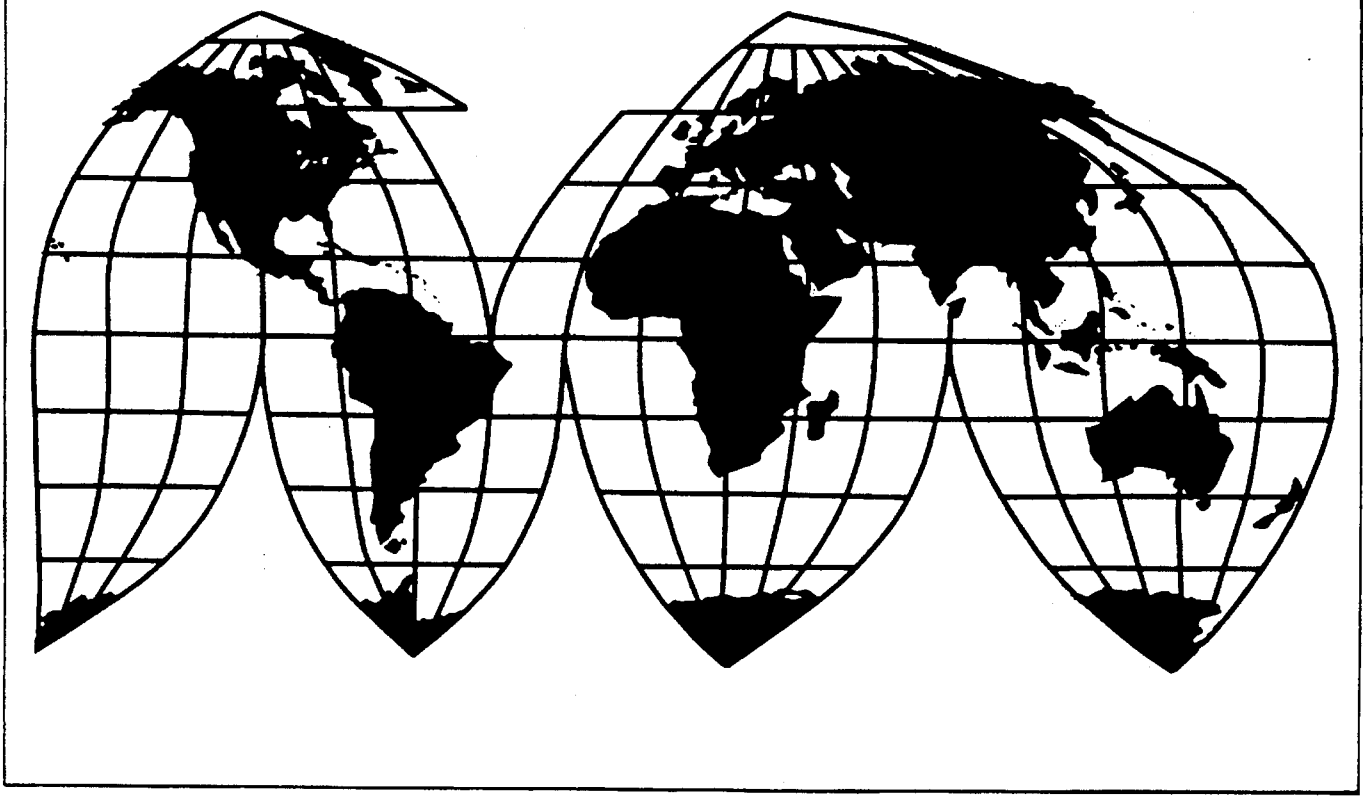
In the Matter of

Certain EPROM, EEPROM, Flash Memory, and Flash Microcontroller Semiconductor Devices, and Products Containing same

Investigation No. 337-TA-395

Publication 3136 **October 1998**

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

COMMISSIONERS

Lynn M. Bragg, Chairman
Marcia E. Miller, Vice Chairman
Carol T. Crawford
Jennifer A. Hillman
Stephen Koplan
Thelma J. Askey

Address all communications to
Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

U.S. International Trade Commission

Washington, DC 20436

In the Matter of

Certain EPROM, EEPROM, Flash Memory, and Flash Microcontroller Semiconductor Devices, and Products Containing same

Publication 3136

October 1998

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C. 20436

In the Matter of	
CERTAIN EPROM, EEPROM, FLASH MEMORY, and FLASH MICROCONTROLLER SEMICONDUCTOR DEVICES, and PRODUCTS CONTAINING SAME	**Inv. No. 337-TA-395**

ORDER[1]

The Commission instituted this investigation on March 18, 1997, based on a complaint filed by Atmel Corporation. 62 Fed. Reg. 13706. The complaint named five respondents: Sanyo Electric Co., Ltd., Winbond Electronics Corporation and Winbond Electronics North America Corporation (collectively "Winbond"), Macronix International Co., Ltd. and Macronix America, Inc. (collectively "Macronix"). Silicon Storage Technology, Inc. ("SST") was permitted to intervene.

In its complaint, Atmel alleged that respondents violated section 337 by importing into the United States, selling for importation, and/or selling in the United States after importation certain electronic products and/or components that infringe one or more of claim 1 of U.S. Letters Patent 4,511,811, claim 1 of U.S. Letters Patent 4,673,829, claim 1 of U.S. Letters Patent 4,974,565 ("the `565 patent"),and claims 1-9 of U.S. Letters Patent 4,451,903. The `565 patent was subsequently

[1] Commissioner Miller did not participate in this investigation.

removed from the case. The presiding administrative law judge ("ALJ") held an evidentiary hearing from December 8 to December 19, 1997.

On March 19, 1998, the ALJ issued his final ID finding that there was no violation of section 337. He found that neither claim 1 of U.S. Letters Patent 4,511,811 ("the `811 patent"), nor claim 1 of U.S. Letters Patent 4,673,829 ("the `829 patent"), nor claim 1 or claim 9 of U. S. Letters Patent 4,451,903 ("the `903 patent") was infringed by any product of the respondents or intervenor. He further found that the `903 patent was unenforceable because of waiver and implied license by legal estoppel, and that claims 2 through 8 of this patent are invalid for indefiniteness. He found that respondents and the intervenor had not demonstrated that any other claim at issue was invalid in view of any prior art before him, or that the `903 patent is void for failure to name a co-inventor. He found that complainant had not demonstrated that the `811 patent was entitled to an earlier date of invention than that appearing on the face of the patent. Finally, the ALJ found that there was a domestic industry with respect to all patents at issue.

On March 31, 1998, complainant Atmel filed a petition for review of the ALJ's final ID. On April 1, 1998, respondent Winbond filed a petition for review of the ALJ's ID. The other respondents and intervenor SST filed contingent petitions for review, raising issues to be considered in the event that the Commission determined to review certain of the ALJ's findings. In accordance with the Commission's directions, the parties filed

their initial briefs on May 26, 1998, and their reply briefs on June 5, 1998. Complainant Atmel and respondent Winbond requested oral argument, which request is hereby denied.

Having examined the record in this investigation, including the ID, the review briefs, and the responses thereto, it is hereby ORDERED THAT:

1. The investigation is terminated with a finding of no violation of section 337 of the Tariff Act of 1930.

2. The `811 and `829 patents are found to be invalid on the basis of issue preclusion.

3. The Commission takes no position on the ALJ's findings regarding claim construction, patent validity, patent priority, infringement, and domestic industry with respect to the `811 and `829 patents in accordance with *Beloit Corporation v. Valmet Oy, TVW Paper Machines, Inc. and the United States International Trade Commission,* 742 F.2d 1421 (Fed. Cir. 1984).

4. The Commission finds that the `903 patent is unenforceable for failure to name an inventor.[2]

5. The Secretary shall serve copies of this Order, and the forthcoming Commission opinion in support thereof, on the parties of record and on the Department of Health and Human Services, the Department of Justice, and the Federal Trade Commission, and publish notice thereof in the *Federal Register*.

By order of the Commission.

Donna R. Koehnke

Donna R. Koehnke
Secretary

Issued: July 02, 1998

---

[2] With regard to the `903 patent, Chairman Bragg in her supplemental views makes further findings on the issues of claim construction, validity, infringement, and domestic industry.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C. 20436

In the Matter of	
CERTAIN EPROM, EEPROM, FLASH MEMORY, and FLASH MICROCONTROLLER SEMICONDUCTOR DEVICES, and Products Containing Same	Inv. No. 337-TA-395

NOTICE OF FINAL DETERMINATION

AGENCY: U.S. International Trade Commission

ACTION: Notice

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has determined to find no violation of section 337 in the above-captioned investigation.

FOR FURTHER INFORMATION CONTACT: John A. Wasleff, Esq., Office of the General Counsel, U.S. International Trade Commission, telephone 202-205-3094.

SUPPLEMENTAL INFORMATION:

The Commission instituted this investigation on March 18, 1997, based on a complaint filed by Atmel Corporation. 62 Fed. Reg. 13706. The complaint named five respondents: Sanyo Electric Co., Ltd., Winbond Electronics Corporation and Winbond Electronics North America Corporation (collectively "Winbond"), Macronix International Co., Ltd. and Macronix America, Inc. (collectively "Macronix"). Silicon Storage Technology, Inc. ("SST") was permitted to intervene.

In its complaint, Atmel alleged that respondents violated section 337 by importing into the United States, selling for importation, and/or selling in the United states after importation electronic products and/or components that infringe one or more of claim 1 of U.S. Letters Patent 4,511,811, claim 1 of U.S. Letters Patent 4,673,829, claim 1 of U.S. Letters Patent 4,974,565 ("the `565 patent")and claims 1-9 of U.S. Letters Patent 4,451,903. The `565 patent was subsequently removed from the case. The presiding ALJ held an evidentiary hearing from December 8 to December 19, 1997.

On March 19, 1998, the ALJ issued his final ID finding that there was no violation of section 337. He found that neither claim 1 of U.S. Letters Patent 4,511,811 ("the `811 patent"), nor claim 1 of U.S. Letters Patent 4,673,829 ("the `829 patent"),

nor claim 1 or claim 9 of U. S. Letters Patent 4,451,903 ("the `903 patent") was infringed by any product of the respondents or intervenor. He further found that the `903 patent was unenforceable because of waiver and implied license by legal estoppel, and that claims 2 through 8 of this patent are invalid for indefiniteness. He found that respondents and the intervenor had not demonstrated that any other claim at issue was invalid in view of any prior art before him, or that the `903 patent is void for failure to name a co-inventor. He found that complainant had not demonstrated that the `811 patent was entitled to an earlier date of invention than that appearing on the face of the patent. Finally, the ALJ found that there was a domestic industry with respect to all patents at issue.

On March 31, 1998, complainant Atmel filed a petition for review of the ALJ's final ID. On April 1, 1998, respondent Winbond filed a petition for review of the ALJ's ID. The other respondents and intervenor SST filed contingent petitions for review, raising issues to be considered in the event that the Commission determined to review certain of the ALJ's findings. In accordance with the Commission's directions, the parties filed their initial briefs on May 26, 1998, and their reply briefs on June 5, 1998. Complainant Atmel and respondent Winbond requested oral argument, which request is hereby denied.

Having examined the record in this investigation, including the ID, the review briefs, and the responses thereto, the Commission has determined that there is no violation of section 337. More specifically, the Commission finds that the `811 and `829 patents are invalid because of the preclusive effect of a decision of the United States District Court for the Northern District of California. The Commission also finds that the `903 patent is unenforceable for failure to name a co-inventor.

This action is taken under the authority of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337) and sections 210.42 - .45 of the Commission's Rules of Practice and Procedure (19 C.F.R. §§ 210.42 - .45).

Copies of the public version of the ID, the Commission's opinion, and all other nonconfidential documents filed in connection with this investigation are or will be 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 this matter can be obtained by contacting the

Commission's TDD terminal on 202-205-1810. General information concerning the Commission may also be obtained by accessing its Internet server *(http://www.usitc.gov)*.

By order of the Commission.[1]

Donna R. Koehnke

Donna R. Koehnke
Secretary

Issued: July 2, 1998

[1]Commissioner Miller did not participate in this investigation.

PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of	
CERTAIN EPROM, EEPROM, FLASH MEMORY, AND FLASH MICROCONTROLLER SEMICONDUCTOR DEVICES, AND PRODUCTS CONTAINING SAME	Inv. No. 337-TA-395

COMMISSION OPINION[1]

This investigation is before us for final resolution of the issues under review and, if necessary, for determinations on remedy, the public interest, and bonding. We find no violation of section 337 of the Tariff Act of 1930, and therefore need not consider the issues of remedy, the public interest, and bonding.

I. BACKGROUND

The Commission instituted this patent-based section 337 investigation on March 18, 1997,[2] based on a complaint by Atmel Corporation ("Atmel") of California. Atmel alleged that respondents Sanyo Electric Co., Ltd. ("Sanyo") of Japan, Winbond Electronics Corporation of Taiwan and Winbond Electronics North America Corporation of California (collectively "Winbond"), and Macronix International Co., Ltd. of Taiwan and Macronix, Inc. of California (collectively "Macronix") violated section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, by importing, selling for importation, and/or selling in the United States after importation certain goods infringing one or more of claim 1 of U.S. Letters Patent 4,511,811 ("the '811 patent"), claim 1 of U.S. Letters Patent 4,673,829 ("the '829 patent"), claim 1 of U.S. Letters Patent 4,794,565 ("the '565 patent"), and claims 1-9 of U.S. Letters Patent 4,451,903 ("the '903 patent"). Silicon Storage Technology, Inc. ("SST" or "intervenor") was permitted to intervene. The '565 patent was subsequently withdrawn from the case.

The '811 and '829 patents generally relate to circuitry for generating a limited current

---

[1] Commissioner Miller did not participate in this investigation.

[2] 62 *Fed. Reg.* 13706

high voltage[3] signal integral to a semiconductor chip, thereby eliminating the need for a second external power supply.[4] The '903 patent relates to auxiliary circuitry that may be added to any semiconductor chip enabling a user to identify the manufacturer and other pertinent data concerning the semiconductor chip by electrical interrogation of the semiconductor chip. The inventions disclosed in the '811, '829, and '903 patent have primary application to large scale memory chips, although they are potentially applicable to any semiconductor device.

The presiding administrative law judge ("ALJ")(Judge Paul Luckern) held an evidentiary hearing from December 8 to December 19, 1997. On March 19, 1998, the ALJ issued an initial determination ("ID") in which he concluded there was no violation of section 337. He found that neither claim 1 of the '811 patent, nor claim 1 of the '829 patent, nor claim 1 or claim 9 of the '903 patent was infringed by any product of respondents or intervenor. He further found that the '903 patent was unenforceable because of waiver and implied license by legal estoppel, and that claims 2 through 8 of this patent were invalid for indefiniteness. He found that respondents and intervenor had not demonstrated that any other claim at issue was invalid in view of any prior art before him, or that the '903 patent is void for failure to name a co-inventor. He found that Atmel had not demonstrated that the '811 patent was entitled to an earlier date of invention than that appearing on the face of the patent. Finally, the ALJ found that a domestic industry existed with respect to all the patents at issue.

The parties filed petitions for review that requested examination of virtually every finding in the ID. On March 31, 1998, complainant Atmel filed a petition for review of the claim construction and infringement issues with respect to all of the patent claims at issue, as well as certain issues pertaining to the priority date of the '811 and '829 patents and the domestic industry findings pertaining to all the patents. On April 1, 1998, respondent Winbond filed a petition for review of the finding on the inventorship of the '903 patent, and the findings as to the economic prong of the domestic industry requirement with respect to Atmel's inventory of SEEQ parts.[5] The other respondents and intervenor SST filed contingent petitions for review, raising issues of validity to be considered in the event the Commission determined to review certain of the ALJ's findings.

On May 6, 1998, the Commission notified the parties that it had determined not to review the finding of invalidity of claims 2-8 of the '903 patent, and to review the balance of the ID. The Commission requested that the parties respond to a series of questions, as well as provide written submissions on remedy, the public interest, and bonding. In accordance with the Commission's requests, the parties filed their initial briefs on May 26, 1998, and their

---

[3] This signal is on the order of 12-20 volts.

[4] Most semiconductor circuits are powered by a five volt power supply that is located external to the semiconductor chip on a printed circuit board assembly.

[5] Atmel acquired the rights to all three of the patents in issue from SEEQ Technology, Inc.("SEEQ"), the original assignee, along with a considerable parts inventory.

reply briefs on June 5, 1998. The target date for completion of this investigation was July 2, 1998.[6]

Having considered the parties' written submissions and the evidence of record, we determined to: (1) find the '811 and '829 patents invalid on the basis of issue preclusion; and (2) find the '903 patent unenforceable for failure to name an inventor.[7]

II. VIOLATION ISSUES

(A) Whether And To What Extent The Commission Should Give Preclusive Effect To The U.S. District Court Decision Regarding The '811 And '829 Patents

On April 14, 1998, after the ALJ issued his ID, the United States District Court for the Northern District of California rendered a decision ("the California decision") invalidating the '811 patent on a basis not raised before the ALJ.[8] Essentially, the district court held the '811 patent invalid because the patent specification attempts to incorporate by reference an article in an electronics industry trade magazine. Following the guidelines of the U. S. Patent and Trademark Office ("PTO"), the district court held that this attempted incorporation is improper. The court further found that the patent specification, without the article the patentee sought to incorporate by reference, did not enable a person of ordinary skill in the art to practice the '811 patent. The court therefore concluded that the '811 patent is invalid for indefiniteness under 35 U.S.C. § 112.

The court's decision is a partial summary judgment disposing of less than all the claims involved in the California lawsuit. While the court signaled its willingness to facilitate an interlocutory appeal of its invalidity ruling to the U.S. Court of Appeals for the Federal Circuit,[9] plaintiff/patentee Atmel, judging from its review briefs, apparently has no intention

---

[6] The target date was extended twice -- from June 22 to June 29 and from June 29 to July 2 -- to accommodate changes in the briefing schedule. Atmel and Winbond requested oral argument, which request was denied.

[7] With regard to the '903 patent, Chairman Bragg in her supplemental views makes further findings on the issues of claim construction, validity, enforceability, infringement, and domestic industry.

[8] *Atmel Corp. v. Information Storage Devices, Inc.*, slip op., No. C 95-1987 FMS (N.D. Cal. April 14, 1998).

[9] Order Denying Plaintiff's Motion For Leave To File Motion For Reconsideration, Etc., slip op. at 3, No. C95-1987 FMS (N.D. Cal. May 4, 1998). Under Fed. R. Civ. P. 54(b), the district court can, upon an express finding that there is no just reason for delay, direct entry of

(continued...)

of pursuing such an appeal.

In its review notice, the Commission requested briefing on what effect the California decision should have on its determinations with respect to the '811 patent, and on whether the Commission could consider the California decision with respect to the '829 patent, which has the same specification as the '811 patent. The review notice drew the parties' attention to *Lannom Mfg. Co., Inc. v. U.S. International Trade Comm'n.*, 799 F.2d 1572 (Fed. Cir. 1986), a case holding that the Commission is not authorized to consider patent validity *sua sponte* if that issue is not raised by the parties below.

Complainant Atmel and the Commission investigative attorney ("IA") argue that the California decision should have no bearing on the Commission's determinations in this case. Unless and until the ruling in the California decision becomes irrevocably final, it is asserted, the decision is not entitled to any preclusive effect under the doctrine of *res judicata*. It is also asserted that *Lannom* controls the present situation, preventing any reliance by the Commission on a theory of invalidity not raised by the parties below.

Respondents argue for preclusion on the basis of the California decision. Ignoring the procedural lack of finality of the California decision, some respondents cite to a Commission case in which the U.S. Court of Appeals for the Federal Circuit upheld the Commission's suspension of an exclusion order in view of a final judgment of invalidity issued by a U.S. district court.[10] Another respondent argues that while the California decision is not final in the sense of a final judgment having been entered, it is nevertheless final enough for purposes of issue preclusion. Respondents further argue that *Lannom* does not apply to this investigation since invalidity defenses were raised below, albeit on different theories than that considered by the district court.

The doctrine of issue preclusion benefits the legal system and litigants alike, by imposing finality upon litigation, thereby reducing the burdens arising from indefinitely prolonging a dispute. It gives certainty and repose to the litigants and conserves scarce judicial and administrative resources. The doctrine of issue preclusion does not require a formal final judgment by the other tribunal. The pertinent standard is set forth in Section 13 of the Restatement (Second) of Judgments (1982):

> [F]or purposes of issue preclusion (as distinguished from [claim preclusion]), "final judgment" includes any prior adjudication of an issue in another action

---

[9] (...continued)
final judgment as to fewer than all the claims. In order to obtain immediate appeal of such an interlocutory decision, however, the Federal Circuit would also have to agree to accept such an appeal under 28 U.S.C. § 1292(b).

[10] *SSIH Equipment S.A. v. United States Int'l Trade Comm'n*, 718 F.2d 365, 370 (Fed. Cir 1983).

that is determined to be sufficiently firm to be accorded conclusive effect.[11]

Thus, we are not bound to give preclusive effect to the California decision, but must decide whether in our best judgment we should give preclusive effect to that decision.

The comments to the Restatement elaborate on certain factors supporting issue preclusion: (1) the parties were fully heard, (2) the court supported its decision with a reasoned opinion, and (3) the decision is subject to appeal. *Id.* comment g. On the other hand, the comment states that issue preclusion should be refused if the decision in question is "tentative."

All of these Restatement factors favor issue preclusion in this case. The district court denied a motion by Atmel for reconsideration, strongly indicating that the court is quite firm in its decision and that the decision is not at all tentative. The court's reasoning is completely set forth in a fairly elaborate opinion, and the parties appear to have had the opportunity to present all arguments that might be material to the court's decision.[12] Finally, the decision is subject to appeal, either in the near term or the long term. In fact, the district court appears willing to facilitate an interlocutory appeal. Thus, if the Commission were a U.S. district court, there is little question it would defer to the district court as to the validity of the '811 patent.

It is also clear that a district court would find the '829 patent invalid on the basis of the preclusive effect of the California decision. The issue, in view of the California decision, is whether the claim at issue in the '829 patent[13] presents any new issues of validity not decided by the California decision.[14] The answer to this question is clearly no. The '811 and '829

---

[11] The Federal Circuit has repeatedly cited the Restatement (Second) of Judgments, including the section under consideration, as persuasive authority. *See, e.g., Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1135 (Fed. Cir. 1985) (adjudication of former patent claims not sufficiently final to be preclusive in litigation concerning reissue patent); *The Young Engineers v. U.S. International Trade Comm'n*, 721 F.2d 1305 (Fed. Cir. 1983)(Restatement sets forth principles to be used by the Commission in deciding claim preclusion matters).

[12] Complainant Atmel contends that it was denied a full and fair opportunity to litigate this issue in California because the district court did not fully grasp the complexity of the issue and because Atmel was denied the opportunity to take certain discovery. In our view, these issues are best addressed in the context of an appeal from the California decision, and we decline to evaluate them in this investigation.

[13] There is only one claim (claim 1) at issue in both the '811 and '829 patents.

[14] *Interconnect Planning, supra,* 774 F.2d at 1136. ("in determining the applicability of the estoppel, the first consideration is 'whether the issue of invalidity common to each action is substantially identical'")(citing *Carter-Wallace, Inc. v. United States,* 496 F.2d 535, 538 (Ct.

(continued...)

patents have the same specification. All limitations in the '811 claim at issue are present in the '829 claim, and no party suggests that any new validity issues are raised by the additional limitations in the '829 claim at issue. Thus, if the district court's finding of invalidity with respect to the '811 patent is sustained, then the '829 patent is also invalid by principles of issue preclusion.[15]

The Federal Circuit has made it clear that the Commission should invoke principles of *res judicata* in the same manner as a district court to avoid devoting time and attention to a matter that has already been resolved by another forum.[16] Furthermore, the Federal Circuit has noted that there is no legitimate basis for a finding that acts of importation are unfair if there has been a judicial determination that the importer's acts are legal.[17]

These principles favor issue preclusion in this investigation. The burdens of deciding, articulating, and defending issues of claim construction, patent validity, infringement, and domestic industry with respect to the '811 and '829 patents can be at least postponed, and perhaps avoided altogether by according preclusive effect to the California decision. Moreover, there is no present justification for disrupting international trade with an exclusion order and/or cease and desist orders when, by virtue of the California decision, there is, in effect, no '811 patent or '829 patent to be infringed. At least for the present, respondents and intervenor are entitled to some repose in view of the district court ruling.

For the foregoing reasons, we defer to the California district court and decline to find a violation of section 337 as to the '811 and '829 patents on the grounds that those patents are presumptively invalid. We therefore take no position on the issues of claim construction, patent priority, patent validity, infringement, and domestic industry with respect to the '811 and '829 patents.[18]

It is important to note that in giving preclusive effect to the California decision, we are not examining an argument or defense not raised below. We are making no evaluation of the merits of the district court's invalidity ruling. Rather, our decision is based solely on the preclusive effect to be accorded a decision by a U.S. district court. For this reason, we view

---

[14] (...continued)
Cl. 1974)).

[15] *Cf. Amgen, Inc. v. Genetics Institute, Inc.*, 98 F.3d 1328 (Fed. Cir. 1996)(issue preclusion applied to unlitigated claims where second patent had common specification with claims judged invalid in first patent).

[16] *The Young Engineers, supra,* 721 F.2d at 1315.

[17] *Id. at 1316.*

[18] *Beloit Corp. v. Valmet Oy*, 742 F.2d 1421 (Fed. Cir. 1984), *cert. denied,* 472 U.S. 1009 (1985).

the *Lannom* case as inapposite.

(B) Whether The '903 Patent Is Unenforceable For Failure To Name A Co-inventor

The patent statute provides that when an invention is made by two or more persons, they all shall apply for the patent jointly.[19] Respondents and intervenor argued below that there were one or more persons who were joint inventors along with the inventor actually named on the face of the '903 patent. As developed more fully below, such a defect would render the '903 patent unenforceable, at least temporarily.

The ALJ found that respondents/intervenor had failed to prove the existence of co-inventors by clear and convincing evidence. He noted that both the named inventor (Larry Jordan) and the engineer (Anil Gupta) who testified that he implemented Jordan's idea in silicon, attributed the essential conception of the invention to Jordan. Engineer Gupta testified that he implemented the elements of the invention of the '903 patent using well known circuit techniques, and that as a young engineer he did not have the breadth of experience to "come up with Silicon Signature."[20]

Winbond argues that named inventor Jordan's own admissions that he did not conceive of the circuit means disclosed in the patent specification preclude any possibility that he is the sole inventor of the '903 patent. Winbond points out that without adequate description of the circuit means, the patent would be invalid for vagueness. It concludes that since the Commission does not have the power to order correction of inventorship, the patent is unenforceable as a matter of law.

Atmel and the IA note that the ALJ heard the testimony of both the named inventor and the engineer who implemented the idea, both of whom attribute the invention to Mr. Jordan.

---

[19] 35 U.S.C. § 116.

[20] The relevant testimony is as follows:

> I [Anil Gupta] at that time was a young engineer with a few years -- this was my first job in nonvolatile memories. I, of course, had not the breadth to come up with silicon signature. Mr. Jordan [the named inventor] had worked in nonvolatile memory field for a couple of years with his prior employer, Intel Corporation, and it was an idea which Mr. Jordan had come up [*sic*, with] after having seen the problems faced, which I don't have details right now, but he was very proud of this idea of silicon signature, and that's why I'm very hesitant to take the credit to say -- because I was sort of the technician, you can say, implemented it into silicon.

Hearing Tr. at 1062.

They further note that there is no one in the SEEQ/Atmel organization who claims to be a joint inventor. They conclude that Winbond and the other respondents/intervenor have failed to carry their burden of proof by clear and convincing evidence.

At the time the ALJ's final ID issued, Federal Circuit cases had sent mixed signals as to what constitutes conception of an invention. One panel stated that "[conception] is complete when one of ordinary skill in the art could construct the apparatus without unduly extensive research or experimentation."[21] Another panel stated that "[conception] is the formation in the mind of the inventor, of a definite and permanent idea of the complete and *operative* invention, *as it is hereafter to be applied in practice.*"[22] The former statement appears to support the ALJ's finding on inventorship, while the latter statement appears to indicate that named inventor Jordan's contribution falls short of that which is necessary for a complete conception of an invention.

It appears from the record that the sole named inventor of the '903 patent, Larry Jordan, is a marketing person who has never designed semiconductor products in his career.[23] His testimony is to the effect that he had a general concept of Silicon Signature in block diagram form, but that he had no involvement in the physical realization of the invention.[24] He admits that he did not conceive any of the circuitry by which the elements of the patent claims at issue were realized.[25] While his concept could be and was implemented using common circuit techniques without undue experimentation, the disclosure of Jordan did not rise to the level of an "operative invention" within the meaning of *Hybritech*.

Analysis of the inventorship issue is complicated by the fact that certain claim elements of the '903 patent are written in means plus function language. A patent specification must disclose some structure with respect to means plus function elements that performs each of the claimed functions.[26] Thus, a patent would not have been granted on the basis of Jordan's disclosure alone.[27] The question is whether the person(s) who selected particular circuit

---

[21] *Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994).

[22] *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1376 (Fed. Cir. 1986), *cert. denied,* 480 U.S. 947 (1987) (emphasis added).

[23] Hearing Tr. at 3104 (12/19/97).

[24] Hearing Tr. at 3107-3108.

[25] Hearing Tr. at 3108, 3109, 3110.

[26] *Valmont Industries Inc. v. Reinke Mfg. Co.*, 983 F.2d 1039, 1042 (Fed. Cir. 1993).

[27] *See In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994)(*en banc*)(unless patent (continued...)

structures for each of the means plus function claim elements (presumably Gupta) is a co-inventor.

Since inventorship is a disfavored technical defense,[28] that must be proven by clear and convincing evidence, we are ordinarily reluctant to go behind an ALJ's findings on this issue. Since the ID issued, however, the Federal Circuit has issued an opinion that answers the question posed. In *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456 (Fed. Cir. 1998), the court dealt with the contribution of an electronics technician to an invention for a surgical instrument claimed in means plus function format. The court emphasized the *Hybritech* standard of a complete and operative invention. Of even more significance, however, is the following statement concerning inventorship in the means plus function context:

> The contributor of *any disclosed means* of a means-plus-function claim element *is a joint inventor* as to that claim, *unless* one asserting sole inventorship can show that the contribution of that means was simply a reduction to practice of the sole inventor's broader concept [citing *Sewall*].

135 F.3d at 1463 (emphasis added). We find that named inventor Jordan's involvement in the particulars of the circuit design in this investigation did not rise to the level of the sole inventor's involvement in *Sewall.*[29] Jordan neither selected nor simulated the performance of any circuit means. Therefore, we conclude that the above stated exception in *Ethicon* does not apply.

On the basis of *Ethicon*, we find that the '903 patent is unenforceable for failure to name an inventor. Since the Commission has no power to correct inventorship,[30] the '903

---

[27] (...continued)
specification discloses structure to give meaning to means plus function language, patent is invalid for indefiniteness).

[28] *Certain Double-Sided Floppy Disk Drives and Components Thereof*, Inv. No. 337-TA-215 USITC Pub. 1860 (1986).

[29] The named inventor in *Sewall* had formulated particular circuit elements and simulated their performance, leaving the putative co-inventor with nothing to do except implement the circuits in silicon.

[30] *Certain Apparatus for the Continuous Production of Copper Rod,* 206 USPQ 138, 153 (Comm'n Opinion 1979).

patent is unenforceable unless and until either the PTO or a court makes the correction.[31] No remedy based on infringement of the '903 patent can be issued unless and until inventorship has been corrected.

Issued: July 9, 1998

[31] The inventorship can be corrected if the omission occurred without deceptive intent of the co-inventor(s). 35 U.S.C. § 256 ¶1. The corrected patent will be enforceable if there is no deceptive intent on the part of any of the true inventors. *Stark v. Advanced Magnetics, Inc.*, 119 F.3d 1551, 1556 (Fed. Cir. 1997).

PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of	
CERTAIN EPROM, EEPROM, FLASH MEMORY, AND FLASH MICROCONTROLLER SEMICONDUCTOR DEVICES, AND PRODUCTS CONTAINING SAME	Inv. No. 337-TA-395

SUPPLEMENTAL VIEWS OF CHAIRMAN BRAGG

While the Commission has reached a "no violation" determination with respect to the '903 patent on the basis of a single dispositive issue, I believe it is appropriate to proceed to the other issues under review with respect to that patent. In recognizing the Commission's power to rest its determination on a single issue when it appears "inevitable and unassailable," the Federal Circuit cautioned that this practice carries a risk of duplicative effort and should be used judiciously.[32] Moreover, the court cited precedent from a predecessor court (the U.S. Court of Customs and Patent Appeals) setting forth the precept that "it would be advisable for the Commission to render a decision on all appealable issues presented to it."[33]

In view of the deference due to a determination of a federal district court, I view the risk of reversal and remand acceptable with respect to the '811 and '829 patents. Because I have no reason to believe that the inventorship of the '903 patent is not correctible, however, a discussion of the other violation issues with respect to that patent is in order and appropriate.

Therefore, I have further found as follows: (1) there is no basis in law for any contention that the '903 patent is unenforceable due to waiver and implied license by legal estoppel; (2) claim 1 and claim 9 of the '903 patent should be construed as set forth below; (3) the '903 patent is valid; (4) intervenor SST and respondents Sanyo and Winbond infringe the '903 patent, but respondent Macronix does not infringe that patent; and (5) complainant Atmel has established a domestic industry with respect to the '903 patent.

---

[32] *Beloit Corp. v. Valmet Oy,* 742 F.2d 1421, 1423 (Fed. Cir. 1984).

[33] *Id.* (quoting *Coleco Industries, Inc. v. United States International Trade Commission,* 573 F.2d 1247, 1252 (CCPA 1978)).

(A) Whether The '903 Patent Is Unenforceable Due To Waiver And/Or Implied License

The '903 patent discloses auxiliary circuitry for providing identification information that can be obtained by applying an external electrical signal to the chip. SEEQ, the original assignee of the '903 patent, referred to this identification method and associated circuitry as "Silicon Signature."

In 1981, SEEQ proposed to JEDEC,[34] a committee of the Electronic Industries Association with responsibility for setting industry standards, that the identification method disclosed in the '903 patent be adopted as a standard. During the period from 1981 to 1984, most companies in the semiconductor industry apparently expected that Silicon Signature would be adopted as an official industry standard, and began behaving as if that assumption was an accomplished fact.

In addition to SEEQ's efforts to promote use of the '903 technology, a manufacturer of PROM programming machines, Data I/O, began advocating its usage in the industry. In cooperation with SEEQ, Data I/O designed its programming machines to exploit Silicon Signature, and began encouraging other semiconductor manufacturers to incorporate it into their chips.

SEEQ's proposal to establish an industry standard was initially evaluated by a group of industry personnel that was designated as the "JC 42.3 committee" of JEDEC. This group studied the matter for a period of approximately six months. Eventually, the JC 42.3 committee recommended the adoption of Silicon Signature as a JEDEC standard. Subsequently, SEEQ sought to represent in the trade press and in its annual reports that Silicon Signature was an industry standard enjoying wide acceptance in the electronics industry. JEDEC never implemented the recommendation of the JC 42.3 committee, however, opting instead simply to establish a set of identification numbers for various manufacturers without reference to the method of implementing the identification in semiconductor products.

During the pendency of JEDEC's evaluation, SEEQ attempted to address concerns about its patent rights in the technology. SEEQ repeatedly stated its willingness to grant a royalty free license to any manufacturer.[35] In fact, after JEDEC failed to adopt Silicon Signature as a standard, seven Japanese firms acquired such licenses for modest fees between

---

[34] JEDEC is an acronym for Joint Electronics Device Council.

[35] FF 92, 93, 96, 98, 105, 112, 113, 116. A royalty free license connotes a one-time fee, as opposed to a royalty assessed on every product manufactured or sold utilizing the patented technology.

1985 and 1986.[36] In 1994 and 1995, respondent Macronix and complainant Atmel exchanged correspondence regarding a license for a one-time fee, but did not consummate a license agreement.[37] SEEQ's offer to make the '903 patent technology available for royalty free licenses was not explicitly qualified in any way until October 1983, when a letter from SEEQ's outside counsel to JEDEC referred to the offer as contingent on the acceptance of Silicon Signature as a JEDEC standard.

It is undisputed that neither SEEQ nor Atmel ever sued anyone for infringement between 1985, when the '903 patent issued, and the commencement of the present investigation in March 1997. In particular, complainant Atmel itself used the patent without license between 1985 and its acquisition of the patent from SEEQ in 1994. While SEEQ and Atmel were involved in several lawsuits during this period, none of them involved the '903 patent.

I am aware of no evidence that either respondents or intervenor heard any of SEEQ's statements before JEDEC in the first instance. Neither respondents nor intervenor points to any evidence that they later became aware of SEEQ's statements before JEDEC prior to making a business decision to incorporate the technology of the '903 patent into their respective products. In fact, there is evidence to the contrary. Intervenor SST was under the false impression that Silicon Signature was an official standard and implemented it in its products without any awareness that the technology was the subject of a patent.

The ALJ found that the totality of SEEQ's conduct in promoting usage of the '903 patent technology amounted to a unilateral, intentional waiver of the patent right. The Commission set forth review questions in an effort to determine whether there is any other legal or equitable basis upon which either respondents or intervenor may claim a right to practice the technology of the '903 patent.

I find no evidence that SEEQ's interaction with JEDEC ever rose to the level of a contractual relationship between those entities. Moreover, no one has pointed to any evidence that SEEQ's negotiations with JEDEC were structured in a way to confer any right to practice the patent, either on JEDEC members, or the industry at large existing at the time of the negotiations, much less respondents and/or intervenor.[38] Therefore, unless and until JEDEC approved Silicon Signature as an industry standard, and SEEQ formally renounced or

---

[36] FF 246, 256, 261, 269, 275, 282, 290.

[37] FF 316-340.

[38] In more recent times, standards boards in the electrical and electronics industries will not agree to consider the establishment of an industry standard covered by a patent unless the patentee agrees *a priori* to provide access to the technology on "a nondiscriminatory and reasonable basis." In this case, however, respondents/intervenor have pointed to no evidence that the negotiations between SEEQ and JEDEC were governed by any such understanding or protocol.

abrogated its patent rights in that process, the individual members of the industry were on their own insofar as obtaining rights to practice the '903 patent were concerned.[39]

I further note that the evidence does not support any contention that seeking to have patented technology adopted as an industry standard, without more, gives rise to any kind of implied license or to an estoppel precluding compensation for the use of the technology. There is undisputed evidence in this case that the Intel Corporation's microprocessor chip architecture is an industry standard, but Intel receives compensation for the use of that technology.[40]

This case is also distinguishable from cases where an implied license was found after a patentee deliberately hid the existence of a patent from a standards board in order to have its patent accepted as an industry standard.[41] In this case, there is no industry requirement that anyone employ Silicon Signature to identify their parts. Despite its widespread adoption, the use of the technology of the '903 patent by respondents/intervenor is essentially their choice. Moreover, whatever else SEEQ did before JEDEC, it certainly did not hide the existence of its patent application. SEEQ neither behaved fraudulently before JEDEC nor succeeded in its goal of having its technology accepted as a standard by the industry.

It would appear that SEEQ, during the period in which it was promoting adoption of Silicon Signature, made an offer to grant royalty free licenses to the '903 patent. The ALJ found that this offer was not contingent on establishment of an industry standard.[42] At least as an initial matter, this finding appears to be correct. Indeed, SEEQ's behavior in granting seven licenses for a nominal fee even after the JEDEC negotiations failed is consistent with this finding.

Respondents and intervenor argue that acceptance of SEEQ's offer for a royalty free

---

[39] Two of the briefs contend that the proper view of the transactions is that SEEQ contracted with the entire industry, of which they are members. In particular, SST characterizes the "offer" made by SEEQ as free usage by the industry provided that JEDEC established a roster of manufacturer identification numbers (which it did). I regard this argument as tenuous at best, and note only that there is no evidence of record that such an offer was ever made. A royalty free license is not, by definition, the equivalent of "free."

[40] Hearing Tr. 2051:25-2052:12

[41] *Cf. Stambler v. Diebold, Inc.*, 11 USPQ2d 1709 (E.D.N.Y. 1988)(implied license by equitable estoppel where patentee sat on standards board for its industry and resigned without bringing its patent to attention of board, which later adopted infringing standard); *Potter Instrument Co., Inc. v. Storage Technology Corp.*, 207 USPQ 763, 769 (E.D. Va. 1980), *aff'd.*, 641 F.2d 190 (4th Cir. 1981), *cert. denied,* 454 U.S. 832 (1981)(patentee did not disclose patent to standards board which adopted infringing standard with patentee's participation).

[42] FF 122.

license could be accomplished simply by incorporating the technology into their products. In support of this assertion, they point to a statement in the JEDEC minutes by SEEQ to the effect that it was willing to place the patent in the public domain so that users would have the right to the technology of the proposed standard without recourse to legal paperwork.[43]

My view of the offer for royalty free licenses turns on three important considerations. First, there is nothing, either in JEDEC's procedures or in SEEQ's decision to offer such licenses, that legally bound SEEQ (or Atmel) to maintain this posture forever.[44] Second, an offer for a royalty free license is not, by its own terms, an invitation to use the patented technology free of charge. Both the promotional literature distributed on SEEQ's behalf by Data I/O and the seven royalty free licenses granted to Japanese manufacturers are clear indications that SEEQ expected some remuneration for use of its patent. Thus, acceptance of SEEQ's licensing offer could be accomplished by paying a one-time fee and signing an agreement, not simply by beginning to exploit the patent. The statement on which respondents/intervenor rely, quoted above, is that SEEQ would place the '903 patent in the public domain in the future if the JEDEC standard were established, not that it had already done so. The statement does not pertain to the offer for royalty free licenses, but rather to a further step that SEEQ contemplated it might undertake in the event its proposal was accepted by JEDEC. Paperwork free access to the technology of the '903 patent was similarly contingent and in the future. Third, the offer for a royalty free license, whether contingent or not,[45] pertains only to those companies who accepted the offer, which does not include respondents/intervenor in this case. They had no knowledge of it.

Thus, I am of the view that respondents/intervenor have no contractual right to practice the '903 patent. To escape liability for infringement, I believe they must show that some equitable doctrine prevents Atmel from enforcing the '903 patent against them.

---

[43] The text of the minutes reads:

> Larry Jordan [the putative inventor of the '903 patent] reported that SEEQ would make that portion of their patent pertaining to the Electronic [*i.e.*, Silicon] Signature part of the public domain and therefore all users would have the right to the proposed standard without recourse to any legal or other paperwork.

FF 97.

[44] Indeed, SEEQ's statements near the end of negotiations with JEDEC that the offer was contingent on acceptance of Silicon Signature as a standard (FF 109, RX355, Attachment E) is a clear signal that SEEQ's licensing offer might terminate.

[45] This would be a different case if Atmel were arguing that the existing SEEQ licenses are void for failure of a condition subsequent (establishment of Silicon Signature as an industry standard) and that Atmel therefore has the right to enforce its patent against its current licensees.

My analysis of equitable doctrines begins with *A.C. Aukerman Co. v. R.L. Chaides Construction Co.*, 960 F.2d 1020 (Fed. Cir. 1992)(*en banc*). That case discusses in detail the equitable doctrines of laches and equitable estoppel in the patent context. The plaintiff in *Aukerman* had initially contacted an accused infringer and suggested that he take a license. When the accused infringer declined to take a license, however, the patentee chose to forego litigation since the accused infringer was then a minor player in the market relevant to the patent. Approximately nine years later, the patentee learned that the accused infringer's business in the patented technology had grown considerably, and filed suit for infringement. The accused infringer raised defenses of laches and equitable estoppel, and the district court dismissed the suit on the basis of those defenses.

On appeal, the Federal Circuit held that laches, arising from delay in filing suit, is a bar only with respect to damages accrued prior to suit.[46] "[M]ore is required in the overall equities than simple laches if an alleged infringer seeks to wholly bar a patentee's claim."[47] The court went on to describe the requirements for equitable estoppel, which is one of four doctrines that wholly bars enforcement of a patent. Among the requirements to establish a defense of equitable estoppel is that the accused infringer must rely on some misleading communication. In particular, the court stated that in order to prove equitable estoppel, the alleged infringer cannot be unaware of the patent.[48] It also stated that mere silence on the part of the patentee concerning infringement will not create an estoppel unless there is a clear duty to speak.[49]

The *Aukerman* case has several implications for resolution of the implied license issue in this investigation. First, all of the evidence concerning SEEQ's lack of enforcement of its rights under the '903 patent over the years is irrelevant. Without some conduct by the patentee that affirmatively misleads the infringer, the patentee's inaction concerning infringement can only serve to cut off damages retroactively. It cannot foreclose prospective relief after a complaint has been filed. Second, contrary to the arguments of respondents/intervenor, there is no basis on which an equitable estoppel can be established. Intervenor SST admits it was unaware of the patent prior to being contacted by Atmel in 1994, which, under *Aukerman*, forecloses the possibility of an equitable estoppel arising, at least with respect to that party.[50] Furthermore, in response to the Commission's review questions, neither respondents nor

---

[46] 960 F.2d at 1041.

[47] 960 F.2d at 1040.

[48] 960 F.2d 1042.

[49] 960 F.2d at 1043.

[50] In view of the analysis that follows, it is unnecessary for me to consider the implications arising from the fact that certain of the respondents act as foundries for SST.

intervenor pointed to any evidence that they were aware of any of the statements on which they now rely before deciding to incorporate Silicon Signature into their products. In fact, there is evidence that intervenor SST and respondent Macronix were unaware of those statements.[51] This fact forecloses the type of detrimental reliance that can support equitable estoppel, as contemplated by *Aukerman*. An infringer cannot detrimentally rely on a statement or representation of which it is unaware.

Neither respondents nor intervenor points to any evidence of statements or conduct on the part of SEEQ that was directed particularly to them. Instead, all rely on SEEQ's conduct toward "the industry" to support claims of equitable estoppel. Intervenor SST and respondent Winbond point specifically to the impressions of SST employees.[52] Essentially, respondents/intervenor seek to rely on a general, albeit false, impression in the industry that the Silicon Signature technology was an industry standard. I am aware of no precedent for reliance on this type of general impression that is "in the air," as opposed to specific statements by the patentee to the accused infringer. I also find no indication that the Federal Circuit is disposed to enunciate such a new principle of law, one which it seems to have avoided in the past.[53]

SST and Macronix argue that SEEQ's silence after the rejection of its proposal by JEDEC amounts to misleading conduct. Macronix additionally argues that SEEQ never withdrew its offer for royalty free licenses in a manner commensurate with the industry wide publication by which the offer was allegedly made. In view of the widespread adoption of Silicon Signature in response to SEEQ's promotion of the concept, both before JEDEC and in the marketplace, they contend that SEEQ had a duty to speak if it intended to enforce the

---

[51] Hearing Tr. at 2013:20-2014:7 (Yui); 1982:22-1983:1-1984 (Yeh); RX 363.

[52] To briefly summarize, Bing Yeh, the founder of SST had previously worked in the semiconductor industry for ten years, during which time he became aware of the widespread use of Silicon Signature, and was under the impression that JEDEC had adopted it as an industry standard. Additionally, Ping Wang, a circuit designer for SST, stated that in his experience he had never known SEEQ to assert any patent claims related to Silicon Signature and was unaware of any claims of ownership of "that standard." The ALJ characterized this testimony as establishing "that a relationship existed between SEEQ and SST, *through JEDEC*," and concluded that a license had been granted within that relationship. (ID at 39-40)(emphasis added). Winbond, as a foundry for SST, argues that it should get the benefit of any implied license by equitable estoppel obtained by SST.

[53] *See Wang Laboratories, Inc. v. Mitsubishi Electronics,* 103 F.3d at 1575, 1581-1582 (Fed. Cir. 1997) (court did not rely, as basis for equitable estoppel, on fact that Wang, in persuading JEDEC to adopt its design as industry standard, falsely stated it was not seeking patent rights and no license agreements would be involved; court instead focused on bilateral relationship between Wang and accused infringer).

patent after the rejection of its proposal for a standard.

The answer to these arguments is twofold. First, SEEQ did indicate, near the conclusion of its negotiations with JEDEC, that its offer of royalty free licenses was contingent on acceptance of Silicon Signature as an industry standard.[54] While these statements might not be effective against anyone that had relied on its unconditional statements up to that point, it is fair warning to anyone viewing the totality of the record years later. SEEQ's final statements concerning the contingent nature of its offer are as public and accessible as some of those by which respondents/intervenor seek to find a waiver and/or estoppel. Second, no silence of SEEQ/Atmel was a factor in misleading respondents or intervenor, one of which was unaware of the very existence of the patent at the time it was making a business decision to practice the patented technology. If there was some duty to speak further, respondents/intervenor do not have standing to complain about SEEQ/Atmel's failure to perform that duty. That some of them were misinformed as to the existence of an industry standard is not the result of misleading conduct on the part of SEEQ/Atmel.

More recently, the Federal Circuit, surveying cases and commentators, has identified four "avenues to an implied license." *Wang Laboratories, Inc. v. Mitsubishi Electronics*, 103 F.3d 1571, 1580 (Fed. Cir.), *cert. denied*, 118 S. Ct. 69 (1997). None of the cases from which these four avenues were derived, however, involve anything other than bilateral transactions between the patentee and the putative licensee.[55]

So far as the record discloses, respondents/intervenor did not even exist at the time the negotiations with JEDEC occurred.[56] Furthermore, neither respondents nor intervenor points to any evidence of record that they reviewed or were even aware of the statements made by SEEQ before JEDEC. The only conduct of the patentee toward either respondents or intervenor is eleventh-hour negotiations for a license under the patent.[57] Thus, there does not appear to be any conduct toward either respondents or intervenor upon which an implied license could be grounded. This fact presents a fundamental problem in finding any implied license of the '903 patent rights with respect to these parties.

The ALJ found that intervenor SST had an implied license by legal estoppel. According to *Wang*, a patentee is legally estopped from enforcing its patent if it licenses or assigns a patent, receives consideration, and thereafter seeks to derogate from the right

---

[54] FF 112, 116.

[55] This includes the so-called "doctrine of acquiescence," which Macronix raises in its review brief. Macronix seeks to extend this doctrine far beyond the rather narrow set of cases from which it was derived.

[56] FF 315, 354. I also take administrative notice that the Internet website of respondent Winbond states that it was not established until 1987.

[57] FF 316-340.

granted.[58] In this case, there was no grant of a license with respect to any of the respondents or intervenor SST.[59] Furthermore, I do not believe that the widespread *ad hoc* adoption of the technology by the industry after initiation of negotiations between SEEQ and JEDEC can serve as consideration. JEDEC had no control over how rapidly the technology might be accepted in the industry during the pendency of its review of SEEQ's proposal. The parties could not possibly have bargained for such an outcome; it is a fortuity.[60] Therefore, the facts of this case do not support a finding of legal estoppel.

In addition to analyzing established doctrines of implied license, the ALJ applied contract principles of unilateral waiver. Except for a statutory procedure that was not employed in this case,[61] there appears to be no law providing that a patentee's unilateral conduct can effectively dedicate its patent to the public. No party has cited any case involving a waiver of a patent right, as that term was used by the ALJ, and I know of none. Rather, the case law speaks uniformly in terms of implied license.

Application of the facts in this investigation to the ALJ's waiver analysis is also problematic. The next section of *Corpus Juris Secundum,* which is the authority cited by the ALJ, states that waiver by implication is not favored,[62] and that such waiver will not be inferred from doubtful or ambiguous facts. Most of SEEQ's statements before JEDEC state a

---

[58] 103 F.3d at 1581.

[59] If Atmel sought to enforce its patent against one of its seven licensees, claiming a failure of a condition subsequent (obtaining an official JEDEC standard), those facts might present a case of legal estoppel.

[60] The ALJ, following a jury instruction recited in *Wang,* perceived a further requirement that there be an existing relationship between SEEQ and SST. He found that there was such a relationship *through JEDEC.* I do not read *Wang* to set forth such a requirement. Examination of the subordinate findings supporting the ALJ's conclusion, however, reveals only that the founder of SST, Bing Yeh, had a mistaken impression that Silicon Signature was an industry standard. This impression was gathered not from any familiarity with or review of the proceedings before JEDEC, but from his own experience with a former employer. (FF 357-359). Assuming such a bilateral relationship is a requirement, the facts of this case also do not support the ALJ's conclusion. There is no relationship between SEEQ/Atmel and SST, through JEDEC or otherwise.

[61] 35 U.S.C. § 253 provides that a patentee may formally dedicate a patent to the public by filing appropriate papers with the PTO.

[62] C.J.S. § 68.

willingness on the part of the patentee to grant "a royalty free license."[63] By definition, a royalty free license does not imply an invitation to use the technology free of charge; the patentee has reserved the right to charge a one-time license fee. Furthermore, a license is a bilateral agreement that must be effected between the patentee and the licensee. It unclear to me -- even assuming that SEEQ's statements were not contingent on JEDEC acceptance of the patentee's proposal -- how these statements may be taken to signal an intention by SEEQ to give up the patent rights entirely.[64]

A more fundamental difficulty with the ALJ's waiver concept is the strong implication of leading Supreme Court and Federal Circuit patent cases that the concept of implied unilateral waiver does not exist. An early case of the United States Supreme Court, cited by the ALJ, sets forth an important qualification that permeates all implied license analyses, which is the only basis in law for derogation of a patent right:

> [implied license requires] language used by the owner of the patent, or any conduct on his part *exhibited to another* from which *that other* may properly infer that the owner consents to his use of the patent ... *upon which the other acts*, constitutes a license and a defense to an action for a tort.

DeForest v. United States, 273 U.S. 236, 241 (1927)(emphasis added). It is evident from this passage that licenses are not granted unilaterally to the public at large, but bilaterally to specific entities based on the patentee's conduct toward that particular entity.

Taken together, the *Aukerman* and *Wang* cases also seem to foreclose the possibility of unilateral waiver of the type found by the ALJ. The principle set forth in *Aukerman* is that mere neglect of one's patent rights does not result in a bar to prospective relief, absent some

---

[63] I am aware that at one point in the proceedings before JEDEC a representative of SEEQ is reported to have said words to the effect that the patent "was in the public domain." (FF 105). Two things should be noted about this alleged statement. First, assuming it was made, it evidently did not satisfy the concerns of those present on the JC 42.3 committee of JEDEC. The negotiations eventually broke down because the status of the patent rights were not sufficiently clear to the JC 42.3 committee members. (FF103). Second, the statement would have effect only as to those who were aware of it. *See generally* Restatement (Second) of Agency §§ 8, 27 & cmt. b (1958)(apparent authority of an agent to bind principal operative only as to those who learn of the representation).

[64] Even assuming that a waiver of the patentee's right to sue for infringement in a U.S. district court occurred, there is no evidence that the patentee's right to file a section 337 complaint against importation of infringing devices was ever discussed or contemplated. Actions under section 337 are separate and distinct from actions for patent infringement. 19 U.S.C. § 1337(a)(1).

misleading and hence inequitable conduct directed specifically to the accused infringer on which the infringer is entitled to rely.[65] That reliance is simply not present with respect to respondents/intervenor in this investigation. While the *Wang* case describes ways other than equitable estoppel to obtain an implied license, all of them are grounded on conduct by the patentee directed specifically toward the accused infringer. In the absence of such conduct, Atmel is not barred from altering previous enforcement practice and asserting its patent rights prospectively against these respondents and intervenor.

(B) The Appropriate Claim Construction With Respect To The '903 Patent

(1) Primary Circuit

The '903 patent presents an instance where the patentee explicitly defined one of the critical disputed claim terms, both generally and specifically, with respect to a non-volatile memory chip. In the "Summary of Invention" section of the patent, the patentee stated that memory devices containing the identification information "are placed adjacent that portion of the chip which performs the primary function of that circuit." Col. 1, lines 66-69. This language generally indicates that the claim term "primary circuit" means the circuitry that performs the primary task for which the semiconductor chip is designed, and excludes the auxiliary circuitry that is added to furnish the identification capability.

With respect to a non-volatile memory chip, the specification even more specifically defines the primary circuit:

> It is necessary that the data stored in the product information array 30 not interfere with the normal operation of the primary circuit on the chip, *i.e. the memory array 12 and associated decoders, gates and buffers.*

col. 3, lines 34-37 (emphasis added). This passage demonstrates that the patentee included everything but the product information array and the access circuitry in the definition of "primary circuit," and I find that this explicit definition of the patentee controls over any other meaning that might be attached to the claim term.[66]

---

[65] The facts of this case suggest an attempt by respondents/intervenor to take what is essentially a laches defense and bootstrap it into prospective relief, which *Aukerman* holds to be impossible. The only remedies available under section 337, of course, are exclusion orders and cease and desist orders, both of which are forms of prospective relief.

[66] *Boehringer Ingelheim Animal Health, Inc. v. Schering-Plough Corp.*, 984 F. Supp. 239, 246 (D.N.J. 1997)("where the patentee's meaning is clear, the court must adopt the special

(continued...)

In addressing this passage, however, the ALJ found that, from a grammatical standpoint, at least one comma is missing from the passage, *viz.*, the comma that should have been inserted after the term "i.e." He went on to find that a second comma should be inserted after the term "memory array 12," which would render the passage consistent with his interpretation that the primary circuit includes only the main memory array. Insertion of this missing comma creates two equally plausible interpretations of the claim term, he reasoned, and it was, therefore, appropriate to select the narrower interpretation.[67] (ID at 75).

I disagree with this analysis. That one comma may be missing in contradiction of some canon of punctuation does not, in my view, warrant inserting another comma in a different place, thereby changing the substantive meaning of a passage -- particularly in a situation where the patentee's meaning is clear.[68]

The ALJ's reasoning seems to have been based on the precept that, ordinarily, no circuit component can be part of two or more claim elements. Citing *In re Kelley*, 305 F.2d 909, 914 (CCPA 1962), the ALJ stated that a single structural element can be included in two separate claim elements only if it performs two separate functions. Having found that the specification of the '903 patent included the decoders in the access means, the ALJ found that nothing in the specification delineated how the access means could perform the claimed function of preventing access to the primary circuit if portions of the access means are included in the primary circuit. (ID at 71). The foregoing reasoning, however, contains both an error of law and an error of fact.

The *Kelley* case is an incomplete statement of the law. The dual function exception to the double recitation rule is but one of several exceptions. A more complete statement of the law of double recitation is found in *Palmer v. United States*, 423 F.2d 316, 319 (Ct. Cl.), *cert. denied,* 400 U.S. 951 (1970)(emphasis added):

> double recitation of elements of inventions does not necessarily render a claim vague and indefinite, *particularly if the claim is drafted in terms of means clauses* under 35 U.S.C. §112, *or* if an element performs more than one function *or* overlapping functions.

---

[66] (...continued)
definition of the term.")(citing *Vitronics, supra,* 90 F.3d at 1582 ("a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history.")).

[67] *Athletic Alternatives v. Prince Mfg. Co.*, 73 F.3d 1573, 1581 (Fed. Cir. 1996); *Ethicon Endo-surgery, Inc. v. U.S. Surgical Corp.*, 93 F.3d 1572, 1581 (Fed. Cir. 1996).

[68] *See, e.g., Becton Dickinson and Co. v. C.R. Bard, Inc.*, 922 F.2d 792, 799 n.6 (Fed. Cir. 1990)("Nothing in any precedent permits judicial redrafting of claims.")

This passage suggests that inclusion of components[69] in two or more claim elements is not only permissible in the context of means plus function claim elements, it is to be expected.

Furthermore, the ALJ's conclusion that the specification placed the decoders in the access means appears to have been based on a misreading of the patent. The portion of the patent specification quoted by the ALJ reads as follows:

> The *access to the memory* referred to above is provided through column decoder 14, row decoder 16 and column address gating 18, with the output from the array being presented via an output buffer 20.

Col. 2, lines 62-65 (emphasis added). In quoting this passage in FF 463, however, the ALJ inadvertently inserted the word "means" after the word "access," thereby changing the meaning of the passage. In the quoted passage, I find that the drafter of the '903 patent was merely describing the signal flow to access a particular location in memory. The passage has nothing to do with the *access means*, which is the circuitry that performs the claimed function of receiving external signals and selecting either the primary circuit or the product information array.

Thus, the ALJ's construction of the term "primary circuit" cannot be sustained. I conclude that the term "primary circuit" means any circuitry present in an integrated circuit chip before the addition of the rest of the circuitry that implements the invention.

(2) Product Information Array

The critical claim term to be construed in this element is the word "adjacent" in "product information array disposed on the semiconductor chip adjacent said primary circuit." The ALJ, referring to the preferred embodiment, found that it requires the product information array to be an extra row in the main memory matrix. I believe this finding to be an erroneous conclusion of law because it ignores the patentee's controlling definition of the primary circuit,[70] and it imports limitations into the claim from the preferred embodiment, which is

---

[69] In some cases, courts and parties use the term "element" to describe a component, which may have several elements or limitations in a patent law sense. "'Element" may be used to mean a single limitation, but it has also been used to mean a series of limitations which, taken together, make up a component of the claimed invention." *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1259 (Fed. Cir. 1989).

[70] The primary circuit is all the circuitry making up the memory device, not merely the memory matrix. Therefore, requiring the product information array to be adjacent a particular component of the primary circuit is overly restrictive.

generally impermissible.[71]

As the ALJ noted, the ordinary and accustomed meaning of "adjacent" is "close to; lying next to; lying near; adjoining." (ID at 78). All of these definitions indicate that the primary circuit and the product information array must be approximately contiguous. There is no suggestion in any of the meanings of this term that the two circuits may overlap. Use of the term "not interspersed" in the claim construction proposed in the review notice was intended to convey the notion that the product information array may not be simultaneously within and without the primary circuit.

It is for this reason that the Commission declined to review the ALJ's finding that claims 2-8 of the '903 patent are invalid. Claim 2, from which claims 3-8 depend, requires that the primary circuit be redefined to include only the memory matrix, which contradicts the explicit definition set forth in the specification. Furthermore, claim 2 requires that the product information array be *within* the primary circuit as properly defined, while claim 1 requires it to be adjacent or *without* the primary circuit. These claims are therefore fatally indefinite.

Upon review of the briefs, I am persuaded that the IA is correct that the word "interspersed" carries unintended connotations suggesting that the product information array needs to be broken up in order to be outside the meaning of the claim term. Clearly, a product information array could be a unified array and yet be placed within the primary circuit, which would violate the clear meaning of the term "adjacent." I would therefore modify the claim construction set forth in the notice of review by substituting the phrase "not overlapping" for "not interspersed" in order to more closely reflect the intended meaning of the term "adjacent." I interpret the term "adjacent" to mean that the memory devices necessary to contain the claimed product information are fabricated on the same integrated circuit chip as the primary circuit, lying near or next to the primary circuit, but not overlapping with the primary circuit.

Without citation to the specification or any other authority, Atmel argues that "adjacent" merely requires "that the product information array as a whole need only be 'near' some circuitry that is included in the primary circuit." (Atmel Br. at 173). It also argues that "adjacent" should be interpreted to mean "electrically near."[72] I disagree with these proffered interpretations. There is no evidence that the meaning of the term "adjacent" may be expanded in this manner; indeed, Atmel's suggestion seems to contradict the plain meaning of the term. If the claim drafter's intent was to include all arrangements near any portion of the primary circuit, he could and should have written "product information array adjacent the primary

---

[71] *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 867 (Fed. Cir. 1985). *See also American Permahedge, Inc. v. Barcana, Inc.*, 105 F.3d 1441 (Fed. Cir. 1997); *Electro Medical Systems v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054-55 (Fed. Cir. 1994); *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 987 (Fed. Cir. 1988).

[72] Atmel points to expert testimony that a circuit designer regards any location that adds an inordinate amount of capacitance to the output lines as being non-adjacent.

circuit *or any portion thereof.*" I also disagree with Atmel's definition based on the capacitance of the output line. The ALJ found that "adjacent" is not a term of art.[73]

(3) Access Means

Since this element is drafted in means plus function form, special rules of interpretation must be observed. At this stage of the analysis, it is necessary to identify, and if necessary, to interpret the function identified in the claim element. Comparison of the particular means disclosed in the specification with that present in an accused device to determine if the structures are equivalent is part of the infringement analysis to follow.[74]

"To meet a means-plus-function limitation literally, an accused device must (1) perform the *identical function claimed* for the means element, and (2) perform that function using the structure disclosed in the specification *or an equivalent structure* [citations omitted]."[75] Two things are evident from the *Intel* case. First, an infringement analysis in a means plus function context is a two step inquiry, in which the threshold question is whether the identical claimed function is performed in the accused device. The Federal Circuit has repeatedly employed this two pronged analysis.[76] Second, the function(s) that must be performed identically are defined by the claim language.

It follows that "*the first step* in interpretation of the [means plus function] claim is determination of the meaning of *the words used to describe the claimed function*, if such meaning is in dispute."[77] For this reason, the Commission first asked the parties to assume a

---

[73] FF 491.

[74] Several of the briefs erroneously suggest that the construction of certain disputed terms set forth in the review questions somehow disregards the structural analysis demanded by 35 U.S.C. § 112 ¶6. The review questions were structured to follow the requirements of section 112 ¶6, by addressing the issues in the order that is implicit in the statute and that the Federal Circuit has explicitly instructed us to follow.

[75] *Intel Corp. v. U.S. International Trade Commission*, 946 F.2d 821, 841 (Fed. Cir. 1991)(emphasis added).

[76] *See, e.g., Serrano v. Telular Corp.*, 111 F.3d 1578, 1582-83 (Fed. Cir. 1997)(more recent application).

[77] *Multiform Dessicants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1479 (Fed. Cir. 1998)(emphasis added); *See also Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.*, 1998 WL 239335 at *3 (Fed. Cir. 1998)("determination of the claimed function [is] a matter of construction of the specific terms in the claim"); *Valmont Industries, Inc. v. Reinke*

(continued...)

meaning for certain disputed terms critical to defining the claimed function. The Commission then asked the parties to analyze their accused devices, first from the standpoint of whether the identical function is performed, and second from the standpoint of whether the particular means employed is at least an equivalent of that disclosed in the patent specification.[78]

In this instance, the access means element claims three functions: (1) receiving a first signal that causes the access means to select the primary circuit, (2) receiving a second signal by means of a logic means that causes the access means to select the product information array, and (3) "preventing access" to the primary circuit while the product information array is selected. These claimed functions define the threshold inquiry of the infringement analysis.

Both Atmel and the IA correctly point out that defining first and second signals as including zero or the absence of any input sweeps too broadly. This overbreadth creates validity problems, which should be avoided in claim construction.[79]

The '903 patent teaches an overvoltage detection circuit that selects the output of either the product information array or the primary circuit, depending on whether a signal greater than the ordinary range of the power supply circuit is received. Therefore, the term "first and second signals" must be interpreted to require that one of the signals be in excess of the ordinary range of the power supply voltage of the semiconductor chip.

For a proper understanding of the third claimed function, one must interpret the term "preventing access." Some of the briefs argued that access to the primary circuit is not prevented in one circuit or another if it is possible to trace an electrical signal from any other claimed element into the primary circuit. It is important to remember, however, that the purpose of the invention is to enable a user to read either the data in the main memory or the product identification information by electrical interrogation of the integrated circuit chip. Allowing the information from both circuits to flow to the output pins at the same time would, at a minimum, yield unintelligible information, and perhaps even destroy the internal circuit devices.

In view of the foregoing facts, the patent drafter could not have intended the phrase "preventing access to said primary circuit" as setting up a barrier around the primary circuit across which no electrons from any other claimed element can penetrate. Rather, the access that is prevented is external access to the data contained within the memory matrix.

---

[77] (...continued)
Mfg. Co., Inc., 983 F.2d 1039, 1042 (Fed. Cir. 1993)("The accused device must also perform the identical function *as specified in the claims.*")(emphasis added).

[78] This sequence is established in the questions dealing with the '811 and '829 patents, which are a matched triplet, and is implicit in the questions dealing with the '903 patent, which simply inquire about infringement.

[79] *See, e.g., Carman Industries, Inc. v. Wahl*, 724 F.2d 932, 937 n.5 (Fed. Cir. 1983)(claims should be construed, if possible, so as to sustain their validity).

In order to suppress the output of the primary circuit in this manner, either a high or low logic signal must be received by a component of the primary circuit, typically a logic gate whose function is to suppress access to output leads. Thus, one can always trace some signal from the logic means into the interior of the primary circuit. That signal may even proceed through intermediate components of the primary circuit, such as logic gates and decoders, before reaching the internal component that suppresses the output of the memory array. Arguments that such "access" to the primary circuit negates infringement are inconsistent with a proper understanding of the claimed function of suppressing the output of the primary circuit.

(4) Output Means

The claim language speaks in terms of "providing signals *representative of* the information stored,"(emphasis added), which suggests some transformation occurs in the stored information. In view of this language, I believe the term "output means" should be interpreted to include only the output drive circuitry that transforms the signals constituting the stored information into a form suitable for interfacing with circuits external to the chip.

Some of the briefs argue as though the output means includes every component through which the output data signals pass as they proceed from the product information array to the output pins. Such arguments lose sight of the words used to describe the claimed function of providing representative signals. *See Chiuminatta, supra*, 1998 WL 239335 at *3 (structural aspects not related to recited function not part of claimed means).

(C) Whether The '903 Patent Is Valid Under The Above-Described Claim Interpretation

Several briefs argue that if the '903 patent is interpreted as set forth in the review notice, it is invalid by anticipation based on three patents: U.S. Letters Patent 4,055,802 to Panousis ("the Panousis patent"), U.S. Letters Patent 4,268,911 to Bell ("the Bell patent"), and U.S. Letters Patent 4,344,155 to Mollier ("the Mollier patent"). Winbond additionally argues that the '903 patent would be invalid as obvious in light of a combination of the Panousis patent, either U.S. Letters Patent 4,250,570 to Tsang or U.S. Letters Patent 3,753,244 to Sumilas, and the [[ ]].

(1) The Panousis Patent

The Panousis patent discloses two methods of obtaining identification information from a ROM chip. The first method is simply to place identification information in a row of memory and read it out with conventional addressing techniques. The second method uses transistors connected between the input address leads and ground. When the power supply leads are grounded, a negative voltage may be applied to the address leads and either one or two diode drops may be read by means of external resistors in a voltage divider network, or by

means of an external voltmeter.

Neither of the Panousis methods anticipates the '903 patent under the Commission's claim construction, for several reasons. First, without a circuit layout diagram, which is not disclosed in the Panousis patent, it is impossible to assess the adjacency relationship between the putative information array and the primary circuit. Second, in the transistor configuration, there is no output means that furnishes a representative signal capable of driving any logic device, as required by the correct claim construction. Indeed, one cannot even read the output of the transistor array without external circuitry, and such voltage as there is on the input address pins is not a 5 volt logic signal employed by the chip in normal operation. Furthermore, the diode networks have very little current drive capability -- certainly not enough to match the output drive specifications of the ROM chip, as required by the Commission's claim construction. Third, there is no access means including logic circuit means as taught by the '903 patent in either method disclosed in Panousis. Even assuming that the diode and voltage divider network could somehow be considered a logic circuit, it could not be considered an equivalent structure to the logic gates employed in the '903 patent. In the other method taught by Panousis, there is no logic circuit making any decision as to whether to access the information array or the primary circuit. Rather, the information is accessed through the address pins, like any other location in memory.

(2) The Bell and Mollier Patents

If neither the first nor the second input signal referred to in the '903 patent claims were required to exceed the normal power supply voltage, then the IA might be correct that both the Bell and Mollier patents anticipate those claims as construed in the review notice.[80] What most clearly differentiates the '903 patent from the Bell and Mollier references is the high voltage detection circuit disclosed in the '903 patent. There is no high voltage detection circuit or its equivalent in Bell or Mollier. Therefore, there is no anticipation of the '903 patent by Bell or Mollier under the correct claim construction, which requires that one of the signals received by the access means employ a voltage in excess of normal power supply voltage.

Winbond's obviousness analysis based on a combination of several references fails because it is impermissible to combine references without some teaching, motivation, or suggestion in the references themselves to make the combination.[81] Winbond points to no such

---

[80] Again, however, there is no circuit layout in Bell or Mollier to allow us to determine the adjacency relationship between the primary circuit and the product information array.

[81] *In re Gorman,* 933 F.2d 982, 986 (Fed. Cir. 1991) (and cases cited therein). *See also Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir.), *cert. denied,* 498 U.S. 920 (1990) (insufficient that prior art disclosed components of patented device either

(continued...)

teaching, motivation, or suggestion. It simply employs hindsight to argue that the combination could have been made.

(3) Conclusion

I conclude that the '903 patent, as interpreted according to the claim construction described above, is valid. None of the prior art references cited in the briefs anticipates the invention, and no combination of those references renders it obvious.

(D) Whether The Accused Devices Infringe The '903 Patent

SST does not contest infringement. It does not appear on the record that SST itself manufactures any of the accused devices.

Sanyo contends before the Commission that its circuits do not infringe the '903 patent claims at issue as interpreted by the Commission, and that Atmel presented no evidence of the layout of any of its devices. Sanyo also correctly asserts that its expert witness never admitted that its circuit layouts are identical to those of SST's devices.

In my view, Sanyo is precluded from raising these arguments at this juncture, however, by reason of the ALJ's groundrules under which the trial was conducted below. Judge Luckern's Rule 8(d) reads as follows (emphasis in the original):

> [Each pre-hearing brief shall contain a] statement of the issues to be considered at the hearing that sets forth *with particularity* a party's contentions on each of the proposed issues, including citations to legal authorities in support thereof. Any contention not set forth in detail as required herein shall be deemed abandoned, or withdrawn, except for contentions of which a party is not aware and could not be aware in the exercise of reasonable diligence at the time of filing the pre-hearing statements. Pursuant to this requirement, each of the parties *and the staff* shall take a position on the issues it is asserting no later than the filing of its prehearing statement.

Examination of Sanyo's pre-hearing brief reveals that the only statement contained therein relating to infringement is a statement attempting to incorporate by reference the other respondents' positions on infringement. Such reliance by incorporation of other parties'

---

[81] (...continued)
separately or used in other combinations; must be teaching, suggestion, or incentive to make combination made by inventor).

positions hardly constitutes setting forth an issue "with particularity."[82] Moreover, it is difficult to see how Sanyo can simply adopt other respondents' defenses to infringement if Sanyo's accused devices are different from the other respondents' accused devices, as Sanyo now asserts. While Atmel normally bears the burden of proof with respect to infringement, the ALJ's groundrule establishes that this burden accrues only with respect to issues set forth with particularity in the pre-hearing briefs.

The ALJ's groundrule is a salutary means for focusing the issues for trial, and for encouraging respondents to think through their arguments and formulate them with particularity before trial. This is especially true with respect to respondent-specific defenses like infringement. I therefore conclude that Sanyo has waived any right to contest infringement.

The accused Winbond devices store the product information [[ ]][83] [[ ]][84] [[ ]] Contrary to Winbond's assertions, there is evidence that Winbond's devices contain circuits that are at least equivalent to the circuits of the '903 patent for the access means and the output means.[85] Since this evidence is essentially unrebutted,[86] I find that Winbond infringes the '903 patent.

It is clear from the layout drawings of the accused Macronix devices,[87] however, that the memory devices constituting the product information array [[ ]] For this reason, I find that Macronix does not infringe the '903 patent.

---

[82] Sanyo should not be heard to argue that it could not have anticipated the Commission's claim construction, and thus should be excused from the effect of the ALJ's groundrule. The very claim language in this case makes it obvious that the circuit layouts of the accused devices would be an issue, regardless of the construction of particular claim terms.

[83] Referring to a Sanyo document, [[ ]]

[84] RPX 17 and RPX 18.

[85] CX50; CX86; CX127 at 1-15.

[86] Winbond's comments in its reply brief are addressed to the ALJ's claim construction, not the proposed claim construction of the review notice.

[87] RX230, RX416, and RPX58B

(E) Whether Atmel Has Established A Domestic Industry With Respect To The '903 Patent

Section 337 requires, as a condition of relief, that a domestic industry exists that exploits the patent at issue.[88] Satisfying any of three statutory criteria establishes the requisite domestic industry.[89]

The domestic industry requirement is written in the present tense, and therefore requires that the domestic industry either currently exist or be in the process of being established. This requirement is jurisdictional. The date for determining whether the industry exists is the filing date of the complaint.[90]

The domestic industry requirement of section 337 has two prongs: the *technical prong*,

---

[88] The pertinent statutory language is as follows:

> (2) [The prohibitions of the statute] apply only if an industry in the United States, relating to the articles protected by the patent, copyright, [registered] trademark, or mask work concerned, exists or is in the process of being established.
>
> (3) For purposes of paragraph (2), an 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, copyright, trademark, or mask work 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.A. § 1337(a)2-3 (West 1998 Supp.).

[89] *Certain Integrated Circuit Telecommunications Chips and Products Containing Same, Including Dialing Apparatus*, Inv. No. 337-TA-337, USITC Pub. 2670, Initial Determination at 94 (Aug. 1993).

[90] *Texas Instruments v. United States International Trade Commission*, 988 F.2d 1165, 1181 (Fed. Cir. 1993); *Bally/Midway Mfg. Co. v. United States International Trade Commission*, 714 F.2d 1117, 1121 (Fed. Cir. 1983).

and the *economic prong*. The former requirement is that the patent claims cover the articles of manufacture relied on to establish the domestic industry, i.e., that the complainant be practicing its own patent(s). The latter requirement is that one or more of the economic activities specified in section 337(a)(3)(A)-(C) be in place with respect to the articles identified by the technical prong.

The ALJ's finding that the Atmel AT29 parts practice the '903 patent[91] is sufficient to satisfy the domestic industry requirement with respect to that patent. This finding is not challenged in any of the review petitions.

The ALJ further found, with respect to the '903 patent, that the technical prong of the domestic industry requirement is satisfied only by the Atmel AT29 parts. This conclusion is apparently based on the fact that [[ ]] in the AT27 and AT49 parts.[92] Given his construction of the term [[ ]] placed the AT27 and AT49 parts outside the coverage of the '903 claims.

While the IA is correct that the memory devices in the AT27 and AT49 parts are [[ ]][93]

I also believe that there is sufficient evidence that these parts contain the other elements of the '903 patent. Explaining various schematics, Atmel's expert testified that all of the circuit means are present in these devices, and that they are at least equivalent to the corresponding means disclosed in the '903 patent.[94] This evidence is not seriously contested by respondents and intervenor, who merely characterize it as "insufficient."

I therefore find that the AT27 and AT49 parts also practice the '903 patent. This finding does not alter the ALJ's ultimate conclusion that Atmel has established a domestic industry; it only provides additional support for that conclusion.

Issued: July 9, 1998

---

[91] FF 760-764.

[92] FF 761, 762.

[93] *See* CX139-CX144.

[94] *See* CX126 at 8-44.

STATEMENT OF COMMISSIONER CAROL T. CRAWFORD

ISSUED ON 9/28/98

UNITED STATES INTERNATIONAL TRADE COMMISSION

In the Matter of	)	
	)	
CERTAIN EPROM, EEPROM, FLASH MEMORY, AND FLASH MICROCONTROLLER SEMICONDUCTOR DEVICES, AND PRODUCTS CONTAINING SAME	)	**Inv. No. 337-TA-395**

STATEMENT OF COMMISSIONER CAROL T. CRAWFORD

The Commission issued the confidential version of its opinion in the above-captioned section 337 investigation on July 9, 1998. In that opinion, I joined with Chairman Bragg in finding, *inter alia*, that complainant Atmel Corporation's '903 patent was unenforceable for failure to name an inventor. That finding had the effect of reversing the ruling of the presiding administrative law judge, the Honorable Paul J. Luckern, in his final initial determination ("ID") that the '903 patent was not unenforceable for failure to name an inventor.

The Commission's opinion contained the following passage at page 13 concerning the inventorship issue:

> Since inventorship is a disfavored technical defense, [footnote omitted] that must be proven by clear and convincing evidence, we are ordinarily reluctant to go behind an ALJ's findings on this issue. Since the ID issued, however, the Federal Circuit has issued an opinion that answers the question posed [citing Ethicon, Inc. v. United States Surgical Corp., 135 F.3d 1456 (Fed. Cir. 1998)].

This passage was drafted by the Commission's Office of the General Counsel, and I have since learned that it is erroneous. The Ethicon case was in fact decided by the Federal Circuit prior to

issuance of the administrative law judge's ID. Thus the administrative law judge was able to consider Ethicon in making his decision, and in fact cited to Ethicon several times in his ID.

In view of this error by the Office of the General Counsel, and given the high degree of deference that I strongly believe should be accorded to the conclusions of an administrative law judge, I would reverse my vote on the inventorship issue were I now to decide the issue. Moreover, my vote on this issue was outcome determinative. Therefore the Commission decision would have been different had the General Counsel provided me accurate information. Because the parties appear to have taken action in response to the Commission's determination, I regard it as my responsibility to inform them of what I consider to be an incorrect conclusion regarding the ID. Accordingly, I am instructing the Commission's Secretary to serve a copy of this statement on counsel for each of the parties in this investigation.

Issued: September 28, 1998

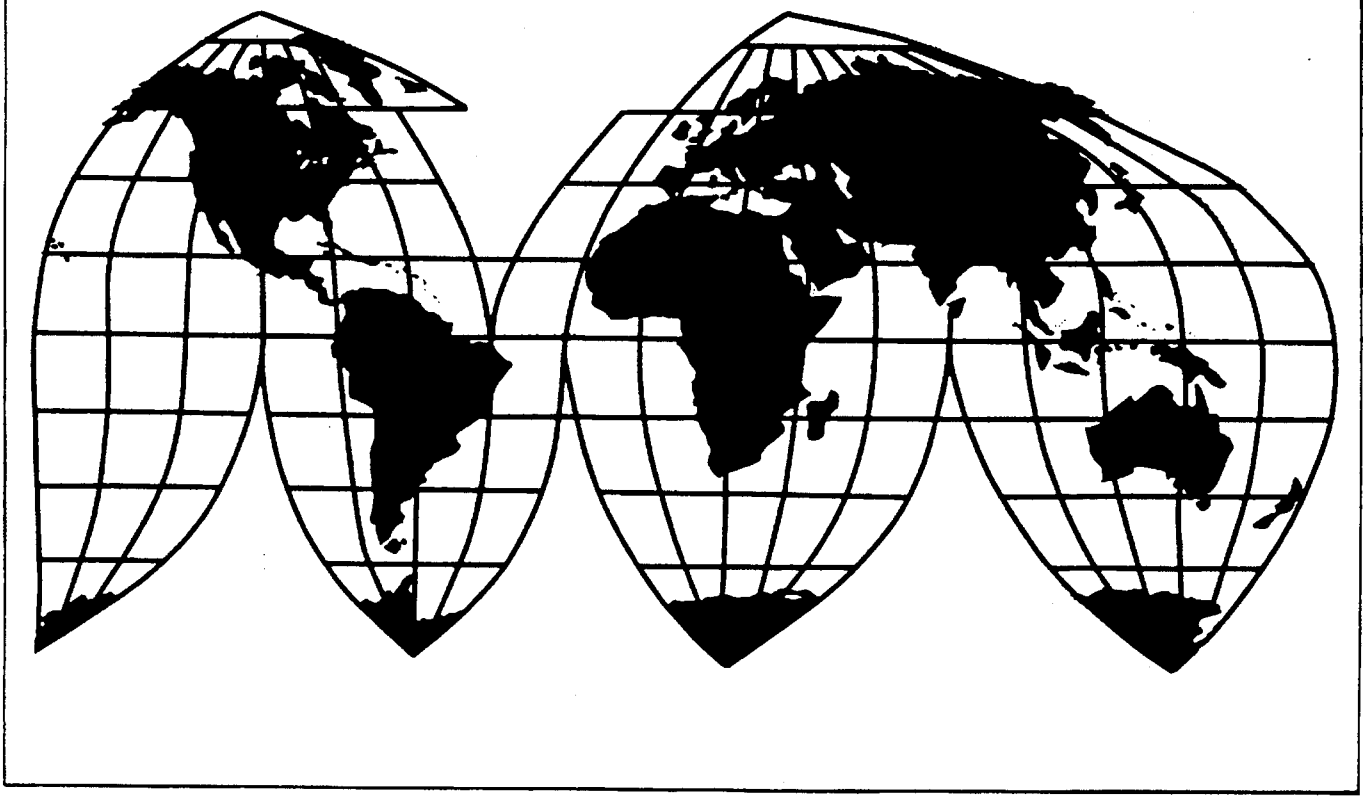
In the Matter of

Certain EPROM, EEPROM, Flash Memory, and Flash Microcontroller Semiconductor Devices, and Products Containing same

Investigation No. 337-TA-395

Publication 3136 **October 1998**

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

COMMISSIONERS

Lynn M. Bragg, Chairman
Marcia E. Miller, Vice Chairman
Carol T. Crawford
Jennifer A. Hillman
Stephen Koplan
Thelma J. Askey

Address all communications to
Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

U.S. International Trade Commission

Washington, DC 20436

In the Matter of

Certain EPROM, EEPROM, Flash Memory, and Flash Microcontroller Semiconductor Devices, and Products Containing same

Publication 3136

October 1998

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C. 20436

In the Matter of	
CERTAIN EPROM, EEPROM, FLASH MEMORY, and FLASH MICROCONTROLLER SEMICONDUCTOR DEVICES, and PRODUCTS CONTAINING SAME	**Inv. No. 337-TA-395**

ORDER[1]

The Commission instituted this investigation on March 18, 1997, based on a complaint filed by Atmel Corporation. 62 Fed. Reg. 13706. The complaint named five respondents: Sanyo Electric Co., Ltd., Winbond Electronics Corporation and Winbond Electronics North America Corporation (collectively "Winbond"), Macronix International Co., Ltd. and Macronix America, Inc. (collectively "Macronix"). Silicon Storage Technology, Inc. ("SST") was permitted to intervene.

In its complaint, Atmel alleged that respondents violated section 337 by importing into the United States, selling for importation, and/or selling in the United States after importation certain electronic products and/or components that infringe one or more of claim 1 of U.S. Letters Patent 4,511,811, claim 1 of U.S. Letters Patent 4,673,829, claim 1 of U.S. Letters Patent 4,974,565 ("the `565 patent"),and claims 1-9 of U.S. Letters Patent 4,451,903. The `565 patent was subsequently

[1] Commissioner Miller did not participate in this investigation.

removed from the case. The presiding administrative law judge ("ALJ") held an evidentiary hearing from December 8 to December 19, 1997.

On March 19, 1998, the ALJ issued his final ID finding that there was no violation of section 337. He found that neither claim 1 of U.S. Letters Patent 4,511,811 ("the `811 patent"), nor claim 1 of U.S. Letters Patent 4,673,829 ("the `829 patent"), nor claim 1 or claim 9 of U. S. Letters Patent 4,451,903 ("the `903 patent") was infringed by any product of the respondents or intervenor. He further found that the `903 patent was unenforceable because of waiver and implied license by legal estoppel, and that claims 2 through 8 of this patent are invalid for indefiniteness. He found that respondents and the intervenor had not demonstrated that any other claim at issue was invalid in view of any prior art before him, or that the `903 patent is void for failure to name a co-inventor. He found that complainant had not demonstrated that the `811 patent was entitled to an earlier date of invention than that appearing on the face of the patent. Finally, the ALJ found that there was a domestic industry with respect to all patents at issue.

On March 31, 1998, complainant Atmel filed a petition for review of the ALJ's final ID. On April 1, 1998, respondent Winbond filed a petition for review of the ALJ's ID. The other respondents and intervenor SST filed contingent petitions for review, raising issues to be considered in the event that the Commission determined to review certain of the ALJ's findings. In accordance with the Commission's directions, the parties filed

their initial briefs on May 26, 1998, and their reply briefs on June 5, 1998. Complainant Atmel and respondent Winbond requested oral argument, which request is hereby denied.

Having examined the record in this investigation, including the ID, the review briefs, and the responses thereto, it is hereby ORDERED THAT:

1. The investigation is terminated with a finding of no violation of section 337 of the Tariff Act of 1930.

2. The `811 and `829 patents are found to be invalid on the basis of issue preclusion.

3. The Commission takes no position on the ALJ's findings regarding claim construction, patent validity, patent priority, infringement, and domestic industry with respect to the `811 and `829 patents in accordance with *Beloit Corporation v. Valmet Oy, TVW Paper Machines, Inc. and the United States International Trade Commission,* 742 F.2d 1421 (Fed. Cir. 1984).

4. The Commission finds that the `903 patent is unenforceable for failure to name an inventor.[2]

5. The Secretary shall serve copies of this Order, and the forthcoming Commission opinion in support thereof, on the parties of record and on the Department of Health and Human Services, the Department of Justice, and the Federal Trade Commission, and publish notice thereof in the *Federal Register*.

By order of the Commission.

Donna R. Koehnke

Donna R. Koehnke
Secretary

Issued: July 02, 1998

---

[2] With regard to the `903 patent, Chairman Bragg in her supplemental views makes further findings on the issues of claim construction, validity, infringement, and domestic industry.

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C. 20436

In the Matter of	
CERTAIN EPROM, EEPROM, FLASH MEMORY, and FLASH MICROCONTROLLER SEMICONDUCTOR DEVICES, and Products Containing Same	Inv. No. 337-TA-395

NOTICE OF FINAL DETERMINATION

AGENCY: U.S. International Trade Commission

ACTION: Notice

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has determined to find no violation of section 337 in the above-captioned investigation.

FOR FURTHER INFORMATION CONTACT: John A. Wasleff, Esq., Office of the General Counsel, U.S. International Trade Commission, telephone 202-205-3094.

SUPPLEMENTAL INFORMATION:

The Commission instituted this investigation on March 18, 1997, based on a complaint filed by Atmel Corporation. 62 Fed. Reg. 13706. The complaint named five respondents: Sanyo Electric Co., Ltd., Winbond Electronics Corporation and Winbond Electronics North America Corporation (collectively "Winbond"), Macronix International Co., Ltd. and Macronix America, Inc. (collectively "Macronix"). Silicon Storage Technology, Inc. ("SST") was permitted to intervene.

In its complaint, Atmel alleged that respondents violated section 337 by importing into the United States, selling for importation, and/or selling in the United states after importation electronic products and/or components that infringe one or more of claim 1 of U.S. Letters Patent 4,511,811, claim 1 of U.S. Letters Patent 4,673,829, claim 1 of U.S. Letters Patent 4,974,565 ("the `565 patent")and claims 1-9 of U.S. Letters Patent 4,451,903. The `565 patent was subsequently removed from the case. The presiding ALJ held an evidentiary hearing from December 8 to December 19, 1997.

On March 19, 1998, the ALJ issued his final ID finding that there was no violation of section 337. He found that neither claim 1 of U.S. Letters Patent 4,511,811 ("the `811 patent"), nor claim 1 of U.S. Letters Patent 4,673,829 ("the `829 patent"),

nor claim 1 or claim 9 of U. S. Letters Patent 4,451,903 ("the `903 patent") was infringed by any product of the respondents or intervenor. He further found that the `903 patent was unenforceable because of waiver and implied license by legal estoppel, and that claims 2 through 8 of this patent are invalid for indefiniteness. He found that respondents and the intervenor had not demonstrated that any other claim at issue was invalid in view of any prior art before him, or that the `903 patent is void for failure to name a co-inventor. He found that complainant had not demonstrated that the `811 patent was entitled to an earlier date of invention than that appearing on the face of the patent. Finally, the ALJ found that there was a domestic industry with respect to all patents at issue.

On March 31, 1998, complainant Atmel filed a petition for review of the ALJ's final ID. On April 1, 1998, respondent Winbond filed a petition for review of the ALJ's ID. The other respondents and intervenor SST filed contingent petitions for review, raising issues to be considered in the event that the Commission determined to review certain of the ALJ's findings. In accordance with the Commission's directions, the parties filed their initial briefs on May 26, 1998, and their reply briefs on June 5, 1998. Complainant Atmel and respondent Winbond requested oral argument, which request is hereby denied.

Having examined the record in this investigation, including the ID, the review briefs, and the responses thereto, the Commission has determined that there is no violation of section 337. More specifically, the Commission finds that the `811 and `829 patents are invalid because of the preclusive effect of a decision of the United States District Court for the Northern District of California. The Commission also finds that the `903 patent is unenforceable for failure to name a co-inventor.

This action is taken under the authority of section 337 of the Tariff Act of 1930 (19 U.S.C. § 1337) and sections 210.42 - .45 of the Commission's Rules of Practice and Procedure (19 C.F.R. §§ 210.42 - .45).

Copies of the public version of the ID, the Commission's opinion, and all other nonconfidential documents filed in connection with this investigation are or will be 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 this matter can be obtained by contacting the

Commission's TDD terminal on 202-205-1810. General information concerning the Commission may also be obtained by accessing its Internet server *(http://www.usitc.gov)*.

By order of the Commission.[1]

Donna R. Koehnke

Donna R. Koehnke
Secretary

Issued: July 2, 1998

[1]Commissioner Miller did not participate in this investigation.

PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of	
CERTAIN EPROM, EEPROM, FLASH MEMORY, AND FLASH MICROCONTROLLER SEMICONDUCTOR DEVICES, AND PRODUCTS CONTAINING SAME	Inv. No. 337-TA-395

COMMISSION OPINION[1]

This investigation is before us for final resolution of the issues under review and, if necessary, for determinations on remedy, the public interest, and bonding. We find no violation of section 337 of the Tariff Act of 1930, and therefore need not consider the issues of remedy, the public interest, and bonding.

I. BACKGROUND

The Commission instituted this patent-based section 337 investigation on March 18, 1997,[2] based on a complaint by Atmel Corporation ("Atmel") of California. Atmel alleged that respondents Sanyo Electric Co., Ltd. ("Sanyo") of Japan, Winbond Electronics Corporation of Taiwan and Winbond Electronics North America Corporation of California (collectively "Winbond"), and Macronix International Co., Ltd. of Taiwan and Macronix, Inc. of California (collectively "Macronix") violated section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, by importing, selling for importation, and/or selling in the United States after importation certain goods infringing one or more of claim 1 of U.S. Letters Patent 4,511,811 ("the '811 patent"), claim 1 of U.S. Letters Patent 4,673,829 ("the '829 patent"), claim 1 of U.S. Letters Patent 4,794,565 ("the '565 patent"), and claims 1-9 of U.S. Letters Patent 4,451,903 ("the '903 patent"). Silicon Storage Technology, Inc. ("SST" or "intervenor") was permitted to intervene. The '565 patent was subsequently withdrawn from the case.

The '811 and '829 patents generally relate to circuitry for generating a limited current

---

[1] Commissioner Miller did not participate in this investigation.

[2] 62 *Fed. Reg.* 13706

high voltage[3] signal integral to a semiconductor chip, thereby eliminating the need for a second external power supply.[4] The '903 patent relates to auxiliary circuitry that may be added to any semiconductor chip enabling a user to identify the manufacturer and other pertinent data concerning the semiconductor chip by electrical interrogation of the semiconductor chip. The inventions disclosed in the '811, '829, and '903 patent have primary application to large scale memory chips, although they are potentially applicable to any semiconductor device.

The presiding administrative law judge ("ALJ")(Judge Paul Luckern) held an evidentiary hearing from December 8 to December 19, 1997. On March 19, 1998, the ALJ issued an initial determination ("ID") in which he concluded there was no violation of section 337. He found that neither claim 1 of the '811 patent, nor claim 1 of the '829 patent, nor claim 1 or claim 9 of the '903 patent was infringed by any product of respondents or intervenor. He further found that the '903 patent was unenforceable because of waiver and implied license by legal estoppel, and that claims 2 through 8 of this patent were invalid for indefiniteness. He found that respondents and intervenor had not demonstrated that any other claim at issue was invalid in view of any prior art before him, or that the '903 patent is void for failure to name a co-inventor. He found that Atmel had not demonstrated that the '811 patent was entitled to an earlier date of invention than that appearing on the face of the patent. Finally, the ALJ found that a domestic industry existed with respect to all the patents at issue.

The parties filed petitions for review that requested examination of virtually every finding in the ID. On March 31, 1998, complainant Atmel filed a petition for review of the claim construction and infringement issues with respect to all of the patent claims at issue, as well as certain issues pertaining to the priority date of the '811 and '829 patents and the domestic industry findings pertaining to all the patents. On April 1, 1998, respondent Winbond filed a petition for review of the finding on the inventorship of the '903 patent, and the findings as to the economic prong of the domestic industry requirement with respect to Atmel's inventory of SEEQ parts.[5] The other respondents and intervenor SST filed contingent petitions for review, raising issues of validity to be considered in the event the Commission determined to review certain of the ALJ's findings.

On May 6, 1998, the Commission notified the parties that it had determined not to review the finding of invalidity of claims 2-8 of the '903 patent, and to review the balance of the ID. The Commission requested that the parties respond to a series of questions, as well as provide written submissions on remedy, the public interest, and bonding. In accordance with the Commission's requests, the parties filed their initial briefs on May 26, 1998, and their

---

[3] This signal is on the order of 12-20 volts.

[4] Most semiconductor circuits are powered by a five volt power supply that is located external to the semiconductor chip on a printed circuit board assembly.

[5] Atmel acquired the rights to all three of the patents in issue from SEEQ Technology, Inc.("SEEQ"), the original assignee, along with a considerable parts inventory.

reply briefs on June 5, 1998. The target date for completion of this investigation was July 2, 1998.[6]

Having considered the parties' written submissions and the evidence of record, we determined to: (1) find the '811 and '829 patents invalid on the basis of issue preclusion; and (2) find the '903 patent unenforceable for failure to name an inventor.[7]

II. VIOLATION ISSUES

(A) Whether And To What Extent The Commission Should Give Preclusive Effect To The U.S. District Court Decision Regarding The '811 And '829 Patents

On April 14, 1998, after the ALJ issued his ID, the United States District Court for the Northern District of California rendered a decision ("the California decision") invalidating the '811 patent on a basis not raised before the ALJ.[8] Essentially, the district court held the '811 patent invalid because the patent specification attempts to incorporate by reference an article in an electronics industry trade magazine. Following the guidelines of the U. S. Patent and Trademark Office ("PTO"), the district court held that this attempted incorporation is improper. The court further found that the patent specification, without the article the patentee sought to incorporate by reference, did not enable a person of ordinary skill in the art to practice the '811 patent. The court therefore concluded that the '811 patent is invalid for indefiniteness under 35 U.S.C. § 112.

The court's decision is a partial summary judgment disposing of less than all the claims involved in the California lawsuit. While the court signaled its willingness to facilitate an interlocutory appeal of its invalidity ruling to the U.S. Court of Appeals for the Federal Circuit,[9] plaintiff/patentee Atmel, judging from its review briefs, apparently has no intention

---

[6] The target date was extended twice -- from June 22 to June 29 and from June 29 to July 2 -- to accommodate changes in the briefing schedule. Atmel and Winbond requested oral argument, which request was denied.

[7] With regard to the '903 patent, Chairman Bragg in her supplemental views makes further findings on the issues of claim construction, validity, enforceability, infringement, and domestic industry.

[8] *Atmel Corp. v. Information Storage Devices, Inc.*, slip op., No. C 95-1987 FMS (N.D. Cal. April 14, 1998).

[9] Order Denying Plaintiff's Motion For Leave To File Motion For Reconsideration, Etc., slip op. at 3, No. C95-1987 FMS (N.D. Cal. May 4, 1998). Under Fed. R. Civ. P. 54(b), the district court can, upon an express finding that there is no just reason for delay, direct entry of

(continued...)

of pursuing such an appeal.

In its review notice, the Commission requested briefing on what effect the California decision should have on its determinations with respect to the '811 patent, and on whether the Commission could consider the California decision with respect to the '829 patent, which has the same specification as the '811 patent. The review notice drew the parties' attention to *Lannom Mfg. Co., Inc. v. U.S. International Trade Comm'n.*, 799 F.2d 1572 (Fed. Cir. 1986), a case holding that the Commission is not authorized to consider patent validity *sua sponte* if that issue is not raised by the parties below.

Complainant Atmel and the Commission investigative attorney ("IA") argue that the California decision should have no bearing on the Commission's determinations in this case. Unless and until the ruling in the California decision becomes irrevocably final, it is asserted, the decision is not entitled to any preclusive effect under the doctrine of *res judicata*. It is also asserted that *Lannom* controls the present situation, preventing any reliance by the Commission on a theory of invalidity not raised by the parties below.

Respondents argue for preclusion on the basis of the California decision. Ignoring the procedural lack of finality of the California decision, some respondents cite to a Commission case in which the U.S. Court of Appeals for the Federal Circuit upheld the Commission's suspension of an exclusion order in view of a final judgment of invalidity issued by a U.S. district court.[10] Another respondent argues that while the California decision is not final in the sense of a final judgment having been entered, it is nevertheless final enough for purposes of issue preclusion. Respondents further argue that *Lannom* does not apply to this investigation since invalidity defenses were raised below, albeit on different theories than that considered by the district court.

The doctrine of issue preclusion benefits the legal system and litigants alike, by imposing finality upon litigation, thereby reducing the burdens arising from indefinitely prolonging a dispute. It gives certainty and repose to the litigants and conserves scarce judicial and administrative resources. The doctrine of issue preclusion does not require a formal final judgment by the other tribunal. The pertinent standard is set forth in Section 13 of the Restatement (Second) of Judgments (1982):

> [F]or purposes of issue preclusion (as distinguished from [claim preclusion]), "final judgment" includes any prior adjudication of an issue in another action

---

[9] (...continued)
final judgment as to fewer than all the claims. In order to obtain immediate appeal of such an interlocutory decision, however, the Federal Circuit would also have to agree to accept such an appeal under 28 U.S.C. § 1292(b).

[10] *SSIH Equipment S.A. v. United States Int'l Trade Comm'n*, 718 F.2d 365, 370 (Fed. Cir 1983).

that is determined to be sufficiently firm to be accorded conclusive effect.[11]

Thus, we are not bound to give preclusive effect to the California decision, but must decide whether in our best judgment we should give preclusive effect to that decision.

The comments to the Restatement elaborate on certain factors supporting issue preclusion: (1) the parties were fully heard, (2) the court supported its decision with a reasoned opinion, and (3) the decision is subject to appeal. *Id.* comment g. On the other hand, the comment states that issue preclusion should be refused if the decision in question is "tentative."

All of these Restatement factors favor issue preclusion in this case. The district court denied a motion by Atmel for reconsideration, strongly indicating that the court is quite firm in its decision and that the decision is not at all tentative. The court's reasoning is completely set forth in a fairly elaborate opinion, and the parties appear to have had the opportunity to present all arguments that might be material to the court's decision.[12] Finally, the decision is subject to appeal, either in the near term or the long term. In fact, the district court appears willing to facilitate an interlocutory appeal. Thus, if the Commission were a U.S. district court, there is little question it would defer to the district court as to the validity of the '811 patent.

It is also clear that a district court would find the '829 patent invalid on the basis of the preclusive effect of the California decision. The issue, in view of the California decision, is whether the claim at issue in the '829 patent[13] presents any new issues of validity not decided by the California decision.[14] The answer to this question is clearly no. The '811 and '829

---

[11] The Federal Circuit has repeatedly cited the Restatement (Second) of Judgments, including the section under consideration, as persuasive authority. *See, e.g., Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1135 (Fed. Cir. 1985) (adjudication of former patent claims not sufficiently final to be preclusive in litigation concerning reissue patent); *The Young Engineers v. U.S. International Trade Comm'n*, 721 F.2d 1305 (Fed. Cir. 1983)(Restatement sets forth principles to be used by the Commission in deciding claim preclusion matters).

[12] Complainant Atmel contends that it was denied a full and fair opportunity to litigate this issue in California because the district court did not fully grasp the complexity of the issue and because Atmel was denied the opportunity to take certain discovery. In our view, these issues are best addressed in the context of an appeal from the California decision, and we decline to evaluate them in this investigation.

[13] There is only one claim (claim 1) at issue in both the '811 and '829 patents.

[14] *Interconnect Planning, supra,* 774 F.2d at 1136. ("in determining the applicability of the estoppel, the first consideration is 'whether the issue of invalidity common to each action is substantially identical'")(citing *Carter-Wallace, Inc. v. United States,* 496 F.2d 535, 538 (Ct.

(continued...)

patents have the same specification. All limitations in the '811 claim at issue are present in the '829 claim, and no party suggests that any new validity issues are raised by the additional limitations in the '829 claim at issue. Thus, if the district court's finding of invalidity with respect to the '811 patent is sustained, then the '829 patent is also invalid by principles of issue preclusion.[15]

The Federal Circuit has made it clear that the Commission should invoke principles of *res judicata* in the same manner as a district court to avoid devoting time and attention to a matter that has already been resolved by another forum.[16] Furthermore, the Federal Circuit has noted that there is no legitimate basis for a finding that acts of importation are unfair if there has been a judicial determination that the importer's acts are legal.[17]

These principles favor issue preclusion in this investigation. The burdens of deciding, articulating, and defending issues of claim construction, patent validity, infringement, and domestic industry with respect to the '811 and '829 patents can be at least postponed, and perhaps avoided altogether by according preclusive effect to the California decision. Moreover, there is no present justification for disrupting international trade with an exclusion order and/or cease and desist orders when, by virtue of the California decision, there is, in effect, no '811 patent or '829 patent to be infringed. At least for the present, respondents and intervenor are entitled to some repose in view of the district court ruling.

For the foregoing reasons, we defer to the California district court and decline to find a violation of section 337 as to the '811 and '829 patents on the grounds that those patents are presumptively invalid. We therefore take no position on the issues of claim construction, patent priority, patent validity, infringement, and domestic industry with respect to the '811 and '829 patents.[18]

It is important to note that in giving preclusive effect to the California decision, we are not examining an argument or defense not raised below. We are making no evaluation of the merits of the district court's invalidity ruling. Rather, our decision is based solely on the preclusive effect to be accorded a decision by a U.S. district court. For this reason, we view

---

[14] (...continued)
Cl. 1974)).

[15] *Cf. Amgen, Inc. v. Genetics Institute, Inc.*, 98 F.3d 1328 (Fed. Cir. 1996)(issue preclusion applied to unlitigated claims where second patent had common specification with claims judged invalid in first patent).

[16] *The Young Engineers, supra,* 721 F.2d at 1315.

[17] *Id. at 1316.*

[18] *Beloit Corp. v. Valmet Oy*, 742 F.2d 1421 (Fed. Cir. 1984), *cert. denied,* 472 U.S. 1009 (1985).

the *Lannom* case as inapposite.

(B) Whether The '903 Patent Is Unenforceable For Failure To Name A Co-inventor

The patent statute provides that when an invention is made by two or more persons, they all shall apply for the patent jointly.[19] Respondents and intervenor argued below that there were one or more persons who were joint inventors along with the inventor actually named on the face of the '903 patent. As developed more fully below, such a defect would render the '903 patent unenforceable, at least temporarily.

The ALJ found that respondents/intervenor had failed to prove the existence of co-inventors by clear and convincing evidence. He noted that both the named inventor (Larry Jordan) and the engineer (Anil Gupta) who testified that he implemented Jordan's idea in silicon, attributed the essential conception of the invention to Jordan. Engineer Gupta testified that he implemented the elements of the invention of the '903 patent using well known circuit techniques, and that as a young engineer he did not have the breadth of experience to "come up with Silicon Signature."[20]

Winbond argues that named inventor Jordan's own admissions that he did not conceive of the circuit means disclosed in the patent specification preclude any possibility that he is the sole inventor of the '903 patent. Winbond points out that without adequate description of the circuit means, the patent would be invalid for vagueness. It concludes that since the Commission does not have the power to order correction of inventorship, the patent is unenforceable as a matter of law.

Atmel and the IA note that the ALJ heard the testimony of both the named inventor and the engineer who implemented the idea, both of whom attribute the invention to Mr. Jordan.

---

[19] 35 U.S.C. § 116.

[20] The relevant testimony is as follows:

> I [Anil Gupta] at that time was a young engineer with a few years -- this was my first job in nonvolatile memories. I, of course, had not the breadth to come up with silicon signature. Mr. Jordan [the named inventor] had worked in nonvolatile memory field for a couple of years with his prior employer, Intel Corporation, and it was an idea which Mr. Jordan had come up [*sic*, with] after having seen the problems faced, which I don't have details right now, but he was very proud of this idea of silicon signature, and that's why I'm very hesitant to take the credit to say -- because I was sort of the technician, you can say, implemented it into silicon.

Hearing Tr. at 1062.

They further note that there is no one in the SEEQ/Atmel organization who claims to be a joint inventor. They conclude that Winbond and the other respondents/intervenor have failed to carry their burden of proof by clear and convincing evidence.

At the time the ALJ's final ID issued, Federal Circuit cases had sent mixed signals as to what constitutes conception of an invention. One panel stated that "[conception] is complete when one of ordinary skill in the art could construct the apparatus without unduly extensive research or experimentation."[21] Another panel stated that "[conception] is the formation in the mind of the inventor, of a definite and permanent idea of the complete and *operative* invention, *as it is hereafter to be applied in practice.*"[22] The former statement appears to support the ALJ's finding on inventorship, while the latter statement appears to indicate that named inventor Jordan's contribution falls short of that which is necessary for a complete conception of an invention.

It appears from the record that the sole named inventor of the '903 patent, Larry Jordan, is a marketing person who has never designed semiconductor products in his career.[23] His testimony is to the effect that he had a general concept of Silicon Signature in block diagram form, but that he had no involvement in the physical realization of the invention.[24] He admits that he did not conceive any of the circuitry by which the elements of the patent claims at issue were realized.[25] While his concept could be and was implemented using common circuit techniques without undue experimentation, the disclosure of Jordan did not rise to the level of an "operative invention" within the meaning of *Hybritech*.

Analysis of the inventorship issue is complicated by the fact that certain claim elements of the '903 patent are written in means plus function language. A patent specification must disclose some structure with respect to means plus function elements that performs each of the claimed functions.[26] Thus, a patent would not have been granted on the basis of Jordan's disclosure alone.[27] The question is whether the person(s) who selected particular circuit

---

[21] *Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994).

[22] *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1376 (Fed. Cir. 1986), *cert. denied,* 480 U.S. 947 (1987) (emphasis added).

[23] Hearing Tr. at 3104 (12/19/97).

[24] Hearing Tr. at 3107-3108.

[25] Hearing Tr. at 3108, 3109, 3110.

[26] *Valmont Industries Inc. v. Reinke Mfg. Co.*, 983 F.2d 1039, 1042 (Fed. Cir. 1993).

[27] *See In re Donaldson Co.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994)(*en banc*)(unless patent (continued...)

structures for each of the means plus function claim elements (presumably Gupta) is a co-inventor.

Since inventorship is a disfavored technical defense,[28] that must be proven by clear and convincing evidence, we are ordinarily reluctant to go behind an ALJ's findings on this issue. Since the ID issued, however, the Federal Circuit has issued an opinion that answers the question posed. In *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456 (Fed. Cir. 1998), the court dealt with the contribution of an electronics technician to an invention for a surgical instrument claimed in means plus function format. The court emphasized the *Hybritech* standard of a complete and operative invention. Of even more significance, however, is the following statement concerning inventorship in the means plus function context:

> The contributor of *any disclosed means* of a means-plus-function claim element *is a joint inventor* as to that claim, *unless* one asserting sole inventorship can show that the contribution of that means was simply a reduction to practice of the sole inventor's broader concept [citing *Sewall*].

135 F.3d at 1463 (emphasis added). We find that named inventor Jordan's involvement in the particulars of the circuit design in this investigation did not rise to the level of the sole inventor's involvement in *Sewall.*[29] Jordan neither selected nor simulated the performance of any circuit means. Therefore, we conclude that the above stated exception in *Ethicon* does not apply.

On the basis of *Ethicon*, we find that the '903 patent is unenforceable for failure to name an inventor. Since the Commission has no power to correct inventorship,[30] the '903

---

[27] (...continued)
specification discloses structure to give meaning to means plus function language, patent is invalid for indefiniteness).

[28] *Certain Double-Sided Floppy Disk Drives and Components Thereof*, Inv. No. 337-TA-215 USITC Pub. 1860 (1986).

[29] The named inventor in *Sewall* had formulated particular circuit elements and simulated their performance, leaving the putative co-inventor with nothing to do except implement the circuits in silicon.

[30] *Certain Apparatus for the Continuous Production of Copper Rod,* 206 USPQ 138, 153 (Comm'n Opinion 1979).

patent is unenforceable unless and until either the PTO or a court makes the correction.[31] No remedy based on infringement of the '903 patent can be issued unless and until inventorship has been corrected.

Issued: July 9, 1998

[31] The inventorship can be corrected if the omission occurred without deceptive intent of the co-inventor(s). 35 U.S.C. § 256 ¶1. The corrected patent will be enforceable if there is no deceptive intent on the part of any of the true inventors. *Stark v. Advanced Magnetics, Inc.*, 119 F.3d 1551, 1556 (Fed. Cir. 1997).

PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of	
CERTAIN EPROM, EEPROM, FLASH MEMORY, AND FLASH MICROCONTROLLER SEMICONDUCTOR DEVICES, AND PRODUCTS CONTAINING SAME	Inv. No. 337-TA-395

SUPPLEMENTAL VIEWS OF CHAIRMAN BRAGG

While the Commission has reached a "no violation" determination with respect to the '903 patent on the basis of a single dispositive issue, I believe it is appropriate to proceed to the other issues under review with respect to that patent. In recognizing the Commission's power to rest its determination on a single issue when it appears "inevitable and unassailable," the Federal Circuit cautioned that this practice carries a risk of duplicative effort and should be used judiciously.[32] Moreover, the court cited precedent from a predecessor court (the U.S. Court of Customs and Patent Appeals) setting forth the precept that "it would be advisable for the Commission to render a decision on all appealable issues presented to it."[33]

In view of the deference due to a determination of a federal district court, I view the risk of reversal and remand acceptable with respect to the '811 and '829 patents. Because I have no reason to believe that the inventorship of the '903 patent is not correctible, however, a discussion of the other violation issues with respect to that patent is in order and appropriate.

Therefore, I have further found as follows: (1) there is no basis in law for any contention that the '903 patent is unenforceable due to waiver and implied license by legal estoppel; (2) claim 1 and claim 9 of the '903 patent should be construed as set forth below; (3) the '903 patent is valid; (4) intervenor SST and respondents Sanyo and Winbond infringe the '903 patent, but respondent Macronix does not infringe that patent; and (5) complainant Atmel has established a domestic industry with respect to the '903 patent.

---

[32] *Beloit Corp. v. Valmet Oy,* 742 F.2d 1421, 1423 (Fed. Cir. 1984).

[33] *Id.* (quoting *Coleco Industries, Inc. v. United States International Trade Commission,* 573 F.2d 1247, 1252 (CCPA 1978)).

(A) Whether The '903 Patent Is Unenforceable Due To Waiver And/Or Implied License

The '903 patent discloses auxiliary circuitry for providing identification information that can be obtained by applying an external electrical signal to the chip. SEEQ, the original assignee of the '903 patent, referred to this identification method and associated circuitry as "Silicon Signature."

In 1981, SEEQ proposed to JEDEC,[34] a committee of the Electronic Industries Association with responsibility for setting industry standards, that the identification method disclosed in the '903 patent be adopted as a standard. During the period from 1981 to 1984, most companies in the semiconductor industry apparently expected that Silicon Signature would be adopted as an official industry standard, and began behaving as if that assumption was an accomplished fact.

In addition to SEEQ's efforts to promote use of the '903 technology, a manufacturer of PROM programming machines, Data I/O, began advocating its usage in the industry. In cooperation with SEEQ, Data I/O designed its programming machines to exploit Silicon Signature, and began encouraging other semiconductor manufacturers to incorporate it into their chips.

SEEQ's proposal to establish an industry standard was initially evaluated by a group of industry personnel that was designated as the "JC 42.3 committee" of JEDEC. This group studied the matter for a period of approximately six months. Eventually, the JC 42.3 committee recommended the adoption of Silicon Signature as a JEDEC standard. Subsequently, SEEQ sought to represent in the trade press and in its annual reports that Silicon Signature was an industry standard enjoying wide acceptance in the electronics industry. JEDEC never implemented the recommendation of the JC 42.3 committee, however, opting instead simply to establish a set of identification numbers for various manufacturers without reference to the method of implementing the identification in semiconductor products.

During the pendency of JEDEC's evaluation, SEEQ attempted to address concerns about its patent rights in the technology. SEEQ repeatedly stated its willingness to grant a royalty free license to any manufacturer.[35] In fact, after JEDEC failed to adopt Silicon Signature as a standard, seven Japanese firms acquired such licenses for modest fees between

---

[34] JEDEC is an acronym for Joint Electronics Device Council.

[35] FF 92, 93, 96, 98, 105, 112, 113, 116. A royalty free license connotes a one-time fee, as opposed to a royalty assessed on every product manufactured or sold utilizing the patented technology.

1985 and 1986.[36] In 1994 and 1995, respondent Macronix and complainant Atmel exchanged correspondence regarding a license for a one-time fee, but did not consummate a license agreement.[37] SEEQ's offer to make the '903 patent technology available for royalty free licenses was not explicitly qualified in any way until October 1983, when a letter from SEEQ's outside counsel to JEDEC referred to the offer as contingent on the acceptance of Silicon Signature as a JEDEC standard.

It is undisputed that neither SEEQ nor Atmel ever sued anyone for infringement between 1985, when the '903 patent issued, and the commencement of the present investigation in March 1997. In particular, complainant Atmel itself used the patent without license between 1985 and its acquisition of the patent from SEEQ in 1994. While SEEQ and Atmel were involved in several lawsuits during this period, none of them involved the '903 patent.

I am aware of no evidence that either respondents or intervenor heard any of SEEQ's statements before JEDEC in the first instance. Neither respondents nor intervenor points to any evidence that they later became aware of SEEQ's statements before JEDEC prior to making a business decision to incorporate the technology of the '903 patent into their respective products. In fact, there is evidence to the contrary. Intervenor SST was under the false impression that Silicon Signature was an official standard and implemented it in its products without any awareness that the technology was the subject of a patent.

The ALJ found that the totality of SEEQ's conduct in promoting usage of the '903 patent technology amounted to a unilateral, intentional waiver of the patent right. The Commission set forth review questions in an effort to determine whether there is any other legal or equitable basis upon which either respondents or intervenor may claim a right to practice the technology of the '903 patent.

I find no evidence that SEEQ's interaction with JEDEC ever rose to the level of a contractual relationship between those entities. Moreover, no one has pointed to any evidence that SEEQ's negotiations with JEDEC were structured in a way to confer any right to practice the patent, either on JEDEC members, or the industry at large existing at the time of the negotiations, much less respondents and/or intervenor.[38] Therefore, unless and until JEDEC approved Silicon Signature as an industry standard, and SEEQ formally renounced or

---

[36] FF 246, 256, 261, 269, 275, 282, 290.

[37] FF 316-340.

[38] In more recent times, standards boards in the electrical and electronics industries will not agree to consider the establishment of an industry standard covered by a patent unless the patentee agrees *a priori* to provide access to the technology on "a nondiscriminatory and reasonable basis." In this case, however, respondents/intervenor have pointed to no evidence that the negotiations between SEEQ and JEDEC were governed by any such understanding or protocol.

abrogated its patent rights in that process, the individual members of the industry were on their own insofar as obtaining rights to practice the '903 patent were concerned.[39]

I further note that the evidence does not support any contention that seeking to have patented technology adopted as an industry standard, without more, gives rise to any kind of implied license or to an estoppel precluding compensation for the use of the technology. There is undisputed evidence in this case that the Intel Corporation's microprocessor chip architecture is an industry standard, but Intel receives compensation for the use of that technology.[40]

This case is also distinguishable from cases where an implied license was found after a patentee deliberately hid the existence of a patent from a standards board in order to have its patent accepted as an industry standard.[41] In this case, there is no industry requirement that anyone employ Silicon Signature to identify their parts. Despite its widespread adoption, the use of the technology of the '903 patent by respondents/intervenor is essentially their choice. Moreover, whatever else SEEQ did before JEDEC, it certainly did not hide the existence of its patent application. SEEQ neither behaved fraudulently before JEDEC nor succeeded in its goal of having its technology accepted as a standard by the industry.

It would appear that SEEQ, during the period in which it was promoting adoption of Silicon Signature, made an offer to grant royalty free licenses to the '903 patent. The ALJ found that this offer was not contingent on establishment of an industry standard.[42] At least as an initial matter, this finding appears to be correct. Indeed, SEEQ's behavior in granting seven licenses for a nominal fee even after the JEDEC negotiations failed is consistent with this finding.

Respondents and intervenor argue that acceptance of SEEQ's offer for a royalty free

---

[39] Two of the briefs contend that the proper view of the transactions is that SEEQ contracted with the entire industry, of which they are members. In particular, SST characterizes the "offer" made by SEEQ as free usage by the industry provided that JEDEC established a roster of manufacturer identification numbers (which it did). I regard this argument as tenuous at best, and note only that there is no evidence of record that such an offer was ever made. A royalty free license is not, by definition, the equivalent of "free."

[40] Hearing Tr. 2051:25-2052:12

[41] *Cf. Stambler v. Diebold, Inc.*, 11 USPQ2d 1709 (E.D.N.Y. 1988)(implied license by equitable estoppel where patentee sat on standards board for its industry and resigned without bringing its patent to attention of board, which later adopted infringing standard); *Potter Instrument Co., Inc. v. Storage Technology Corp.*, 207 USPQ 763, 769 (E.D. Va. 1980), *aff'd.*, 641 F.2d 190 (4th Cir. 1981), *cert. denied,* 454 U.S. 832 (1981)(patentee did not disclose patent to standards board which adopted infringing standard with patentee's participation).

[42] FF 122.

license could be accomplished simply by incorporating the technology into their products. In support of this assertion, they point to a statement in the JEDEC minutes by SEEQ to the effect that it was willing to place the patent in the public domain so that users would have the right to the technology of the proposed standard without recourse to legal paperwork.[43]

My view of the offer for royalty free licenses turns on three important considerations. First, there is nothing, either in JEDEC's procedures or in SEEQ's decision to offer such licenses, that legally bound SEEQ (or Atmel) to maintain this posture forever.[44] Second, an offer for a royalty free license is not, by its own terms, an invitation to use the patented technology free of charge. Both the promotional literature distributed on SEEQ's behalf by Data I/O and the seven royalty free licenses granted to Japanese manufacturers are clear indications that SEEQ expected some remuneration for use of its patent. Thus, acceptance of SEEQ's licensing offer could be accomplished by paying a one-time fee and signing an agreement, not simply by beginning to exploit the patent. The statement on which respondents/intervenor rely, quoted above, is that SEEQ would place the '903 patent in the public domain in the future if the JEDEC standard were established, not that it had already done so. The statement does not pertain to the offer for royalty free licenses, but rather to a further step that SEEQ contemplated it might undertake in the event its proposal was accepted by JEDEC. Paperwork free access to the technology of the '903 patent was similarly contingent and in the future. Third, the offer for a royalty free license, whether contingent or not,[45] pertains only to those companies who accepted the offer, which does not include respondents/intervenor in this case. They had no knowledge of it.

Thus, I am of the view that respondents/intervenor have no contractual right to practice the '903 patent. To escape liability for infringement, I believe they must show that some equitable doctrine prevents Atmel from enforcing the '903 patent against them.

---

[43] The text of the minutes reads:

> Larry Jordan [the putative inventor of the '903 patent] reported that SEEQ would make that portion of their patent pertaining to the Electronic [*i.e.*, Silicon] Signature part of the public domain and therefore all users would have the right to the proposed standard without recourse to any legal or other paperwork.

FF 97.

[44] Indeed, SEEQ's statements near the end of negotiations with JEDEC that the offer was contingent on acceptance of Silicon Signature as a standard (FF 109, RX355, Attachment E) is a clear signal that SEEQ's licensing offer might terminate.

[45] This would be a different case if Atmel were arguing that the existing SEEQ licenses are void for failure of a condition subsequent (establishment of Silicon Signature as an industry standard) and that Atmel therefore has the right to enforce its patent against its current licensees.

My analysis of equitable doctrines begins with *A.C. Aukerman Co. v. R.L. Chaides Construction Co.*, 960 F.2d 1020 (Fed. Cir. 1992)(*en banc*). That case discusses in detail the equitable doctrines of laches and equitable estoppel in the patent context. The plaintiff in *Aukerman* had initially contacted an accused infringer and suggested that he take a license. When the accused infringer declined to take a license, however, the patentee chose to forego litigation since the accused infringer was then a minor player in the market relevant to the patent. Approximately nine years later, the patentee learned that the accused infringer's business in the patented technology had grown considerably, and filed suit for infringement. The accused infringer raised defenses of laches and equitable estoppel, and the district court dismissed the suit on the basis of those defenses.

On appeal, the Federal Circuit held that laches, arising from delay in filing suit, is a bar only with respect to damages accrued prior to suit.[46] "[M]ore is required in the overall equities than simple laches if an alleged infringer seeks to wholly bar a patentee's claim."[47] The court went on to describe the requirements for equitable estoppel, which is one of four doctrines that wholly bars enforcement of a patent. Among the requirements to establish a defense of equitable estoppel is that the accused infringer must rely on some misleading communication. In particular, the court stated that in order to prove equitable estoppel, the alleged infringer cannot be unaware of the patent.[48] It also stated that mere silence on the part of the patentee concerning infringement will not create an estoppel unless there is a clear duty to speak.[49]

The *Aukerman* case has several implications for resolution of the implied license issue in this investigation. First, all of the evidence concerning SEEQ's lack of enforcement of its rights under the '903 patent over the years is irrelevant. Without some conduct by the patentee that affirmatively misleads the infringer, the patentee's inaction concerning infringement can only serve to cut off damages retroactively. It cannot foreclose prospective relief after a complaint has been filed. Second, contrary to the arguments of respondents/intervenor, there is no basis on which an equitable estoppel can be established. Intervenor SST admits it was unaware of the patent prior to being contacted by Atmel in 1994, which, under *Aukerman*, forecloses the possibility of an equitable estoppel arising, at least with respect to that party.[50] Furthermore, in response to the Commission's review questions, neither respondents nor

---

[46] 960 F.2d at 1041.

[47] 960 F.2d at 1040.

[48] 960 F.2d 1042.

[49] 960 F.2d at 1043.

[50] In view of the analysis that follows, it is unnecessary for me to consider the implications arising from the fact that certain of the respondents act as foundries for SST.

intervenor pointed to any evidence that they were aware of any of the statements on which they now rely before deciding to incorporate Silicon Signature into their products. In fact, there is evidence that intervenor SST and respondent Macronix were unaware of those statements.[51] This fact forecloses the type of detrimental reliance that can support equitable estoppel, as contemplated by *Aukerman*. An infringer cannot detrimentally rely on a statement or representation of which it is unaware.

Neither respondents nor intervenor points to any evidence of statements or conduct on the part of SEEQ that was directed particularly to them. Instead, all rely on SEEQ's conduct toward "the industry" to support claims of equitable estoppel. Intervenor SST and respondent Winbond point specifically to the impressions of SST employees.[52] Essentially, respondents/intervenor seek to rely on a general, albeit false, impression in the industry that the Silicon Signature technology was an industry standard. I am aware of no precedent for reliance on this type of general impression that is "in the air," as opposed to specific statements by the patentee to the accused infringer. I also find no indication that the Federal Circuit is disposed to enunciate such a new principle of law, one which it seems to have avoided in the past.[53]

SST and Macronix argue that SEEQ's silence after the rejection of its proposal by JEDEC amounts to misleading conduct. Macronix additionally argues that SEEQ never withdrew its offer for royalty free licenses in a manner commensurate with the industry wide publication by which the offer was allegedly made. In view of the widespread adoption of Silicon Signature in response to SEEQ's promotion of the concept, both before JEDEC and in the marketplace, they contend that SEEQ had a duty to speak if it intended to enforce the

---

[51] Hearing Tr. at 2013:20-2014:7 (Yui); 1982:22-1983:1-1984 (Yeh); RX 363.

[52] To briefly summarize, Bing Yeh, the founder of SST had previously worked in the semiconductor industry for ten years, during which time he became aware of the widespread use of Silicon Signature, and was under the impression that JEDEC had adopted it as an industry standard. Additionally, Ping Wang, a circuit designer for SST, stated that in his experience he had never known SEEQ to assert any patent claims related to Silicon Signature and was unaware of any claims of ownership of "that standard." The ALJ characterized this testimony as establishing "that a relationship existed between SEEQ and SST, *through JEDEC*," and concluded that a license had been granted within that relationship. (ID at 39-40)(emphasis added). Winbond, as a foundry for SST, argues that it should get the benefit of any implied license by equitable estoppel obtained by SST.

[53] *See Wang Laboratories, Inc. v. Mitsubishi Electronics,* 103 F.3d at 1575, 1581-1582 (Fed. Cir. 1997) (court did not rely, as basis for equitable estoppel, on fact that Wang, in persuading JEDEC to adopt its design as industry standard, falsely stated it was not seeking patent rights and no license agreements would be involved; court instead focused on bilateral relationship between Wang and accused infringer).

patent after the rejection of its proposal for a standard.

The answer to these arguments is twofold. First, SEEQ did indicate, near the conclusion of its negotiations with JEDEC, that its offer of royalty free licenses was contingent on acceptance of Silicon Signature as an industry standard.[54] While these statements might not be effective against anyone that had relied on its unconditional statements up to that point, it is fair warning to anyone viewing the totality of the record years later. SEEQ's final statements concerning the contingent nature of its offer are as public and accessible as some of those by which respondents/intervenor seek to find a waiver and/or estoppel. Second, no silence of SEEQ/Atmel was a factor in misleading respondents or intervenor, one of which was unaware of the very existence of the patent at the time it was making a business decision to practice the patented technology. If there was some duty to speak further, respondents/intervenor do not have standing to complain about SEEQ/Atmel's failure to perform that duty. That some of them were misinformed as to the existence of an industry standard is not the result of misleading conduct on the part of SEEQ/Atmel.

More recently, the Federal Circuit, surveying cases and commentators, has identified four "avenues to an implied license." *Wang Laboratories, Inc. v. Mitsubishi Electronics*, 103 F.3d 1571, 1580 (Fed. Cir.), *cert. denied*, 118 S. Ct. 69 (1997). None of the cases from which these four avenues were derived, however, involve anything other than bilateral transactions between the patentee and the putative licensee.[55]

So far as the record discloses, respondents/intervenor did not even exist at the time the negotiations with JEDEC occurred.[56] Furthermore, neither respondents nor intervenor points to any evidence of record that they reviewed or were even aware of the statements made by SEEQ before JEDEC. The only conduct of the patentee toward either respondents or intervenor is eleventh-hour negotiations for a license under the patent.[57] Thus, there does not appear to be any conduct toward either respondents or intervenor upon which an implied license could be grounded. This fact presents a fundamental problem in finding any implied license of the '903 patent rights with respect to these parties.

The ALJ found that intervenor SST had an implied license by legal estoppel. According to *Wang*, a patentee is legally estopped from enforcing its patent if it licenses or assigns a patent, receives consideration, and thereafter seeks to derogate from the right

---

[54] FF 112, 116.

[55] This includes the so-called "doctrine of acquiescence," which Macronix raises in its review brief. Macronix seeks to extend this doctrine far beyond the rather narrow set of cases from which it was derived.

[56] FF 315, 354. I also take administrative notice that the Internet website of respondent Winbond states that it was not established until 1987.

[57] FF 316-340.

granted.[58] In this case, there was no grant of a license with respect to any of the respondents or intervenor SST.[59] Furthermore, I do not believe that the widespread *ad hoc* adoption of the technology by the industry after initiation of negotiations between SEEQ and JEDEC can serve as consideration. JEDEC had no control over how rapidly the technology might be accepted in the industry during the pendency of its review of SEEQ's proposal. The parties could not possibly have bargained for such an outcome; it is a fortuity.[60] Therefore, the facts of this case do not support a finding of legal estoppel.

In addition to analyzing established doctrines of implied license, the ALJ applied contract principles of unilateral waiver. Except for a statutory procedure that was not employed in this case,[61] there appears to be no law providing that a patentee's unilateral conduct can effectively dedicate its patent to the public. No party has cited any case involving a waiver of a patent right, as that term was used by the ALJ, and I know of none. Rather, the case law speaks uniformly in terms of implied license.

Application of the facts in this investigation to the ALJ's waiver analysis is also problematic. The next section of *Corpus Juris Secundum,* which is the authority cited by the ALJ, states that waiver by implication is not favored,[62] and that such waiver will not be inferred from doubtful or ambiguous facts. Most of SEEQ's statements before JEDEC state a

---

[58] 103 F.3d at 1581.

[59] If Atmel sought to enforce its patent against one of its seven licensees, claiming a failure of a condition subsequent (obtaining an official JEDEC standard), those facts might present a case of legal estoppel.

[60] The ALJ, following a jury instruction recited in *Wang,* perceived a further requirement that there be an existing relationship between SEEQ and SST. He found that there was such a relationship *through JEDEC.* I do not read *Wang* to set forth such a requirement. Examination of the subordinate findings supporting the ALJ's conclusion, however, reveals only that the founder of SST, Bing Yeh, had a mistaken impression that Silicon Signature was an industry standard. This impression was gathered not from any familiarity with or review of the proceedings before JEDEC, but from his own experience with a former employer. (FF 357-359). Assuming such a bilateral relationship is a requirement, the facts of this case also do not support the ALJ's conclusion. There is no relationship between SEEQ/Atmel and SST, through JEDEC or otherwise.

[61] 35 U.S.C. § 253 provides that a patentee may formally dedicate a patent to the public by filing appropriate papers with the PTO.

[62] C.J.S. § 68.

willingness on the part of the patentee to grant "a royalty free license."[63] By definition, a royalty free license does not imply an invitation to use the technology free of charge; the patentee has reserved the right to charge a one-time license fee. Furthermore, a license is a bilateral agreement that must be effected between the patentee and the licensee. It unclear to me -- even assuming that SEEQ's statements were not contingent on JEDEC acceptance of the patentee's proposal -- how these statements may be taken to signal an intention by SEEQ to give up the patent rights entirely.[64]

A more fundamental difficulty with the ALJ's waiver concept is the strong implication of leading Supreme Court and Federal Circuit patent cases that the concept of implied unilateral waiver does not exist. An early case of the United States Supreme Court, cited by the ALJ, sets forth an important qualification that permeates all implied license analyses, which is the only basis in law for derogation of a patent right:

> [implied license requires] language used by the owner of the patent, or any conduct on his part *exhibited to another* from which *that other* may properly infer that the owner consents to his use of the patent ... *upon which the other acts*, constitutes a license and a defense to an action for a tort.

DeForest v. United States, 273 U.S. 236, 241 (1927)(emphasis added). It is evident from this passage that licenses are not granted unilaterally to the public at large, but bilaterally to specific entities based on the patentee's conduct toward that particular entity.

Taken together, the *Aukerman* and *Wang* cases also seem to foreclose the possibility of unilateral waiver of the type found by the ALJ. The principle set forth in *Aukerman* is that mere neglect of one's patent rights does not result in a bar to prospective relief, absent some

---

[63] I am aware that at one point in the proceedings before JEDEC a representative of SEEQ is reported to have said words to the effect that the patent "was in the public domain." (FF 105). Two things should be noted about this alleged statement. First, assuming it was made, it evidently did not satisfy the concerns of those present on the JC 42.3 committee of JEDEC. The negotiations eventually broke down because the status of the patent rights were not sufficiently clear to the JC 42.3 committee members. (FF103). Second, the statement would have effect only as to those who were aware of it. *See generally* Restatement (Second) of Agency §§ 8, 27 & cmt. b (1958)(apparent authority of an agent to bind principal operative only as to those who learn of the representation).

[64] Even assuming that a waiver of the patentee's right to sue for infringement in a U.S. district court occurred, there is no evidence that the patentee's right to file a section 337 complaint against importation of infringing devices was ever discussed or contemplated. Actions under section 337 are separate and distinct from actions for patent infringement. 19 U.S.C. § 1337(a)(1).

misleading and hence inequitable conduct directed specifically to the accused infringer on which the infringer is entitled to rely.[65] That reliance is simply not present with respect to respondents/intervenor in this investigation. While the *Wang* case describes ways other than equitable estoppel to obtain an implied license, all of them are grounded on conduct by the patentee directed specifically toward the accused infringer. In the absence of such conduct, Atmel is not barred from altering previous enforcement practice and asserting its patent rights prospectively against these respondents and intervenor.

(B) The Appropriate Claim Construction With Respect To The '903 Patent

(1) Primary Circuit

The '903 patent presents an instance where the patentee explicitly defined one of the critical disputed claim terms, both generally and specifically, with respect to a non-volatile memory chip. In the "Summary of Invention" section of the patent, the patentee stated that memory devices containing the identification information "are placed adjacent that portion of the chip which performs the primary function of that circuit." Col. 1, lines 66-69. This language generally indicates that the claim term "primary circuit" means the circuitry that performs the primary task for which the semiconductor chip is designed, and excludes the auxiliary circuitry that is added to furnish the identification capability.

With respect to a non-volatile memory chip, the specification even more specifically defines the primary circuit:

> It is necessary that the data stored in the product information array 30 not interfere with the normal operation of the primary circuit on the chip, *i.e. the memory array 12 and associated decoders, gates and buffers.*

col. 3, lines 34-37 (emphasis added). This passage demonstrates that the patentee included everything but the product information array and the access circuitry in the definition of "primary circuit," and I find that this explicit definition of the patentee controls over any other meaning that might be attached to the claim term.[66]

---

[65] The facts of this case suggest an attempt by respondents/intervenor to take what is essentially a laches defense and bootstrap it into prospective relief, which *Aukerman* holds to be impossible. The only remedies available under section 337, of course, are exclusion orders and cease and desist orders, both of which are forms of prospective relief.

[66] *Boehringer Ingelheim Animal Health, Inc. v. Schering-Plough Corp.*, 984 F. Supp. 239, 246 (D.N.J. 1997)("where the patentee's meaning is clear, the court must adopt the special

(continued...)

In addressing this passage, however, the ALJ found that, from a grammatical standpoint, at least one comma is missing from the passage, *viz.*, the comma that should have been inserted after the term "i.e." He went on to find that a second comma should be inserted after the term "memory array 12," which would render the passage consistent with his interpretation that the primary circuit includes only the main memory array. Insertion of this missing comma creates two equally plausible interpretations of the claim term, he reasoned, and it was, therefore, appropriate to select the narrower interpretation.[67] (ID at 75).

I disagree with this analysis. That one comma may be missing in contradiction of some canon of punctuation does not, in my view, warrant inserting another comma in a different place, thereby changing the substantive meaning of a passage -- particularly in a situation where the patentee's meaning is clear.[68]

The ALJ's reasoning seems to have been based on the precept that, ordinarily, no circuit component can be part of two or more claim elements. Citing *In re Kelley*, 305 F.2d 909, 914 (CCPA 1962), the ALJ stated that a single structural element can be included in two separate claim elements only if it performs two separate functions. Having found that the specification of the '903 patent included the decoders in the access means, the ALJ found that nothing in the specification delineated how the access means could perform the claimed function of preventing access to the primary circuit if portions of the access means are included in the primary circuit. (ID at 71). The foregoing reasoning, however, contains both an error of law and an error of fact.

The *Kelley* case is an incomplete statement of the law. The dual function exception to the double recitation rule is but one of several exceptions. A more complete statement of the law of double recitation is found in *Palmer v. United States*, 423 F.2d 316, 319 (Ct. Cl.), *cert. denied,* 400 U.S. 951 (1970)(emphasis added):

> double recitation of elements of inventions does not necessarily render a claim vague and indefinite, *particularly if the claim is drafted in terms of means clauses* under 35 U.S.C. §112, *or* if an element performs more than one function *or* overlapping functions.

---

[66] (...continued)
definition of the term.")(citing *Vitronics, supra,* 90 F.3d at 1582 ("a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history.")).

[67] *Athletic Alternatives v. Prince Mfg. Co.*, 73 F.3d 1573, 1581 (Fed. Cir. 1996); *Ethicon Endo-surgery, Inc. v. U.S. Surgical Corp.*, 93 F.3d 1572, 1581 (Fed. Cir. 1996).

[68] *See, e.g., Becton Dickinson and Co. v. C.R. Bard, Inc.*, 922 F.2d 792, 799 n.6 (Fed. Cir. 1990)("Nothing in any precedent permits judicial redrafting of claims.")

This passage suggests that inclusion of components[69] in two or more claim elements is not only permissible in the context of means plus function claim elements, it is to be expected.

Furthermore, the ALJ's conclusion that the specification placed the decoders in the access means appears to have been based on a misreading of the patent. The portion of the patent specification quoted by the ALJ reads as follows:

> The *access to the memory* referred to above is provided through column decoder 14, row decoder 16 and column address gating 18, with the output from the array being presented via an output buffer 20.

Col. 2, lines 62-65 (emphasis added). In quoting this passage in FF 463, however, the ALJ inadvertently inserted the word "means" after the word "access," thereby changing the meaning of the passage. In the quoted passage, I find that the drafter of the '903 patent was merely describing the signal flow to access a particular location in memory. The passage has nothing to do with the *access means*, which is the circuitry that performs the claimed function of receiving external signals and selecting either the primary circuit or the product information array.

Thus, the ALJ's construction of the term "primary circuit" cannot be sustained. I conclude that the term "primary circuit" means any circuitry present in an integrated circuit chip before the addition of the rest of the circuitry that implements the invention.

(2) Product Information Array

The critical claim term to be construed in this element is the word "adjacent" in "product information array disposed on the semiconductor chip adjacent said primary circuit." The ALJ, referring to the preferred embodiment, found that it requires the product information array to be an extra row in the main memory matrix. I believe this finding to be an erroneous conclusion of law because it ignores the patentee's controlling definition of the primary circuit,[70] and it imports limitations into the claim from the preferred embodiment, which is

---

[69] In some cases, courts and parties use the term "element" to describe a component, which may have several elements or limitations in a patent law sense. "'Element" may be used to mean a single limitation, but it has also been used to mean a series of limitations which, taken together, make up a component of the claimed invention." *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1259 (Fed. Cir. 1989).

[70] The primary circuit is all the circuitry making up the memory device, not merely the memory matrix. Therefore, requiring the product information array to be adjacent a particular component of the primary circuit is overly restrictive.

generally impermissible.[71]

As the ALJ noted, the ordinary and accustomed meaning of "adjacent" is "close to; lying next to; lying near; adjoining." (ID at 78). All of these definitions indicate that the primary circuit and the product information array must be approximately contiguous. There is no suggestion in any of the meanings of this term that the two circuits may overlap. Use of the term "not interspersed" in the claim construction proposed in the review notice was intended to convey the notion that the product information array may not be simultaneously within and without the primary circuit.

It is for this reason that the Commission declined to review the ALJ's finding that claims 2-8 of the '903 patent are invalid. Claim 2, from which claims 3-8 depend, requires that the primary circuit be redefined to include only the memory matrix, which contradicts the explicit definition set forth in the specification. Furthermore, claim 2 requires that the product information array be *within* the primary circuit as properly defined, while claim 1 requires it to be adjacent or *without* the primary circuit. These claims are therefore fatally indefinite.

Upon review of the briefs, I am persuaded that the IA is correct that the word "interspersed" carries unintended connotations suggesting that the product information array needs to be broken up in order to be outside the meaning of the claim term. Clearly, a product information array could be a unified array and yet be placed within the primary circuit, which would violate the clear meaning of the term "adjacent." I would therefore modify the claim construction set forth in the notice of review by substituting the phrase "not overlapping" for "not interspersed" in order to more closely reflect the intended meaning of the term "adjacent." I interpret the term "adjacent" to mean that the memory devices necessary to contain the claimed product information are fabricated on the same integrated circuit chip as the primary circuit, lying near or next to the primary circuit, but not overlapping with the primary circuit.

Without citation to the specification or any other authority, Atmel argues that "adjacent" merely requires "that the product information array as a whole need only be 'near' some circuitry that is included in the primary circuit." (Atmel Br. at 173). It also argues that "adjacent" should be interpreted to mean "electrically near."[72] I disagree with these proffered interpretations. There is no evidence that the meaning of the term "adjacent" may be expanded in this manner; indeed, Atmel's suggestion seems to contradict the plain meaning of the term. If the claim drafter's intent was to include all arrangements near any portion of the primary circuit, he could and should have written "product information array adjacent the primary

---

[71] *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 867 (Fed. Cir. 1985). *See also American Permahedge, Inc. v. Barcana, Inc.*, 105 F.3d 1441 (Fed. Cir. 1997); *Electro Medical Systems v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054-55 (Fed. Cir. 1994); *Specialty Composites v. Cabot Corp.*, 845 F.2d 981, 987 (Fed. Cir. 1988).

[72] Atmel points to expert testimony that a circuit designer regards any location that adds an inordinate amount of capacitance to the output lines as being non-adjacent.

circuit *or any portion thereof.*" I also disagree with Atmel's definition based on the capacitance of the output line. The ALJ found that "adjacent" is not a term of art.[73]

(3) Access Means

Since this element is drafted in means plus function form, special rules of interpretation must be observed. At this stage of the analysis, it is necessary to identify, and if necessary, to interpret the function identified in the claim element. Comparison of the particular means disclosed in the specification with that present in an accused device to determine if the structures are equivalent is part of the infringement analysis to follow.[74]

"To meet a means-plus-function limitation literally, an accused device must (1) perform the *identical function claimed* for the means element, and (2) perform that function using the structure disclosed in the specification *or an equivalent structure* [citations omitted]."[75] Two things are evident from the *Intel* case. First, an infringement analysis in a means plus function context is a two step inquiry, in which the threshold question is whether the identical claimed function is performed in the accused device. The Federal Circuit has repeatedly employed this two pronged analysis.[76] Second, the function(s) that must be performed identically are defined by the claim language.

It follows that "*the first step* in interpretation of the [means plus function] claim is determination of the meaning of *the words used to describe the claimed function*, if such meaning is in dispute."[77] For this reason, the Commission first asked the parties to assume a

---

[73] FF 491.

[74] Several of the briefs erroneously suggest that the construction of certain disputed terms set forth in the review questions somehow disregards the structural analysis demanded by 35 U.S.C. § 112 ¶6. The review questions were structured to follow the requirements of section 112 ¶6, by addressing the issues in the order that is implicit in the statute and that the Federal Circuit has explicitly instructed us to follow.

[75] *Intel Corp. v. U.S. International Trade Commission*, 946 F.2d 821, 841 (Fed. Cir. 1991)(emphasis added).

[76] *See, e.g., Serrano v. Telular Corp.*, 111 F.3d 1578, 1582-83 (Fed. Cir. 1997)(more recent application).

[77] *Multiform Dessicants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1479 (Fed. Cir. 1998)(emphasis added); *See also Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.*, 1998 WL 239335 at *3 (Fed. Cir. 1998)("determination of the claimed function [is] a matter of construction of the specific terms in the claim"); *Valmont Industries, Inc. v. Reinke*

(continued...)

meaning for certain disputed terms critical to defining the claimed function. The Commission then asked the parties to analyze their accused devices, first from the standpoint of whether the identical function is performed, and second from the standpoint of whether the particular means employed is at least an equivalent of that disclosed in the patent specification.[78]

In this instance, the access means element claims three functions: (1) receiving a first signal that causes the access means to select the primary circuit, (2) receiving a second signal by means of a logic means that causes the access means to select the product information array, and (3) "preventing access" to the primary circuit while the product information array is selected. These claimed functions define the threshold inquiry of the infringement analysis.

Both Atmel and the IA correctly point out that defining first and second signals as including zero or the absence of any input sweeps too broadly. This overbreadth creates validity problems, which should be avoided in claim construction.[79]

The '903 patent teaches an overvoltage detection circuit that selects the output of either the product information array or the primary circuit, depending on whether a signal greater than the ordinary range of the power supply circuit is received. Therefore, the term "first and second signals" must be interpreted to require that one of the signals be in excess of the ordinary range of the power supply voltage of the semiconductor chip.

For a proper understanding of the third claimed function, one must interpret the term "preventing access." Some of the briefs argued that access to the primary circuit is not prevented in one circuit or another if it is possible to trace an electrical signal from any other claimed element into the primary circuit. It is important to remember, however, that the purpose of the invention is to enable a user to read either the data in the main memory or the product identification information by electrical interrogation of the integrated circuit chip. Allowing the information from both circuits to flow to the output pins at the same time would, at a minimum, yield unintelligible information, and perhaps even destroy the internal circuit devices.

In view of the foregoing facts, the patent drafter could not have intended the phrase "preventing access to said primary circuit" as setting up a barrier around the primary circuit across which no electrons from any other claimed element can penetrate. Rather, the access that is prevented is external access to the data contained within the memory matrix.

---

[77] (...continued)
Mfg. Co., Inc., 983 F.2d 1039, 1042 (Fed. Cir. 1993)("The accused device must also perform the identical function *as specified in the claims.*")(emphasis added).

[78] This sequence is established in the questions dealing with the '811 and '829 patents, which are a matched triplet, and is implicit in the questions dealing with the '903 patent, which simply inquire about infringement.

[79] *See, e.g., Carman Industries, Inc. v. Wahl*, 724 F.2d 932, 937 n.5 (Fed. Cir. 1983)(claims should be construed, if possible, so as to sustain their validity).

In order to suppress the output of the primary circuit in this manner, either a high or low logic signal must be received by a component of the primary circuit, typically a logic gate whose function is to suppress access to output leads. Thus, one can always trace some signal from the logic means into the interior of the primary circuit. That signal may even proceed through intermediate components of the primary circuit, such as logic gates and decoders, before reaching the internal component that suppresses the output of the memory array. Arguments that such "access" to the primary circuit negates infringement are inconsistent with a proper understanding of the claimed function of suppressing the output of the primary circuit.

(4) Output Means

The claim language speaks in terms of "providing signals *representative of* the information stored,"(emphasis added), which suggests some transformation occurs in the stored information. In view of this language, I believe the term "output means" should be interpreted to include only the output drive circuitry that transforms the signals constituting the stored information into a form suitable for interfacing with circuits external to the chip.

Some of the briefs argue as though the output means includes every component through which the output data signals pass as they proceed from the product information array to the output pins. Such arguments lose sight of the words used to describe the claimed function of providing representative signals. *See Chiuminatta, supra*, 1998 WL 239335 at *3 (structural aspects not related to recited function not part of claimed means).

(C) Whether The '903 Patent Is Valid Under The Above-Described Claim Interpretation

Several briefs argue that if the '903 patent is interpreted as set forth in the review notice, it is invalid by anticipation based on three patents: U.S. Letters Patent 4,055,802 to Panousis ("the Panousis patent"), U.S. Letters Patent 4,268,911 to Bell ("the Bell patent"), and U.S. Letters Patent 4,344,155 to Mollier ("the Mollier patent"). Winbond additionally argues that the '903 patent would be invalid as obvious in light of a combination of the Panousis patent, either U.S. Letters Patent 4,250,570 to Tsang or U.S. Letters Patent 3,753,244 to Sumilas, and the [[ ]].

(1) The Panousis Patent

The Panousis patent discloses two methods of obtaining identification information from a ROM chip. The first method is simply to place identification information in a row of memory and read it out with conventional addressing techniques. The second method uses transistors connected between the input address leads and ground. When the power supply leads are grounded, a negative voltage may be applied to the address leads and either one or two diode drops may be read by means of external resistors in a voltage divider network, or by

means of an external voltmeter.

Neither of the Panousis methods anticipates the '903 patent under the Commission's claim construction, for several reasons. First, without a circuit layout diagram, which is not disclosed in the Panousis patent, it is impossible to assess the adjacency relationship between the putative information array and the primary circuit. Second, in the transistor configuration, there is no output means that furnishes a representative signal capable of driving any logic device, as required by the correct claim construction. Indeed, one cannot even read the output of the transistor array without external circuitry, and such voltage as there is on the input address pins is not a 5 volt logic signal employed by the chip in normal operation. Furthermore, the diode networks have very little current drive capability -- certainly not enough to match the output drive specifications of the ROM chip, as required by the Commission's claim construction. Third, there is no access means including logic circuit means as taught by the '903 patent in either method disclosed in Panousis. Even assuming that the diode and voltage divider network could somehow be considered a logic circuit, it could not be considered an equivalent structure to the logic gates employed in the '903 patent. In the other method taught by Panousis, there is no logic circuit making any decision as to whether to access the information array or the primary circuit. Rather, the information is accessed through the address pins, like any other location in memory.

(2) The Bell and Mollier Patents

If neither the first nor the second input signal referred to in the '903 patent claims were required to exceed the normal power supply voltage, then the IA might be correct that both the Bell and Mollier patents anticipate those claims as construed in the review notice.[80] What most clearly differentiates the '903 patent from the Bell and Mollier references is the high voltage detection circuit disclosed in the '903 patent. There is no high voltage detection circuit or its equivalent in Bell or Mollier. Therefore, there is no anticipation of the '903 patent by Bell or Mollier under the correct claim construction, which requires that one of the signals received by the access means employ a voltage in excess of normal power supply voltage.

Winbond's obviousness analysis based on a combination of several references fails because it is impermissible to combine references without some teaching, motivation, or suggestion in the references themselves to make the combination.[81] Winbond points to no such

---

[80] Again, however, there is no circuit layout in Bell or Mollier to allow us to determine the adjacency relationship between the primary circuit and the product information array.

[81] *In re Gorman,* 933 F.2d 982, 986 (Fed. Cir. 1991) (and cases cited therein). *See also Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir.), *cert. denied,* 498 U.S. 920 (1990) (insufficient that prior art disclosed components of patented device either

(continued...)

teaching, motivation, or suggestion. It simply employs hindsight to argue that the combination could have been made.

(3) Conclusion

I conclude that the '903 patent, as interpreted according to the claim construction described above, is valid. None of the prior art references cited in the briefs anticipates the invention, and no combination of those references renders it obvious.

(D) Whether The Accused Devices Infringe The '903 Patent

SST does not contest infringement. It does not appear on the record that SST itself manufactures any of the accused devices.

Sanyo contends before the Commission that its circuits do not infringe the '903 patent claims at issue as interpreted by the Commission, and that Atmel presented no evidence of the layout of any of its devices. Sanyo also correctly asserts that its expert witness never admitted that its circuit layouts are identical to those of SST's devices.

In my view, Sanyo is precluded from raising these arguments at this juncture, however, by reason of the ALJ's groundrules under which the trial was conducted below. Judge Luckern's Rule 8(d) reads as follows (emphasis in the original):

> [Each pre-hearing brief shall contain a] statement of the issues to be considered at the hearing that sets forth *with particularity* a party's contentions on each of the proposed issues, including citations to legal authorities in support thereof. Any contention not set forth in detail as required herein shall be deemed abandoned, or withdrawn, except for contentions of which a party is not aware and could not be aware in the exercise of reasonable diligence at the time of filing the pre-hearing statements. Pursuant to this requirement, each of the parties *and the staff* shall take a position on the issues it is asserting no later than the filing of its prehearing statement.

Examination of Sanyo's pre-hearing brief reveals that the only statement contained therein relating to infringement is a statement attempting to incorporate by reference the other respondents' positions on infringement. Such reliance by incorporation of other parties'

---

[81] (...continued)
separately or used in other combinations; must be teaching, suggestion, or incentive to make combination made by inventor).

positions hardly constitutes setting forth an issue "with particularity."[82] Moreover, it is difficult to see how Sanyo can simply adopt other respondents' defenses to infringement if Sanyo's accused devices are different from the other respondents' accused devices, as Sanyo now asserts. While Atmel normally bears the burden of proof with respect to infringement, the ALJ's groundrule establishes that this burden accrues only with respect to issues set forth with particularity in the pre-hearing briefs.

The ALJ's groundrule is a salutary means for focusing the issues for trial, and for encouraging respondents to think through their arguments and formulate them with particularity before trial. This is especially true with respect to respondent-specific defenses like infringement. I therefore conclude that Sanyo has waived any right to contest infringement.

The accused Winbond devices store the product information [[ ]][83] [[ ]][84] [[ ]] Contrary to Winbond's assertions, there is evidence that Winbond's devices contain circuits that are at least equivalent to the circuits of the '903 patent for the access means and the output means.[85] Since this evidence is essentially unrebutted,[86] I find that Winbond infringes the '903 patent.

It is clear from the layout drawings of the accused Macronix devices,[87] however, that the memory devices constituting the product information array [[ ]] For this reason, I find that Macronix does not infringe the '903 patent.

---

[82] Sanyo should not be heard to argue that it could not have anticipated the Commission's claim construction, and thus should be excused from the effect of the ALJ's groundrule. The very claim language in this case makes it obvious that the circuit layouts of the accused devices would be an issue, regardless of the construction of particular claim terms.

[83] Referring to a Sanyo document, [[ ]]

[84] RPX 17 and RPX 18.

[85] CX50; CX86; CX127 at 1-15.

[86] Winbond's comments in its reply brief are addressed to the ALJ's claim construction, not the proposed claim construction of the review notice.

[87] RX230, RX416, and RPX58B

(E) Whether Atmel Has Established A Domestic Industry With Respect To The '903 Patent

Section 337 requires, as a condition of relief, that a domestic industry exists that exploits the patent at issue.[88] Satisfying any of three statutory criteria establishes the requisite domestic industry.[89]

The domestic industry requirement is written in the present tense, and therefore requires that the domestic industry either currently exist or be in the process of being established. This requirement is jurisdictional. The date for determining whether the industry exists is the filing date of the complaint.[90]

The domestic industry requirement of section 337 has two prongs: the *technical prong*,

---

[88] The pertinent statutory language is as follows:

> (2) [The prohibitions of the statute] apply only if an industry in the United States, relating to the articles protected by the patent, copyright, [registered] trademark, or mask work concerned, exists or is in the process of being established.
>
> (3) For purposes of paragraph (2), an 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, copyright, trademark, or mask work 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.A. § 1337(a)2-3 (West 1998 Supp.).

[89] *Certain Integrated Circuit Telecommunications Chips and Products Containing Same, Including Dialing Apparatus*, Inv. No. 337-TA-337, USITC Pub. 2670, Initial Determination at 94 (Aug. 1993).

[90] *Texas Instruments v. United States International Trade Commission*, 988 F.2d 1165, 1181 (Fed. Cir. 1993); *Bally/Midway Mfg. Co. v. United States International Trade Commission*, 714 F.2d 1117, 1121 (Fed. Cir. 1983).

and the *economic prong*. The former requirement is that the patent claims cover the articles of manufacture relied on to establish the domestic industry, i.e., that the complainant be practicing its own patent(s). The latter requirement is that one or more of the economic activities specified in section 337(a)(3)(A)-(C) be in place with respect to the articles identified by the technical prong.

The ALJ's finding that the Atmel AT29 parts practice the '903 patent[91] is sufficient to satisfy the domestic industry requirement with respect to that patent. This finding is not challenged in any of the review petitions.

The ALJ further found, with respect to the '903 patent, that the technical prong of the domestic industry requirement is satisfied only by the Atmel AT29 parts. This conclusion is apparently based on the fact that [[ ]] in the AT27 and AT49 parts.[92] Given his construction of the term [[ ]] placed the AT27 and AT49 parts outside the coverage of the '903 claims.

While the IA is correct that the memory devices in the AT27 and AT49 parts are [[ ]][93]

I also believe that there is sufficient evidence that these parts contain the other elements of the '903 patent. Explaining various schematics, Atmel's expert testified that all of the circuit means are present in these devices, and that they are at least equivalent to the corresponding means disclosed in the '903 patent.[94] This evidence is not seriously contested by respondents and intervenor, who merely characterize it as "insufficient."

I therefore find that the AT27 and AT49 parts also practice the '903 patent. This finding does not alter the ALJ's ultimate conclusion that Atmel has established a domestic industry; it only provides additional support for that conclusion.

Issued: July 9, 1998

---

[91] FF 760-764.

[92] FF 761, 762.

[93] *See* CX139-CX144.

[94] *See* CX126 at 8-44.

STATEMENT OF COMMISSIONER CAROL T. CRAWFORD

ISSUED ON 9/28/98

UNITED STATES INTERNATIONAL TRADE COMMISSION

In the Matter of	)	
	)	
CERTAIN EPROM, EEPROM, FLASH MEMORY, AND FLASH MICROCONTROLLER SEMICONDUCTOR DEVICES, AND PRODUCTS CONTAINING SAME	)	**Inv. No. 337-TA-395**

STATEMENT OF COMMISSIONER CAROL T. CRAWFORD

The Commission issued the confidential version of its opinion in the above-captioned section 337 investigation on July 9, 1998. In that opinion, I joined with Chairman Bragg in finding, *inter alia*, that complainant Atmel Corporation's '903 patent was unenforceable for failure to name an inventor. That finding had the effect of reversing the ruling of the presiding administrative law judge, the Honorable Paul J. Luckern, in his final initial determination ("ID") that the '903 patent was not unenforceable for failure to name an inventor.

The Commission's opinion contained the following passage at page 13 concerning the inventorship issue:

> Since inventorship is a disfavored technical defense, [footnote omitted] that must be proven by clear and convincing evidence, we are ordinarily reluctant to go behind an ALJ's findings on this issue. Since the ID issued, however, the Federal Circuit has issued an opinion that answers the question posed [citing Ethicon, Inc. v. United States Surgical Corp., 135 F.3d 1456 (Fed. Cir. 1998)].

This passage was drafted by the Commission's Office of the General Counsel, and I have since learned that it is erroneous. The Ethicon case was in fact decided by the Federal Circuit prior to

issuance of the administrative law judge's ID. Thus the administrative law judge was able to consider Ethicon in making his decision, and in fact cited to Ethicon several times in his ID.

In view of this error by the Office of the General Counsel, and given the high degree of deference that I strongly believe should be accorded to the conclusions of an administrative law judge, I would reverse my vote on the inventorship issue were I now to decide the issue. Moreover, my vote on this issue was outcome determinative. Therefore the Commission decision would have been different had the General Counsel provided me accurate information. Because the parties appear to have taken action in response to the Commission's determination, I regard it as my responsibility to inform them of what I consider to be an incorrect conclusion regarding the ID. Accordingly, I am instructing the Commission's Secretary to serve a copy of this statement on counsel for each of the parties in this investigation.

Issued: September 28, 1998