMP would not enforce its SIMM connector patents against Berg. (JX-13 at 34).

420. McGhee is not aware of any document in which AMP stated Berg's metal latch product does not infringe AMP's SIMM connector patents. (JX-13 at 34-35).

421. Berg never believed the patent indemnity agreements it offered to its metal latch SIMM connector customers extended to AMP's pending patent applications. (RBX-378; JX-13 at 44-45 and 65-66).

7. Persons of Ordinary Skill In the Art

422. Those having ordinary skill in the art as of 1988 generally had a degree in mechanical engineering or electrical engineering and some hands-on experience in the design of connectors, or if they did not have an engineering degree, they would have several years of hands-on experience in the design of connectors. (Strich, Tr. at 2871, 2879-80; Williamson, Tr. at 191, 193; Kirk, Tr. at 3229).

423. The properties of spring steel were well known and the properties of plastic were well known, and in many instances the steel would be less likely to break. Thus Williamson testified:

Q. . . . In 1987, isn't it a fact that the man of ordinary skill in the art as you've described him was well aware that spring steel would be stronger and less likely to break than plastic?

A. Taking your question purely in a vacuum, the properties of spring steel are well known and the properties of plastic were well known. And in many instances the steel would be less likely to break. . .

* * *

Q. . . . Whether or not he was interested and whether he could use it, though, he would know, wouldn't he, that spring steel would be less likely to break than plastic?

A. That would be common knowledge.

(Williamson, Tr. at 528-529).

424. In 1987, one of ordinary skill was aware that spring steel was sufficiently hard so that it would be less likely to be shaved by a daughter

card or any other member of comparable hardness than a plastic member.

(Williamson, Tr. at 529).

425. Metal is resilient and does not readily take a permanent deformation. Thus Williamson testified:

Q: If one of ordinary skill in the art had in his possession a member of -- a plastic and a member of spring steel and the dimensions of these two members -- they were elongated members, but the dimensions of these two members were identical. Would it be obvious to him and wouldn't he know -- not only obvious, but wouldn't he know that spring steel would have a better memory less likely to take a set?

A: Yes. Within the bounds of the question as you've asked it, the question is yes.

(Williamson, Tr. at 552-553).

426. (JX-48 at 5).

427. was one of ordinary skill in the art at the time of the invention of the 765 patent and the 792 patent. (JX-48; Williamson, Tr. at 3985).

428. was one of ordinary skill in the art related to the invention of the 765 patent and the 792 patent. (JX-25).

429. BERG's engineer, D.K. Wang, has a Bachelor of Science degree in Mechanical Engineering. (Wang, Tr. at 1828).

430. D.K. Wang is an employee of BERG's Du Pont facility in Taiwan. Wang is Engineering and Quality Manager responsible for product and process design, tool design, inspections laboratory testing at BERG Du Pont's facility. (Wang, Tr. at 1828-29).

431. By 1988, had obtained a Masters degree and had a little more than one year of connector experience at and was one of

ordinary skill in the art at the time of the invention. (Strich, Tr. at 2974-75).

8. Scope and Content of the Prior Art

Thrush Diplomate and Kodak Diplomate

432. A customer drawing at AMP is a drawing done by engineering to give to a customer, it is in a format that AMP could show to and give to a customer, and it discloses the external mounting dimensions and general features of a product. However, a customer drawing may also be prepared to review with Marketing, Sales or management.

(JX-25 at 27-28; RBX-427 at 33; JX-48 at 19, 61).

433. A show-and-tell model is typically generated from a model shop and is a model that AMP prepares for customers to give the customer an indication of what AMP plans to do. In some cases, show-and-tell models are functional.

(JX-48 at 61-62).

434. If an AMP salesperson were given a model shop sample, in certain cases it could be for him to review that part with the customer. (JX-25 at 22).

435.

(JX-48 at 62).

436. A testable sample at AMP is a part that AMP provides that is dimensionally correct and that AMP believes will pass a particular customer specification. (JX-48 at 62).

437. An AMP product bulletin is a note or bulletin that AMP circulates to sales people. (RBX-427 at 43-44).

438.

(JX-48 at 12, 14; RBX-153).

439.

(JX-48 at 14; RBX-153).

440.

(RBX-162 at 1-9; RBX-153).

441. AMP's DIPLOMATE SIMM connector was of the direct insert type.
(JX-48 at 16-17).

442.

(JX-48 at 11-
12, 16-17; RBX-153).

443.

(JX-48 at 12-13; RBX-153).

444.

was project manager

for the Components and Assemblies Division of AMP. (JX-25 at 8).

445.

which was AMP's

DIPLOMATE SIMM connector project. (JX-25 at 9; JX-48 at 21-22; RBX-153; RBX-162 at 1).

446.

(RBX-427 at 25; JX-25 at 35).

447.

(RBX-427 at 25).

448.

(JX-48 at 19-20).

449.

(JX-48 at 19).

450.

(JX-48 at 55-56; JX-25 at 16-17; RBX-127; RBX-132).

451.

(JX-48 at 22).

452.

(JX-48 at 23-24; RBX-132).

453.

(RBX-132).

454.

(JX-25 at 17; RBX-127).

455.

(JX-25 at

17-18; RBX-127; Strich, Tr. at 2935-36).

456.

(RBX-127).

457.

(JX-25 at 25; RBX-159).

458.

(JX-25 at 30).

459.

(RBX-165 at

1, 17).

460.

(RBX-127; RBX-132; Williamson, Tr. at 650).

461. In the 1985 to 1986 time frame, Wang Laboratories was planning to purchase AMP's SIMM connectors. (JX-25 at 32).

462.

(CX-02 at AW265).

463.

(RBX-154).

464.

(JX-48 at 33; RBX-155).

465.

(JX-48

at 38).

466.

(JX-48 at 43-44).

467.

(RBX-155).

468.

(RBX-155 at 2).

469. In 1985, one definition of the word "retention" was to describe the capability of holding the SIMM card in place within the SIMM connector. The word "latch" was also used to describe the capability of holding the SIMM card in place within the SIMM connector. The term latching was used to mean providing stability to the SIMM card within the connector housing, in addition to providing retention "somewhat." (JX-48 at 35-36).

470.

(RBX-156 at 9; RBX-427 at 6, 9, 16).

471.

(RBX-427 at 18).

472.

(RBX-427 at 16; RBX-156 at 1).

473.

(RBX-156 at 9).

474.

(RBX-156 at 1; JX-48 at 37)..

475.

(CX-02 at AW255)..

476.

(RBX-131; RBX-133; RBX-162; RBX-164).

477.

478.

(JX-25 at 77).

479.

(RBX-165 at 1, 17).

480.

(JX-25 at 43).

481.

(RBX-152 at 52-53, 60-61).

482.

(CX-2 at AW258; JX-25 at 15, 18).

482(a).

(RBX-162).

483.

(CX-2, AW258; RBX-

152 at 40-45, AMP0251946).

484.

(CX-2, AW258, 262-263;

RBX-152 at 40-45, AMP0251946; JX-48 at 120-22; RBX-131; RBX-133).

485.

(RBX-158).

486.

(RBX-160; JX-48 at 71-73).

487.

(RBX-152 at 70).

488.

(RBX-427 at 32).

489.

(RBX-161 at 2; JX-25 at

50; RBX-152 at 227-228).

490.

(RBX-161 at 1, 3; JX-48 at 77-78).

491.

(RBX-152 at 37-39; AMP0251936).

492. In May of 1993, during the prosecution of the '792 patent, AMP's attorney represented to the examiner, inter alia that the SIMM prototype was never sold or offered for sale. (See FF 183).

492(a).

(RBX-152, 92-93, AMP0251151).

493. This representation recited in FF 492 was based on the Declaration of Roger Thrush, which stated that while AMP made certain experimental prototypes of connectors using a module clip, testing of the prototypes showed that the module clip idea was not worth pursuing and while a quotation dated October 17, 1985 was submitted by AMP to IBM for two different models of SIMM connectors, this quotation was printed approximately six months before Thrush conceived certain module clips. (See FF 187).

493(a).

493 (b) .

Prior Art SIMM Connectors With Integral Plastic Latches

494. U.S. Patent Nos. 4,737,120 and 4,713,013 issued to Grabbe and Regnier respectively. (RBX-406 and RBX-407).

495. The Grabbe patent, Figure 1, teaches:

... a low insertion force electrical connector 2 according to the present invention. Connector 2 electrically and mechanically connects two circuit panels together as needed.

Connector is comprised of an elongated housing having a plurality of contact receiving cavities 6 located in an elongated base 8. Housing 4 is made from any material having the required dielectric characteristics.

Proximate ends 10 of base 8 are latch members 12 which project from a top surface 14 of base 8. each latch member 12 is essentially parallel to ends 10 of base 8 and has a latching projection 16 positioned proximate the top of latch member 12. Latching projections 16 of latch members 12 face each other and cooperate with a daughter printed circuit board 18, as will be discussed.

(RBX-406, col. 3, lines 4-18).

496. The Grabbe patent also teaches:

As the fully turned position is approached, daughter board 18 engages latching projections 16. This causes the tops of latch members 12 to be forced toward ends 10 of base 8, allowing board 18 to continue its turning motion. When board 18 is essentially perpendicular to mother board 34, board 18 disengages projections 16, allowing latch members 12 to snap back in place. Board 18 is now secured in perpendicular position between latching projections 16 and stop

members 20.

(RBX-406, col. 6, lines 55-63).

497. The Regnier patent, Figure 1, teaches:

Connector housing 40 further includes a pair of upstanding resilient or yieldable latch posts 64 and 66 disposed at the opposed ends of cavity 42 adjacent mounting posts 34 and 36, respectively. Each latch post 64 and 66 includes an integrally formed resilient or yieldable latch projection 68 and 70 formed at the upper ends thereof, respectively, for yieldably retaining edge card 18 in mated relationship to connector 14.

* * *

Connector 14 is designed to provide zero or low insertion force mating between terminals 48 and contact pads 30 on edge card 18.

(RBX-407, col. 7, lines 65-68, col. 8, lines 1-4, 36-38).

498. The Grabbe and Regnier patents teach all of the preamble limitations of claim 17 that appear before the phrase "the electrical connector comprising." Thus Williamson testified:

First of all, Dr. Williamson, I draw your attention to the orange color on Claim 17 which highlights the words daughter card.

A. Yes, sir.

Q. And could you tell me if the orange

A. Yes, sir.

Q. And could you tell me if the orange item that's been identified on Exhibit 95, figure 1, from the Grabbe patent, corresponds with the daughter card in the sense that those words are used in Claim 17?

A. Yes. It is a daughter card.

Q. All right. And then further with respect to the words, mother board, highlighted in Claim 17 in blue, a light blue, that is, can you -- can you find a corresponding light blue member over in Figure 1 of the Grabbe patent?

A. I believe that the partridge is colored in light blue and generally labeled 34 is a representation of part of a mother board.

Q. All right. And do you see the language that follows the highlighted daughter card and mother board language from Claim 17, specifically, the daughter card being rotatable relative to the mother board between a first and a second position.

Do you see that language?

A. Yes, I do.

Q. All right. And can you tell me if that language is descriptive of the daughter card and mother board that we see in orange and blue over in the Grabbe patent, fig 1?

A. The figure itself doesn't provide that information. But taking the figure in the context of the Grabbe patent, the patent is addressing a rotate and latch connector, and so I would say that that was a fair representation.

Q. All right, sir. Thank you.

Now moving on down into the claim of Claim 17 here, the language, "the electrical connector having a housing with a card receiving slot," do you see -- and that's highlighted in green.

Do you see that, sir?

A. Yes, I do.

Q. That is, the words, "card receiving slot," are highlighted in green.

A. Yes, I see them.

Q. Okay. Now do you find corresponding structure over in the Grabbe patent fig 1 which is also marked with green?

A. Yes, I do. It is marked in green.

Q. Okay. And that is a card receiving slot in an electrical connector housing. Is that correct?

A. I see that the test of the specification refers to it

as a "board receiving opening." But I would have no difficulty in calling it a card receiving slot.

And it is, as you say, within the body of the housing.

Q. Thank you. And is that slot dimensioned to receive the daughter card therein?

A. Yes, it is.

Q. Okay. And moving on down to Claim 17 now, and the connector having contact terminals positioned adjacent to the card receiving slot, let's just stop right there.

You see the portion of Claim 17 highlighted in, what I will call pink, contact terminals?

A. Yes, I do.

Q. Okay. Is there a corresponding contact terminal shown over in fig 1 of the Grabbe patent?

A. Yes.

Q. And is it highlighted in pink?

A. It is exploded from the diagram and is labeled, 36, and is highlighted in pink.

Q. All right. And if it were not exploded, would it be positioned adjacent to the card receiving slot?

A. It would.

Q. And are those contact terminals shown in fig 1 of Grabbe, are they configured to make an electrical connection with the daughter card when the daughter card is in the second position in the card receiving slot?

A. Yes.

Q. And are those contact terminals shown in fig 1 of Grabbe, are they configured to make an electrical connection with the daughter card when the daughter card is in the second position in the card receiving slot?

A. Yes.

Q. All right. So would I be accurate to say, sir, in

everything we've read so far in Claim 17, down to the words, "the electrical connector comprising," could be found in the Grabbe patent?

A. That is correct.

(Williamson, Tr. at 500-503; Strich, Tr. at 2902, 2912-1913).

499. The Grabbe Patent No. 4,737,120, Regnier Patent No. 4,713,013, Cobaugh Patent No. 4,579,411, Thrush Patent No. 4,781,612, Martineck Patent No. 3,149,897 and Taplin Patent No. 3,803,533 were before the examiner in the prosecution of the '792 patent. (CX-1).

500. The Grabbe '120 patent and the Regnier '013 patent disclose the use of a plastic latch, not a metal latch, formed integral with the housing. (Williamson, Tr. at 251, 505, 510, 2109, 2113; RBX-406).

501. In a prior art plastic latch SIMM connector, such as CPX-13, the operating part of the latch has to be in a position that is engaged by the vertical edge of the card and thus must be adjacent the card receiving slot. (Williamson, Tr. at 465-466).

502. U.S. Patent No. 4,781,612 to Thrush, discloses:

The present invention relates to a socket which receives the edge of a chip carrier substrate, and more particularly to a socket for a single in-line memory module.

* * *

... A latch 230 is located along this shorter side of the guide slot 211 and is positioned with a recess 234 defined within the lateral sidewall of this support bracket. The resilient latch 230 is formed integrally with the dielectric housing and extends upwardly from the bottom of the housing and extends upwardly from the bottom of the housing toward the top. ...

* * *

When the module substrate 240 is fully inserted into the socket 206 with the edge contacts engaging terminals located in cavities 216, the boss 232 at the

upper end of latch 230 engages as edge on the substrate 240 to hold the module in a fully inserted position. ...

* * *

The advance of semiconductor technology has resulted in development of chip carriers which comprise substrates on which the chips are mounted and electrically connected by fine wire leads. The substrates are plugged into sockets having resilient contact members which make contact with surface traces on the substrate.

* * *

... When the module is fully inserted into the socket 206, the boss 232 engages the holes 246 to engage an edge of the hole. These holes 246 are located adjacent the upper edge of the module and the latch 230 is deflectable during insertion of the module but snaps into the hole upon full insertion. ...

* * *

As shown in FIGS. 9-12, the latching boss 232 is located on a resilient arm 230 which forms an integral part of the housing. This integral arm 230 is joined to the housing only along the base of the arm 230. (See FIGS. 10, 11, and 12.) Resilient arm 230 is deflectable from the undeflected position shown in FIG. 12 to permit insertion of substrate 240. As shown in FIG. 11, the resilient arm 230 returns to the undeflected position when the substrate 240 has been fully inserted and the latching boss 232 extends partially through hole 226.

(RBX-123, col. 1, lines 14-17, col. 6, lines 39-45, col. 7, lines 8-12, 14-20, 25-35).

503. U.S. Patent No. 4,781,612 to Thrush, expressly teaches:

The advance of semiconductor technology has resulted in development of chip carriers which comprise substrates on which the chips are mounted and electrically connected by fine wire leads. The substrates are plugged into sockets having resilient contact members which make contact with surface traces on the substrate.

(RBX-123, col. 1, lines 32-37).

Prior Art Metal Latch Connectors

504. RBX-126 is the Martineck patent, U.S. Patent No. 3,149,897 (the '897 patent), issued in September 1964 describes a printed cable connector. Specifically, the patent discloses an invention that:

* * *

This invention relates generally to electrical connectors.

More specifically, the invention relates to a connector for electrically connecting printed cable to printed cable or printed cable to printed board.

* * *

..., the plug element 140 is provided on the T-shaped body 142 with lugs 141 (as best seen in FIGURE 1), these lugs 141 being disposed one on each end of the ridge portions 143 for cooperation with a locking means 51 formed on the body of the connector 10, as more fully explained below.

* * *

On one side of the connector element 10 is provided a retainer clip 50 which is, as best seen in FIGURES 1 and 3, of a generally L-shaped configuration comprising a rectangular spring-like body 51 having a short leg 52 extending at right angles thereto for engagement with the flat facing portion 32 of the extension or mounting flange 14, the extreme end of the retainer clip 50 angling outwardly as at 53 to facilitate insertion of the plug member 142.

* * *

While the retainer clip 50 has been described with reference to only one side of the connector element 10, it is apparent that the other side, if desired, could be provided with the same retainer clip.

* * *

(RBX-126, col. 1, lines 15-19, col. 3, lines 9-145, col. 4, lines 33-41, 51-54).

505. The Martineck '897 patent discloses a plug which is the terminal of a flat wire or flat cable. It goes into a housing comprising electric contacts which make electrical contact to elements within the flat surface of the plug. Separate metal latches on both ends of the connector retain the male part and the female part of the connector. (Strich, Tr. at 2922; Williamson, Tr. at 602-603, 3851).

506. RBX-125 is the Taplin patent, U.S. Patent No. 3,803,533 (the '533 patent), issued April 9, 1974 that shows a card edge connector with latches on its ends. The patent further discloses:

The invention relates to devices for releasably connecting the edges of two electrical circuit boards together such that the relationship of the boards is resistant to accidental movement while the circuitry of the boards is maintained in electrical continuity.

* * *

... The connecting block 1 is secured to a printed circuit board 5, by a resilient clip 6 at each end of the connection block 1, ...

* * *

Each resilient clip 6 has an elongate main body portion 13 which has a centrally disposed slot 14, and a pair of clamping lugs 15, 16, ...

* * *

The end of the main body portion 13 beyond the slot 14 is formed firstly into a detent 21 directed towards and arranged to engage with the adjacent plug board 4 and secondly into a finger hold 22 by which the detent may be disengaged from the respective plug-board 4.

* * *

... The clip devices may be made of metal, for example steel or other material having comparable resilient property.

* * *

(RBX-125, col. 1, lines 5-9, col. 2, lines 1-3, 13-15, 26-30, col. 3, lines 9-11; Strich, Tr. 2924).

507. RBPX-45 is a copy of Figure 1 of the Taplin patent, (RBX-125; Strich, Tr. at 2925).

508. The Taplin '533 patent discloses a daughter card and separate resilient metal latches attached to the connector housing that hold the daughter card in place. (Williamson, Tr. at 606-08; Strich, Tr. at 2924-28).

509. The Nishikawa patent, U.S. Patent No. 4,420,207 (the '207 patent), issued December 13, 1983, and is directed to:

The present invention relates to a socket having means for n-load engaging with and releasing from an electronic unit, and more especially to a socket for an electronic unit having many lead wires and including a base plate having at least one row of vertical openings each receiving one of the lead wires which is engageable with a contact, a connector plate having at least one row of said contacts and means to allow relative movement between the base plate and the connector plate between contact engagement and release positions.

* * *

...present invention comprises a base plate 1 and a connector plate 2. An electronic unit, e.g. an IC package 3 is placed on the base plate 1. The base plate 1 has thereon a pair of package rests 4 which have a number of through holes 5 therein through which lead wires 6 of the IC package 3 pass when the package 3 is placed on the rests 4. ...

* * *

The base plate 1 has a pair of lock members 8 which are secured to the base plate 1 at longitudinal ends thereof and which project upwardly from the base plate 1. Each lock member 8 is elastically deformable in the longitudinal direction of the base plate and the upwardly projection portions constitutes a finder operating portion 9. The connector plate 2 has at both longitudinal ends a pair of engaging recesses 10 which receive the lock members 8. On each recess wall is mounted a retainer 11 which engages with a lock

member 8.

* * *

(RBX-130, col. 1, lines 8-18, col. 2, lines 47-53, 59-68; Strich, Tr. at 2962).

510. The Nishikawa '207 patent is a zero insertion force connector of the type which moves two parts of the housing in such a way that they grip the inserted fingers. Thus Williamson testified:

Q ... And I'll hand you RBX-130, Nishikawa, 4,420, 207.

* * *

A It is in fact a zero entry force connector of the type which moves two parts of the housing in such a way that they grip the inserted fingers.

The latch which Mr. Strich refers to is really just a locking device of the type that I shows [sic] Your Honor earlier, and all it does it hold two parts of the housing together.

There is no commonality between this invention or this patent disclosure and the invention we are talking about, except the trivial fact that they are both connectors mounted on a motherboard and they receive an inserted member. But everything else about them is totally different.

* * *

(Williamson, Tr. at 254).

511. The latch of the Nishikawa '207 patent is in a cavity or recess retaining the two parts together so that the contact force is maintained in the sense the latch is similar to the configuration of the latch in the '792 patent. Thus Strich testified:

THE WITNESS:

... 4-A shows the cross-section of the total connector socket in its open position, and you can see the device that would be inserted with its leads, the leads labeled No. 6 in Figure 4-B, and the device

label is No. 3.

Clearly, the contact is wide open and the leads go in with no frictional force, therefore, it is zero force insertion.

Figure 5-A and Figure 5-B show the unit in its closed position. And the way you close it, you simply push on the top, top insulator, push it down, and the latch then engages.

The contacts close around the leads of the device, the lead 6 on the device 3 are now electrically engaged and the latch is, is latched in position and you can see the purple section on the latch as, I think it is labeled No. 14.

So you have the latch in the cavity, in the recess, which is in blue, now retaining the two parts together so that the contact force is maintained. When the latches are open, the two, the contacts will force the two part, the two moldings apart and will open up.

The significant items about these latches in relation to the '792 patent, and the relation to prior testimony by Dr. Williamson, is that this is a Class 3 type of latch. He defined a Class 3 latch as one necessary to maintain contact, that if the latch were not present, or if the latch is open, then contact is lost, electrical contact is lost.

This, to that extent this latch serves the same function as a latch in the '792 patent which is a Class 3 latch. It is a metal latch, it is in a recess, and has a lot of similarity with the configuration of the latch in '792.

* * *

(Strich, Tr. at 2964-2965).

512. The Cobaugh patent, U.S. Patent No. 4,579,411 (the '411 patent), (RBX-318) issued April 1, 1986, and describes:

... card-latching systems on zero insertion force card edge connectors. More particularly, the latching system includes spring members having the lower ends thereof secured to the lower housing of the connector at each end of the card edge receiving slot and a concavo-convex intermediate section extending through a cam member attached to the vertically moving upper

housing to the upper ends of the spring members are cammed in and out of engagement with the card inserted in the connector.

(RBX-318).

513. The latch in the Cobaugh '411 patent is shown mounted in two recesses, one is a camming recess, which is labeled 74, and the bottom is attached to another recess. (Strich, Tr. at 2967).

514. THERE IS NO FINDING NO. 514.

515. The Sugimoto patent, U.S. Patent No. 4,129,351 (the '351 patent), is directed to:

A connector assembly for a printed circuit board having electrical contacts on at least one surface of its edge portion, comprising a housing structure having spaced parallel side wall portions at least one of which has electrical contact elements carried on the inner face thereof, and at least one elastic retaining member partly positioned within the housing structure and in engagement with at least one of the side wall portions of the housing structure for being in pressing engagement with the printed circuit board and thereby holding the circuit board in a predetermined fixed position having the contacts in close contact with the contact elements on the housing structure. (RBX-129).

516. [THERE IS NO FINDING NO. 516]

517. [THERE IS NO FINDING NO. 517]

518. [THERE IS NO FINDING NO. 518]

9. Secondary Considerations

519. Prior to the invention of the '792 patent, there was a problem with breakage of the plastic latches on the plastic latch SIMM connectors. (JX-34 at 40).

520. In the 1987-1989 time frame, there was a latch breakage problem with the plastic latch SIMM connectors. (JX-29 at 113; JX-35 at 50; JX-39 at 23).

521. In 1989, it was known throughout the industry that plastic latch SIMM connectors had a latch breakage problem. (JX-18 at 20).

522. Throughout the time period of 1987 and 1988, had problems with plastic latches breaking on plastic latch SIMM connectors. (CX-54 to CX-60).

523. The plastic latches on the SIMM sockets in the 1987 to 1989 time frame tended to break when either seating the card into the socket or removing the card from the socket. (JX-29 at 19).

524. The plastic latch breakage problem was a high focus item in the connector group at in the 1987-1989 time frame. (JX-29 at 20).

525. The plastic latch breakage problem in the 1987-1989 time frame was a significant problem to (JX-29 at 21).

526. When first started with the connector commodity group at it was industry knowledge that there was a plastic latch breakage problem with plastic latch SIMM connectors. (JX-36 at 28-29).

527. At the time joined the connector commodity group, the plastic latch breakage problem with SIMM connectors was an urgent problem to (JX-36 at 32).

528. The latch breakage problem on plastic latch SIMM connectors was one of the larger interconnect problems at (JX-39 at 23).

529. Some customers in the field were putting a lot of pressure on the suppliers, not just on AMP to solve the problem associated with plastic latch SIMM connectors as quickly as possible. (Williamson, Tr. at 576).

530. The plastic rotate-and-latch connector suffered from various problems. First, as plastic is not a particularly resilient material, the latches tended to become permanently deformed, and therefore did not grip the card properly. Second, due to space requirements the latches were quite thin,

and as a result, they tended to break. (Williamson, Tr. at 188).

531. Problems existed with plastic latch SIMM connectors as shown in RBPX-38 and RBPX-96. For example, the plastic latches on these connectors would break, take a permanent set, and the daughter card would score or abrade the latches. (Strich, Tr. at 2914).

532. Both connector manufacturers and consumers were aware of the problems associated with plastic rotate-and-latch connectors. (Williamson, Tr. at 189).

533. Problems with plastic latch SIMM connectors included plastic latch breakage, latches taking an improper set, and shaving of the latch during insertion of the daughter card. (Williamson, Tr. at 527-28).

534. When the connector industry decided it needed rotate-and-latch connectors, the latches were designed in plastic. When it was discovered that the plastic latches had problems, the industry did everything it could to avoid losing the benefits of the plastic monolithic structure. (Williamson, Tr. at 570).

535. The use of monolithic structures in the SIMM connector industry produced cost-savings. (Williamson, Tr. at 540-41).

536. One of the benefits of plastic is the ease with which complex three-dimensional structures can be manufactured in one single operation under the conditions of mass production. (Williamson, Tr. at 534).

537. There are advantages of monolithic plastic SIMM connectors. First, there is only one part and that is very important in a mass production industry. With a single part, there is no inventory control problems. There is no potential for improperly assembling a part that perhaps should have gone on a different connector. Further, assembly steps are minimized.

(Williamson, Tr. at 534).

538. Plastic materials have always been good insulators, and always formed the insulation of connectors. As time went on and better plastics became available, more and more designs utilized plastic. So, it was fairly natural to try to utilize one of the latest high temperature plastics that would meet the soldering temperatures for the latch, and plastics were touted by the material manufacturers as having sufficient strength for the latch configuration. Thus, it was a natural thing to use plastic for the latch. (Strich, Tr. at 2921).

539. In March of 1988, AMP's MicroEdge SIMM connector still had plastic latches. (JX-35 at 56-577).

540. As of May of 1988, AMP had still not considered the use of metal latches to solve the latch breakage problem. (JX-35 at 65).

541. After their initial shipments, AMP's patented metal latch cam-in SIMM connectors received an enthusiastic reception from AMP's customers and the computer industry. From 1990 to the present, the patented SIMM connectors have been one of the fastest growing and largest selling products of AMP. Since their introduction, they have accounted for over in sales. (Bruggeworth, Tr. at 890).

542. Bruggeworth believes that the majority of the sales of metal latch SIMM connectors are the direct result of the product having a metal latch. (Bruggeworth, Tr. at 890).

543. The improved metal latch connectors are priced substantially higher than their predecessor plastic latch connectors are sold in the U.S. at prices that average above the prices of its plastics latch SIMM connectors. The patented connectors, however, account for approximately

of AMP's U.S. cam-in SIMM connector sales. (Bruggeworth, Tr. at 893-894).

544. The commercial success of the patented metal latch cam-in SIMM connectors is seen from the royalty payments made by Molex Incorporated, the second largest maker of electrical connectors in the world. These royalty payments represent the _____ of connections per year that Molex has sold using the patented design. (CX-10E; CX-12).

545. Shortly after the introduction of AMP's separate resilient metal latch SIMM connector, Molex appeared on the market with an improved design similar to AMP's AMP filed suite against Molex shortly after the '765 patent was issued, and Molex accepted a nonexclusive license on March 13, 1991

(CX-10E).

546. Under the license between AMP and Molex referenced in the previous finding, Molex is licensed under the '792 patent as well. (CX-10E). Molex also submitted to a Consent Judgment finding that it had infringed the '765 patent and that the '765 patent is valid. (CX-10E).

547. Others have copied AMP's patented connector. Berg's predecessor, Du Pont Connector Systems (a subsidiary of E.I Du Pont), agreed to withdraw infringing SIMM connectors from the United States after AMP charged it with infringement of the '765 patent. (Anderson, Tr. at 547).

548. In addition, Millennium Electronic Sales, Inc. and Methode Electronics, Inc. both agreed to Consent Judgments finding the '765 patent valid and infringed. (CX-10K; CX-10L).

549. In March 1991, AMP sued Foxconn for infringement of the '765 patent by a metal latch cam-in SIMM socket Foxconn introduced into the United States in early 1991. In June 1991, AMP settled the lawsuit after obtaining

an agreement from Foxconn to cease importation and sale of the connector. Shortly thereafter, Foxconn again introduced an infringing metal latch cam-in SIMM connector, forcing AMP to file a second lawsuit. After AMP's filing of that suit, Foxconn agreed to cease importation and sale of its new model, and to abide by its June 1991 settlement agreement with AMP. (CX-10G).

550. A Tekcon internal report dated June 3, 1994 states:

(CX-178, Bates Nos. 330-333).

551. Wang began work at Du Pont in September or October of 1989. (JX-18 at 201--202).

552. In the September - October 1989 time frame, Berg's predecessor, Du Pont, did not have a SIMM socket in production. (Wang, Tr. at 1827, 1836).

553. In September or October of 1989, there was an effort under way to design a SIMM socket at Berg's predecessor, Du Pont. (Wang, Tr. at 1838-1839).

554. The team working at Du Pont to design a SIMM connector in the late 1989 time frame included two senior, experienced engineers. (Wang, Tr. at 1840; JX-18, at 62-63).

555. In the September to October, 1989 time frame, Berg's predecessor, Du Pont, had a design for a SIMM connector that it was considering that

included plastic latches. (Wang, Tr. at 1840).

556. Du Pont's first SIMM socket was a plastic latch SIMM connector. (JX-18 at 56).

557. Berg's predecessor, Du Pont, ultimately adopted a SIMM socket design with plastic latches and started production in late 1989. (Wang, Tr. at 1840-1841; JX-18 at 57).

558. In 1989, Du Pont, Berg's predecessor, became aware of a breakage problem with the plastic latches on the plastic latch SIMM connectors. (Wang, Tr. at 1842-1843).

559. Berg's predecessor, Du Pont, first made samples of a metal latch SIMM connector sometime in late 1989 or early 1990. (JX-18 at 71).

560. The people who worked in late 1989 on the SIMM connector team at Berg's predecessor, Du Pont, were mechanical engineers who had worked with the company at least 10 years. (JX-18 at 78-79).

561. Du Pont's first metal latch SIMM connector was ready as a final product around the first half of 1990. (JX-18 at 220).

10. Infringement

Berg

562. CPX-17 is representative in all material respects of all of Berg's vertical metal latch SIMM connectors. (CX-333, Stipulation, ¶8).

563. CPX-21 is representative in all material respects of all of Berg's 40° and 25° metal latch SIMM connectors. (CX-333, Stipulation, ¶9).

564. The limitations set forth in the preamble of claim 17 of the '792 patent are found in Berg's vertical, 40° and 25° metal latch SIMM connectors (CPX-17). (Kirk, Tr. at 3384-3385, 3388-3389).

565. CPX-17 and CPX-21 are electrical connectors for connecting a

daughter card and a mother board, the daughter card being rotatable relative to the mother board between a first and a second position. (CX-18, at 11, ¶ 5; Williamson, Tr. at 220 and 224; Kirk, Tr. at 3384-85, 3388-89).

566. Each of CPX-17 and CPX-21 has a housing with a card receiving slot dimensioned to receive the daughter card therein. (CPX-17; CPX-21).

567. Each of CPX-17 and CPX-21 has contact terminals positioned adjacent to the card receiving slot and configured to make an electrical connection with the daughter card when the daughter card is in the second position in the card receiving slot. (CPX-17; CPX-21). There is a separate resilient latch in each of CPX-17 and CPX-21. (CPX-17; CPX-21).

568. In CPX-17 and CPX-21, after a daughter card is rotated from the first position to the second position, the latches cooperate with the daughter card to maintain the daughter card in the second position. (Williamson, Tr. at 223-24; Kirk, Tr. at 3387-3388).

569. The latches of CPX-17 and CPX-21 are metal members as required by claim 18 of the '792 patent. (CX-18, at 11-12, ¶ 7; Kirk, Tr. at 3389; Williamson, Tr. at 225).

570. The latching portions of the latches of CPX-17 and CPX-21 each have an engagement section with a lead-in surface so that as a daughter card is rotated from the first position to the second position, the daughter card will engage the lead-in surface, causing a resilient arm of the latch to be cammed away from the card receiving slot, allowing for the continued rotation of the daughter card to the second position, as required by claims 21 and 23 of the '792 patent. (CPX-17; CPX-21).

571. The end portion of Berg's vertical metal latch SIMM connector (CPX-17) has a reduced width in side-to-side dimension compared to the other

portion or remaining portion of the housing. (Kirk, Tr. at 3300; CX-261 (RBX-200), ¶ 23).

572. The rib on the Berg vertical metal latch SIMM connector (CPX-17) that projects through the opening of the latch limits the movement of the latch in a direction transverse to the length of the card receiving slot. (Kirk, Tr. at 3316; CX-261 (RBX-200), ¶ 32).

573. In the Berg vertical metal latch SIMM connector, to install the latch to the connector, the latch metal is brought to the reduced width housing section and is placed in position on the housing and thereafter being placed on the housing an additional operation is used whereby the latch is deformed or squeezed so that the latch is permanently affixed to the housing, i.e. is permanently affixed into position by bending the metal of the fixing portion. (Kirk, Tr. at 3301, 3317-18).

574. In Berg's 40° and 25° metal latch SIMM connectors (CPX-21), there is a separate resilient latch which has been brought to the housing. (Kirk, Tr. at 3306-07).

575. Portions of the latch on Berg's vertical metal latch vertical SIMM connector (CPX-17; RBPX-26) are resilient. (Kirk, Tr. at 3386; CPX-17; RPX-26).

576. A cross-sectional view taken along the lines A-A of RBPX-93 is similar to the cross-sectional view that is shown and taken along the lines C-C of RBPX-90. (Strich, Tr. at 3107-3109).

577. Each of CPX-17 and CPX-21 does not have a latch receiving section at their ends adjacent the card receiving slot. (Kirk, Tr. at 3311, 3319).

578. Each of CPX-17 and CPX-21 does not have a latch with a base portion positioned in a latch receiving section. (Kirk, Tr. at 3311, 3319).

Tekcon

579. The Tekcon 1580 and 3580 series SIMM connectors are vertical metal SIMM connectors. (Ting, Tr. at 2494; CX-334, Stipulations ¶ 34, 35).

580. The Tekcon 3582 series SIMM connector is a 40° metal latch SIMM connector. (JX-16, at 123; Ting, Tr. at 2494; CX-334, Stipulations ¶34, 35).

581. CPX-026 is representative of Tekcon's metal latch SIMM connectors at issue in this proceeding with respect to the issue of infringement. (Tr. at 236-37).

582. Tekcon's metal latch SIMM connectors are electrical connectors for connecting a daughter card and a mother board, the daughter card being rotatable relative to the mother board between a first and a second position. (CX-334, Stipulations ¶¶ 25, 26).

583. Tekcon's metal latch SIMM connectors each have a housing with a card receiving slot dimensioned to receive the daughter card therein. (CX-334, Stipulations ¶21).

584. Tekcon's metal latch SIMM connectors each have contact terminals positioned adjacent to the card receiving slot and configured to make an electrical connection with the daughter card when the daughter card is in the second position in the card receiving slot. (CX-334, Stipulation ¶ 21).

585. Tekcon's metal latch SIMM connectors each includes a mounting hole located at each end of the housing and adjacent the locating part (reference numeral 9) (CX-334, Stipulations ¶ 20).

586. Tekcon's metal latch SIMM connectors each include a non-integral resilient latch. CX-334, Stipulations ¶'s 14, 15 and 16).

587. In the Tekcon metal latch SIMM connectors, the latches are

positioned in mounting holes located at each end of the housing such that the mounting holes cooperate with the latches to limit movement of the latching portions in a direction transverse to the length of the card receiving slot. (CPX-27; CX-334, Stipulations ¶'s 22, 23, 24, 25).

588. In the Tekcon metal latch SIMM connectors, after a daughter card is rotated from the first position to the second position, the latches cooperate with the daughter card to maintain the daughter card in the second position. (CPX-26; CX-334 Stipulations ¶'s 12, 13, 14).

589. The latches of the Tekcon metal latch SIMM connectors are metal members as required by claim 18 of the '792 patent. (CX-334, Stipulations ¶'s 15, 16).

590. The latching portions of the latches of the Tekcon metal latch SIMM connectors are positioned outside of the mounting hole and extend toward the card receiving slot as required by claim 20 of the '792 patent. (CPX-26; CPX-27).

591. The metal clips of the Tekcon metal SIMM connectors at the mounting hole and further are positioned at the mounting hole and also are positioned at the mounting hole on either side of the plastic housing (CX-334, Stipulations ¶'s 23, 24).

592. The metal clips, locating posts and mounting posts of the Tekcon metal SIMM connector are designed to prevent a properly inserted daughter card from moving in a direction transverse to the length of the daughter and receiving slot. (CX-334, Stipulations ¶ 25).

593. Tekcon's vertical connectors have separate metal latches with a portion of their latches inserted into an opening or recess in the connector housing located adjacent the card receiving slot (CPX-26; CPX-27; CX-334,

Stipulations ¶'s 22, 23, 24).

594. During the rotation of other daughter card into its operating position, the daughter card engages stop arms on the metal clips which are positioned at the ends of the plastic housing used in the Tekcon metal SIMM connector. As the rotation continues, the stop arms are caused to move by the daughter card in a direction away from the SIMM socket which is formed in the plastic housing. (CX-334, Stipulation ¶ 13).

595. Each of the metal clips used in the Tekcon SIMM connector includes a stop arm which engages the daughter card during the daughter card insertion process as the daughter card is rotated into its operating position such that the metal clips are pushed outwardly in a direction away from the daughter card receiving slot as the daughter card is rotated towards its operating position. (CX-334, Stipulations ¶26).

596. All of the preamble of claim 17 is found in the Tekcon connectors. (CX-26, CPX-27).

Foxconn/Hon Hai

597. Physical Exhibit CPX-29 is a metal latch SIMM connector having vertical orientation and tin plated contacts and a molded indication that it is a Hon Hai product. (Simonic, Tr. at 1132-33; CPX-29).

598. Physical exhibit CPX-31 is a metal latch vertical orientation cam-in SIMM socket with tin-plated contacts having an identification mark on it indicating that it is manufactured by Hon Hai. (Simonic, Tr. at 1134; CPX-31).

599. AMP's salesman, _____ obtained a sample of the Hon Hai metal latch SIMM connector and submitted it to _____ for his review. (Simonic, Tr. at 1133).

600. The Foxconn/Hon Hai connector, CPX-31, meets the preamble of Claim 17 and contains recesses or openings provided near the end of the housing and adjacent to the card receiving slot; a separate resilient metal latch having a base portion positioned in said recesses or openings; a latching portion on the resilient latch extending from the recesses or opening toward the card receiving slot and positioned outside said recesses the latch is positioned in the recesses or openings in such a way that the recesses or openings of the housing cooperate with the latch to limit movement of the latching portion in a direction transverse to the length of the card receiving slot; after a daughter card is rotated from a first position to a second position, the latches will cooperate with a daughter card to maintain the daughter card in this operational position. (CPX-29, CPX-30, CPX-31).

601. The Foxconn/Hon Hai Connector, has a camming action where the card is engaging on the engagement surface and it has a lead-in surface. (CPX-29, CPX-30, CPX-31).

602. CPX-29 and CPX-31 are metal latch SIMM connectors manufactured and sold by Foxconn/Hon Hai. (Simonic, Tr. at 1132-34; JX-011, at 18; CPX-29; CPX-31).

603. CPX-29 and CPX-31 are substantially identical (CPX-29; CPX-31).

11. Economic Prong Of Domestic Industry

604. The domestic industry in this investigation relates to the domestic production of metal latch connectors, whether for domestic sales or for exportation. (Hoffman, Tr. at 3500, 3516 (referring to Woloszyn declaration, CX-9), 3768).

605. is the accounting manager of AMP's Integrated Circuit Connector Products ("ICCP") Division, located in

His responsibilities include

(Woloszyn, Tr. at 749-50).

606. The ICCP Division manufactures metal latch connectors in

(Woloszyn, Tr. at 49; JX-41; JX-24).

607. Production of metal latch SIMM connectors by AMP Incorporated and its overseas subsidiaries takes place in the United States in

(JX-27 at 36).

608. Approximately of the ICCP Division's business is in metal latch SIMM connectors. (Bruggeworth, Tr. at 876).

609. The ICCP Division is divided into organizations of

(Bruggeworth, Tr. at 876-877Z).

610.

(Woloszyn, Tr. at 750-51,

754 CX-9B).

611.

(Woloszyn, Tr. at 754-55).

To determine the costs for product lines

the costs were allocated in accordance with the

percentage of sales revenues attributable to

(Woloszyn, Tr. at 755-56, 806).

612. All of the SIMM connector part numbers that fall within
are metal latch SIMM connectors. (JX-32 at 17).

613. Bruggeworth identified CPX-1 as a vertical metal latch MicroEdge SIMM socket, CPX-2 as a 40 degree metal latch socket, CPX-3 as low-profile, 22 1/2° MicroEdge metal latch SIMM socket, and CPX-4 as a right-angle metal latch SIMM socket. (Bruggeworth, Tr. at 880).

614. CPX-1, 2, 3 and 4 are all cam-in style connectors. (Bruggeworth, tr. at 882). Woloszyn used the term "cam-in" in a descriptive sense.

615. CX-289 is a catalogue of some, but not all, of the sockets the ICCP Division manufactures. SIMM sockets are located in this catalogue starting at page 21. (Bruggeworth, Tr. at 881).

616. Page 35 of CX-289 contains the descriptions of the metal latch SIMM sockets for the MicroEdge line. (Bruggeworth, Tr. at 882-883).

617. 1994 sales revenues of AMP's metal latch cam-in SIMM connectors manufactured by the ICCP Division were approximately and the 1994 gross income for the metal latch cam-in SIMM connectors was approximately (Woloszyn, Tr. at 755-57; JX-49, p. 15).

618. AMP employed the equivalent of an additional persons to indirectly support AMP's manufacturing and engineering activities at a cost of (CX-009, CX-009A).

619. AMP's capital investments in 1994 indirectly devoted to the manufacture of metal latch cam-in SIMM connectors amounted to _____ in original value, and _____ in present book value. (CX-009, CX-00A).

620. AMP made additional captial investments in land and equipment that, as of 1994, had an original value of _____ and a book value of _____ (CX-009, CX-009A).

621. AMP has devoted an additional _____ square feet for activities indirectly related to metal latch cam-in SIMM connectors in 1994. 9CX-009, CX-009A).

622. AMP's 1994 investment in land relating to the metal latch cam-in SIMM connectors totalled _____ square feet. (CX-009, CX-009A).

623. In the first quarter of 1995, the ICCP Division's total direct costs for the HS product line approximated _____ total costs for the product line approximated _____ total costs for the product line approximated _____ and total costs for the product line approximated _____ (Woloszyn, Tr. at 762-63, CX-309).

624. In 1994, AMP's ICCP Division employed the equivalent of _____ persons in _____ whose work was directed solely to the manufacture of the metal latch cam-in SIMM connectors, and who earned a total salary of _____ (Woloszyn, Tr. at 756-58; CX-9).

625. AMP's original capital investment in equipment directly devoted to the manufacture of metal latch cam-in SIMM connectors as of 1994 totaled _____ and had a book value of _____ in 1994. (Woloszyn, Tr. at 760-61; JX-40, p. 17).

626. In 1994, AMP's investment in land devoted to the production of metal latch cam-in SIMM connectors includes _____ square feet or floor space

in

(Woloszyn, Tr. at 760-62; CX-9A).

627. In the first quarter of 1995, the ICCP Division's direct costs for the product line approximated total costs for the product line approximated total costs for the HF product line totaled and for the product line approximated (Woloszyn, Tr. at 762-64; CX-309).

12. Harm

628. Mark A. Peterson was qualified as an expert, for complainants, in the analysis of harm and damages as it relates to intellectual property matters. (Tr. at 1265).

629. Abram E. Hoffman was qualified as an expert, for respondent Berg, in economic analysis of markets and competitions, including product marketing definition, prices, profitability and the value of intellectual property. (Tr. at 3499).

630. AMP's Simonc who is an

(JX-47 at 6, 10) testified that

(JX-47 at 73, 74). The administrative law judge finds that latter testimony inconclusive.

631. AMP originally projected MicroEdge metal latch SIMM connector sales of for 1995.

(Buggeworth, Tr. at 995).

(JX-27 at 94; RBX-12, 0157569).

632. Dixie Lee Drybread-Erdman testified on June 8, 1995, that the existing designs on SIMMs will continue for

(JX-32 at 43). Even though SIMM will phase out in the next three to five years and DIMM will replace a lot of SIMM, experience has been that when one thinks a product is phased out, it never really truly phases out and there are some product lines that Berg started in the sixties and still continued to maintain them. (Wheeler, JX-22, Vol. IV at 36).

633.

634.

(JX-47 at 57).

635. Documents from AMP's Integrated Circuit Connector Products division, which makes the SIMM connector product line, establish

(Hoffman, RBX-1 at 4-8).

636. Each of AMP's annual reports for the years 1991, 1992, 1993 and 1994 states

(Hoffman, RBX-1 at 7, 8).

637. According to the 1994 Fleck Research report, an industry publication, "Price erosion has been dramatic in the recent period." It also states, "Significant price erosion has been occurring in SIMM sockets in the U.S. marketplace ..." (Fleck Research 1994, p. 1-3; Hoffman, RBX-1 at 7, 8).

638. AMP's internal sales documents show that

(Hoffman, RBX-1 at 8).

639.

(CX-46).

640.

(Bruggeworth, JX-27 at 136 to 138).

641. AMP's Simonic testified that

(JX-47 at 191-192).

642.

(Hoffman, RBX-1B at 4, 5).

643.

(Hoffman, RBX-1 B at 5).

644. The size and relative market shares for domestic SIMM connector competitors show that AMP's licensee Molex is AMP's competitor in the plastic and metal latch SIMM connector market. (Hoffman, RBX-1, B at 5, 6).

645. AMP's 1995 annualized metal latch SIMM connector market share (in units) is In the overall SIMM connector market (metal and plastic latch), AMP has likewise

(Hoffman RBX-1B at

6).

646.

(Hoffman RBX-1B at 6).

647.

(RBX-12, AMP-0157501).

648. Factors that go into a customer's decision on who they are going to choose to supply it include price, relationship and service level with the customer, how often requests can be fulfilled on different types of products, delivery performance and quality. (Dalrymple, JX-6 at 28, 29).

649. AMP's Simonic testified (JX-47 at 50-51):

650. CX-236 is AMP's Integrated Circuit Connector Products (ICCP) 1995 business plan.

(Bruggeworth, Tr. at 937, 938).

651.

(Hoffman, RBX-1B, Exhibit 2B, Exhibit 16B).

652. (Peterson, Tr. at 1631).

653. User friendly plastic latches are an innovation that have many of the features of metal latch SIMM connectors in that the latch itself is

clearly distinguishable from the housing and provides a surface for a thumb to move to latch back and allow the SIMM card to be rotated into position, and provides an alternative to metal latches that brings plastic latch and metal latch closer together as substitutes. (Hoffman, Tr. at 3768, 3769).

654. Some of Berg's customers use metal latch, some will use plastic but most use both. (Anderson, Tr. at 2571).

655. An AMP document (CX-234)

(Bruggeworth, Tr. at 993, 994).

656.

(RBX-32)

states in part:

(Tr. at 1168, 1169).

657.

(Drybread-Erdman JX-32) at 97-98,

RBX-18, AMP-0153475).

658.

(Simonis, Tr. at

1172, 1173).

659.

(DiCarlo, Tr. at 719).

660.

(Hoffman, Tr. at 3520).

661.

(CX-77, 1).

662.

(Baily, JX-26 at 48-49).

663. Plastic latch connectors never have been relegated to a minor role in the domestic market. (Hoffman, Tr. at 3515).

664.

(RBX-1BXC, Exhibit 7B, Exhibit 16B, Hoffman, Tr. at 3512).

665. With respect to the decline of prices of metal latch and plastic latch SIMM connectors, Hoffman testified (Tr. at 3520 to 3523):

666. There are downward price pressures in the computer industry as a whole due to the fact that the end products in the industry are highly cost competitive. Thus, Peterson testified (Tr. at 1299, 1300, 1640, 1641):

667.

(Bruggeworth, Tr. at 1009).

668. AMP's Simonic testified that

(Tr. at 1186).

669. Peterson admitted that

(Peterson, Tr. at 1640).

670. Referring to Peterson's testimony that PC prices were declining

Hoffman testified (Tr. at 3531):

671. Price pressures on the original equipment manufacturers (OEMs) in the computer industry places pricing pressures on the suppliers of computer components, including the suppliers of SIMM connectors. Thus, Anderson testified (Tr. at 2590):

Q Do you have an understanding as to how prices of SIMM connectors have behaved since their introduction?

A Yes, I do. I -- not unlike any other connector scheme I've ever seen, the pressure from OEMs to have us continuously reduce prices is incredible. And year after year there's an expectation in our industry that we're going to -- as the volume increases and as our efficiency improves that we're going to meet their expectations.

On many occasions they have made it clear that if we aren't in a position to reduce our prices 10 percent per year, 10 to 15 percent per year, that they don't even want us -- they won't even send us a quote package. And it's a pressure that's been put on us by the OEMs ever since I've been associated with this industry.

Q Okay.

A It's not unlike -- I mean, it's downward pressure continuously.

672.

673.

674. According to AMP's Simonic

He testified (JX-47 at 61, 62):

675.

679. Complainant's expert Peterson has admitted that

(Peterson, Tr. at 1633).

680. With respect to the bidding process with the original equipment manufacturers (OEMs) to whom AMP, Molex and the respondents do business in the SIMM connector:

681.

(Simonik,

Tr. at 1143).

682.

(RBX-40, AMP-0197599, 600, 601, 604, 607 and 611).

683. With respect to elasticity studies between a plastic latch and metal latch, Hoffman performed such studies. He testified (Tr. at 3603, 3604):

684.

(Hoffman, Tr. at

3607).

685. Complainant's expert Peterson essentially acknowledged that the damages complainants might incur if no TEO issued could be quantified. Thus, he testified (Tr. at 4535, 4536):

686. AMP and its licensee Molex the market for metal latch cam-in SIMM connectors with percent of sales. Thus prior to the issuance of the '792 patent in January 1995, AMP and Molex shared about percent of the U.S. metal latch SIMM connector market with AMP having a percent market share and Molex having a percent market share. (Hoffman, RBX-1B, Exhibit 5). AMP's sales for the first few months of 1995 indicate that

(Hoffman, RBX-1B, Exhibit 5). In 1994, AMP controlled percent of the combined plastic and metal latch SIMM connector market, and Molex controlled percent. In 1995, AMP is projected to control percent of the total SIMM market, with Molex controlling percent. Thus AMP and its licensee Molex control approximately percent of the total SIMM connector market. (RBX-1B, Exhibit 10).

687.

(RBX-22).

688.

(CPF 1376).

689.

690.

(JX-17 at 49).

691.

(JX-17 at 55, 56).

692.

693.

Simonic, in a declaration (CX-15 at 5), stated that at least since

(Tr. at 1163, 1164).

694. At the closing argument the administrative law judge asked complainants' counsel whether the '792 patent covered the DIMM. He answered.

(Tr at 4986):

695.

(JX-20 at 22).

696. A strategic account is an account that is targeted by Berg where they believe they have good relationships and that Berg believes will be leaders in the industry for the future. (JX-20 at 22).

697. Berg has sold a vertical metal latch SIMM connector to which sale was negotiated at a Palm Springs meeting in mid-January 1995.

usage of a plastic latch connector is probably four times that of the metal latch. has four sources for its SIMM, viz. AMP, Molex, Berg and Foxconn. Berg priced the connector sold to Compaq below the actual standard cost for the same reasons "as the previous year agreement." Berg wanted to "continue to grow with gain share there, and there was a company decision to take that business at contribution margin." Contribution margin is the margin over and above the direct cost and the selling price. Direct costs are those costs associated with the SIMM product line. With respect to

how Berg benefits, the testimony was:

A I think every year for several years now we have gained share at [redacted] and we have a very good relationship. I know that we are the number one preferred supplier at [redacted] I don't think this SIMM had anything to do with it one way or another. It helped us to gain share certainly, but other than that I don't think it would have impacted it greatly had we had the business or not.

* * *

A Berg is the preferred supplier at [redacted] wants to work with us because they appreciate our performance and our deliveries and our quality, and we want to work with [redacted] We want to gain share because we believe they are a leader in the industry. It's a company decision to continue to take SIMM business at contribution margin to grow share and stay with [redacted]

(Wheeler, JX-20 at 24 to 26, 28 to 31).

698. According to Anderson Berg's quoted price to [redacted] was to meet competitive prices offered by AMP and Molex. (JX-2 at 21).

699.

(RBX-11, AMP-0229216).

700.

(Simonic, CX-15 at 9).

701. According to a Wheeler memo, Berg offered worldwide pricing for SIMM connectors for the 1994-95 contract. (CX-93).

702. Berg intended to maintain its prices to until September 1, 1995 despite competitive pressure in Europe and Asia. (CX-92 at 4023; CX-96 at 13232-35).

703. Berg sells metal latch SIMM connectors to for the Other computer manufacturers that use

(JX-9 at 84-85).

704. As to Berg and Berg's Hannekan testified (JX-9 at 71 and 72):

Q Do you believe that awarded its metal latch SIMM connector business to the lowest bidder?

A No.

Q Why do you believe they didn't?

A I believe they wanted Berg Electronics as a connector supplier, and I believe that they wanted Foxconn as a connector supplier. To the best of my knowledge we met, did not beat but met all competitive pricing in metal latch SIMM which is to say we met Foxconn's price. They gave us the SIMM portion of it even though we were priced the same because we were a strong player in SIMM in the sense that we were manufacturing the product ourselves in Taiwan, but we were not a strong player in the D set miniature connector where Foxconn was strong.

* * *

A Sure. Pricing is a factor in everything that happens at

Q Do you believe it was a significant factor?

A Yes.

Q Was it the primary factor?

A No.

705.

(JX-9 at 46 to 48).

706. Berg has not sold metal latch SIMM connectors to

(Wheeler, JX-22 at 52, 53).

707.

(Simonic, Tr. at 1176).

708.

(Simonic, CX-15 at 10).

709.

(JX-38 at 28-29).

710. Berg's sales are based upon the four P's: personal relationships, product differentiation, promotion and price. The first three P's help to position Berg's product so that it has greater value to the customer.

(Ancerson, Tr. at 2574-77).

711. Prior to the issuance of the '792 patent Wheeler of Berg provided

a quote to to discuss Berg's possibility of becoming a SIMM supplier. (JX-19 at 87).

712.

(CX-15D-7(C), 1).

713. AMP's ICCP Division expects to have (JX-27 at 11-18).

714. According to an AMP document,

(Tr. at 1047,

1048).

715. AMP's ICCP Division identified its outlook

(RBX-12, AMP-0157517).

716.

(JX-38 at 27, 28).

717.

(Simonic, CX-15 at 11).

718.

(CX-236 at 157504).

719. With regard to the last time Ms. Dalrymple quoted metal

latch SIMM connectors was in 1994. (JX-6 at 18).

720. Berg prior to the issuance of the '792 patent "discussed the possibility of taking at their very low prices only while capacity was available." (CX-117 at 12035).

721. AMP's DiCarlo, who is an account Executive for AMP's many products, in a declaration stated. (CX-17 at 1, 2):

722.

(Taylor, JX-15 at 45, 46 and 81).

723.

(DiCarlo, Tr. at 728).

724.

(DiCarlo, Tr. at 718).

725.

(RBX-11 at 0229226).

726.

(RBX-9 at

500205).

727.

728.

729. Complainants rely on Tekcon's Company Profile. (CX-186).

Complainants do not show to who those estimated sales would be made.

730.

(CX-44; Bruggeworth, Tr. at 991, 1058).

731.

(Bruggeworth, Tr. at 1040).

732.

(JX-27 at 1188, 130, 139-

40).

733.

(Bruggeworth, Tr. at 992).

734.

(Bruggeworth, Tr. at 992)

735.

(Bruggeworth, Tr. at 895-965).

736.

(Bruggeworth, Tr. at

1078-1083; Peterson, Tr. at 1667-1681).

737.

(Peterson, Tr. at 1667-1681).

738.

(Simonis, Tr. at 1143).

739.

(RBX-82; RBX-83).

740.

(RBX-87; RBX-86).

741. Computer manufacturers give suppliers target prices to meet. (JX-6 at 22).

742.

(Simonis, Tr. at 1178).

743.

(JX-47 at 104, 137, 140, 158; RBX-40).

744.

(CX-216, AMP 194791).

745.

(CX-216, AMP 194793).

746.

(CX-15G-2).

747.

(CX-217).

748.

(Bruggeworth, Tr. at 1042).

749.

(CX-15K-1; CX-15K-3).

750. Peterson acknowledged that he has frequently testified that damages associated with patent infringement are quantifiable. (Peterson, Tr. at 1567-69).

751.

(Bruggeworth, Tr. at 995).

752.

(JX-32, 73; RBX-12, AMP 0157560).

753.

(RBX-12, AMP 0157517).

754.

(CX-293).

X. Conclusions Of Law

1. The Commission has in rem jurisdiction and subject matter jurisdiction.
2. Complainants are likely to succeed on the merits with respect to establishing that there is a domestic industry defined by claims in issue.
3. Assuming the '792 patent in issue is valid and is enforceable, complainants are likely to succeed on the merits in establishing that respondents Tekcon and Hon Hai/Foxconn infringe the claims in issue of the '792 patent.
4. Assuming the '792 patent in issue is valid and is enforceable, complainants are not likely to succeed on the merits in establishing that respondent Berg infringes any of the claims in issue.
5. Complainants are likely to succeed on the merits in refuting any allegation that any claim in issue of the '792 patent is not valid under 35 U.S.C. § 102(f).
6. Complainants are likely to succeed on the merits in refuting any allegation that the '792 patent can not be asserted against respondent Berg because of any estoppel defense raised by Berg.
7. The administrative law judge finds that there has been a substantial question raised with respect to the validity of the claims in issue under 35 U.S.C. § 103.
8. The administrative law judge finds that there has been a substantial question raised with respect to the enforceability of the '792 patent.
9. Complainants are likely to succeed on the merits in refuting any allegation that any claim in issue of the '792 patent is not valid under 35 U.S.C. §112.
10. Complainants have not established that they will suffer irreparable harm

in the absence of temporary relief.

11. The balance of harms does not favor the granting of temporary relief.

12. The public interest does not preclude the granting of temporary relief, assuming it has been established that there is a need for such relief.

13. Motion No. 374-1 is denied.

14. Should the Commission grant Motion No. 374-1, a temporary limited exclusion order not including downstream products should issue. Also cease and desist orders, against each of the named respondents, should issue.

15. Should the Commission grant Motion No. 374-1, complainants should be required to post a bond of \$330,000 with \$280,000 targeted for Berg and \$50,000 targeted for Tekcon and each of respondents should be required to post a bond of seven percent of its respective U.S. sales of metal latch SIMM connectors in issue.

XI. Initial Determination And Order

Based on the foregoing findings of fact, conclusions of law, the opinion and the record as a whole, and having considered all of the pleadings and arguments presented orally and in briefs, as well as proposed findings of fact, Motion No. 374-1 is denied.

The administrative law judge hereby CERTIFIES to the Commission this initial determination, which is not a final initial determination, together with the record consisting of the following:

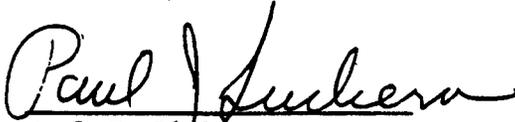
1. The transcripts of the prehearing conference, the hearing and the closing arguments;
2. The exhibits, admitted into evidence and the exhibits as to which objections have been sustained; and
3. ALJ Exhibits 1 to 11.

The pleadings of the parties filed with the Secretary are not certified, since they are already in the Commission's possession in accordance with the Commission's final rules.

Further, it is ordered that counsel for the parties shall have in the hands of the administrative law judge a copy of this initial determination with those portions containing confidential business information designated in brackets no later than Friday September 22, 1995. Any such bracketed version shall not be served by telecopy on the administrative law judge. If no such version is received from a party, it will mean that the party has no objection in removing the confidential status, in its entirety, from this initial determination.

Pursuant to the Commission final rule 210.24(17)(ii), this initial determination shall become the determination of the Commission thirty (30)

calendar days after issuance in this "more complicated" investigation, unless the Commission modifies or vacates the initial determination within that period.


Paul J. Kuckern
Administrative Law Judge

Issued: September 8, 1995

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of)
)
CERTAIN ELECTRICAL CONNECTORS)
AND PRODUCTS CONTAINING SAME)
_____)

DOCKET

Investigation No. 337-TA-37

DOCKET

95 SEP -8 15:00

OFFICE OF THE
U.S. INTERNATIONAL
TRADE COMMISSION

Order No. 23: Initial Determination Finding Respondent Foxconn In Default Pursuant to Commission Final Rule 210.16 And Thus Finding That Foxconn Has Waived Its Right To Appear, To Be Served With Documents And To Contest The Allegations At Issue In This Investigation

On June 30, 1995, complainants AMP Incorporated and The Whitaker Corporation moved under Commission final rule 210.16 to find respondent Foxconn International Inc. (Foxconn) in default for failing to comply with an order from the administrative law judge compelling Foxconn to respond to complainants' discovery requests. Complainants also moved the administrative law judge to draw adverse inferences against Foxconn for failure to act pursuant to Commission Rule 210.17 (Motion Docket No. 374-38).

Complainants, in support of their Motion No. 374-38, argued that on June 23, 1995 they moved for an order compelling Foxconn to respond to certain discovery requests; and that on June 27, 1995, after oral argument in which Foxconn participated, the administrative law judge ordered Foxconn to respond to complainants' discovery (Order No. 10). It is argued that Foxconn, rather than to comply with any order, sent a letter to the administrative law judge on June 28, 1995, stating that it has "decided not to participate in any of the ongoing or the future proceedings in this investigation" (Emphasis in the original) and that after withdrawing from this investigation, Foxconn

requested the administrative law judge to "quash all the outstanding Orders imposed on Foxconn and/or its officers." Id.

Complainants argued that under Commission final rule 210.16(a)(2), the administrative law judge may find Foxconn in default for failing to "make or cooperate in discovery" under Commission final rule 210.33(b); that it is readily apparent that Foxconn has chosen not to comply with Order No. 10; that further, Foxconn has made it clear that it does not plan to participate in "any of the ongoing or future proceedings in this investigation" (Emphasis added). It is argued that for the last two months, Foxconn has "marginally" participated in this investigation, thereby giving the impression that it would participate at the hearing; that yet, on the eye of the hearing, Foxconn unilaterally removed itself from the investigation; that while Foxconn has given the misleading impression that it is a tiny company unfamiliar with U.S. law and procedure, in district court proceedings between Foxconn and AMP on an unrelated patent matter, Foxconn has been represented by a contingent of well-known patent law firms and therefore has demonstrated that it is very familiar with U.S. legal proceedings.

Complainants further argued that under Commission final rule 210.17, the administrative law judge may draw adverse inferences and may issue findings of fact, conclusions of law, a determination of a violation under section 337, and orders that are adverse to a party that fails to act; that said rule 210.17 should be invoked here against Foxconn; that although Foxconn filed an answer to the complaint, Foxconn had indicated that it will not appear at the present hearing; nor did Foxconn file a pre-hearing statement, as the administrative law judge ordered all parties to do.

Complainants, in a supplement received on July 5, 1995, requested the following adverse inferences against Foxconn under Commission final rule

210.17:

1. Foxconn International, Inc. is a wholly owned subsidiary of Hon Hai Precision Industry Co., Ltd.
2. Foxconn International, Inc. is controlled by hon Hai Precision Industry Co., Ltd. and is acting as an agent for Hon Hai Precision Industry Co., Ltd.
3. Foxconn International, Inc. assists Hon Hai Precision Industry Co., Ltd. in the sale abroad and in the Untied States of metal latch cam-in SIMM connectors that infringe the '792 patent and that Foxconn International, Inc. knows will be imported into the United States.
4. Foxconn International, Inc. alone and through its parent Hon Hai Precision Industry Co., Ltd., sells metal latch cam-in SIMM connectors outside of the United States that infringe the '792 patent and that Foxconn International, Inc. knows will be imported into the United States.
5. Foxconn International, Inc. alone or through its parent Hon Hai Precision Industry Co., Ltd., sells metal latch cam-in SIMM connectors in the United States that infringe the '792 patent.
6. All products sold by Foxconn International Inc. are made by Hon Hai Precision Industry Co., Ltd.
7. The metal latch cam-in SIMM connectors that Foxconn International, Inc. sells are identifiable by a raised outline of a capital "H" on the connector.
8. Foxconn International, Inc. sells the metal latch cam-in SIMM connectors described in paragraphs 3 through 7 at substantially lower prices than AMP.
9. Foxconn International, Inc. intends to continue the activities set forth in paragraphs 3 through 8.
10. Foxconn International, Inc. through its parent Hon Hai Precision Industry Co., Ltd. is capable of substantially increasing its supply of metal latch cam-in SIMM connectors that infringe the '792 patent.
11. Foxconn International, Inc. through its parent Hon Hai Precision Industry Co., Ltd. is capable of importing metal latch cam-in SIMM connectors that infringe the '792 patent in such quantities as will fulfill the requirement of a substantial portion of the United States market for metal latch cam-in SIMM connectors.

12. Terry Gou is CEO of Foxconn International, Inc.

13. Foxconn International, Inc. is causing irreparable harm to Complainants.

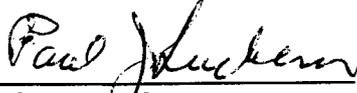
The staff in its posthearing brief dated July 28, 1995 argued that Foxconn has knowingly placed itself in default under the Commission's final rules and should be found in default under Commission final rule 210.16.

Commission final rule 210.16(a)(2) provides that a party may be found in default for failure to make or cooperate in discovery under Commission final rule 210.33(b), the rule pertaining to failure to comply with an order compelling discovery. In this case, Foxconn refused to comply with an order compelling discovery Order No. 10. Moreover, Foxconn has unequivocally stated in response to the order that it was "not going to participate in any of the ongoing or the future proceedings in this investigation." See attached letter dated June 28, 1995. Also, Foxconn did not file a response to Order No. 16 setting a response deadline of July 5, 1995 to complainants' motion to find Foxconn in default. Accordingly, Foxconn, pursuant to Commission's final rule 210.16, is found to have waived its right to appear, to be served with documents, and to contest the allegations at issue in this investigation.

Motion No. 374-38 is granted to the extent indicated.

This initial determination is hereby CERTIFIED to the Commission, together with supporting documentation. Pursuant to Commission final rules 210.42(c) and 210.42(h)(3) this initial determination shall become the determination of the Commission within thirty (30) days after the date of service hereof unless the Commission, within 30 days after the date of such

service shall have ordered review of the initial determination or certain issues therein or by order has changed the effective date of the initial determination.



Paul J. Luckern
Administrative Law Judge

Issued: September 8, 1995

(1) The Commission has in rem jurisdiction over Tekcon's electrical connectors and products containing same which are the subject of the complaint in this investigation, and the Commission has in personam jurisdiction over Tekcon for purposes of this Consent Order.

(2) Tekcon expressly waives all rights to seek judicial review or to otherwise challenge or contest the validity of this Consent Order.

(3) Tekcon will cooperate with and will not seek to impede by litigation or other means the Commission's efforts to gather information under subpart I of the Commission's Rules of Practice and Procedure, 19 C.F.R. Part 210.

(4) Enforcement, modification, or revocation of this Consent Order will be carried out pursuant to subpart I of the Commission's Rules of Practice and Procedure, 19 C.F.R. Part 210.

(5) This Consent Order shall not apply with respect to any claim of any intellectual property right that has expired or been found or adjudicated invalid or unenforceable by the Commission or a court or agency of competent jurisdiction, provided that such finding or judgment has become final and nonreviewable.

(6) Tekcon will not seek to challenge the validity or enforceability of the claims of the U.S. Letters Patent 5,383,792 (the "792 patent") in any administrative or judicial proceeding to enforce this Consent Order.

(7) AMP releases Tekcon and its customers from any liability for infringement

of the '792 patent or U.S. Patent No. 4,986,765 prior to the date of entry of this Consent Order.

(8) AMP will not seek to impede, by any actual or threatened proceeding under the U.S. patent laws in the U.S. International Trade Commission or with the U.S. Customs Service, the importation into the United States of products which contain Tekcon metal latch SIMM connectors. AMP will not seek, by any actual or threatened litigation under the U.S. patent laws, to seize products containing Tekcon metal latch SIMM connectors that have entered the United States.

(9) There are no agreements, written or oral, express or implied, between the parties concerning the subject matter of this investigation except the one page letter from William Brinks to Dorsey & Whitney and Tekcon attached to the Consent Order Stipulation and marked "Confidential," which is hereby incorporated by reference into this Consent Order.

NOW, THEREFORE, the Commission issues the following Consent Order:

(1) After May 31, 1996 and before May 31, 2001, Tekcon and its related companies shall not sell for import into the United States or sell in the United States after importation or knowingly aid, abet, encourage, participate in, or induce the sale for importation into the United States or sale in the United States after importation of electrical connectors which infringe any of the claims of the '792 Patent (including Tekcon's 1580, 3580 and 3582 series metal latch SIMM connectors), except under

consent or license from AMP. This paragraph shall not apply to the importation of connectors into the United States (1) solely for the purpose of effecting their transit to another country or (2) solely for the purpose of effecting non-market testing;

(2) Tekcon shall be precluded from seeking judicial review or otherwise challenging or contesting the validity of this Consent Order;

(3) Tekcon shall cooperate with and shall not seek to impede by litigation or other means the Commission's efforts to gather information under subpart I of the Commission's Rules of Practice and Procedure, 19 C.F.R. Part 210;

(4) Tekcon shall not seek to challenge and is precluded from any challenges to the validity or enforceability of the '792 patent in any administrative or judicial proceeding to enforce this Consent Order;

(5) When the '792 patent expires, this Consent Order shall become null and void;

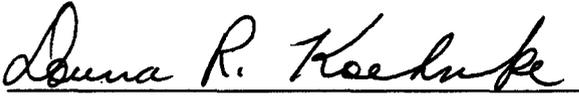
(6) If any of the claims of the '792 patent are held invalid or unenforceable by a court or agency or competent jurisdiction in a final decision, no longer subject to appeal, this Consent Order shall become null and void as to any such invalid or unenforceable claims;

(7) Tekcon shall be excluded from any further remedial action taken by the Commission in this investigation including any action against products containing Tekcon connectors. Nothing in this Consent Order, however, shall be construed as

precluding further remedial action by the Commission in this investigation, including the grant of a general exclusion order covering all electrical connectors or products containing electrical connectors which are not subject to this Consent Order.

(8) This investigation is hereby terminated with respect to Tekcon, and Tekcon is hereby dismissed as a named Respondent in this investigation; provided, however, that enforcement, modification, or revocation of this Consent Order shall be carried out pursuant to Subpart I of the Commission's Rules of Practice and Procedure, 19 C.F.R. Part 210.

BY ORDER OF THE COMMISSION


Donna R. Koehnke, Secretary

Dated: January 23, 1996

