

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF PENNSYLVANIA**

CARNEGIE MELLON UNIVERSITY,

Plaintiff,

v.

MARVELL TECHNOLOGY GROUP, LTD.,
and MARVELL SEMICONDUCTOR, INC.,

Defendants.

Civil Action No. 2:09-cv-00290-NBF

Hon. Nora B. Fischer

**MARVELL'S REPLY IN SUPPORT OF ITS
MOTION FOR JUDGMENT ON LACHES**

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I. CMU FAILS TO REBUT MARVELL'S FACTUAL PREDICATE FOR LACHES

A. CMU Had Knowledge Of Allegedly Infringing Activities In 2001

Contrary to CMU's argument (Dkt. 823, hereinafter "Opp."), the record establishes that CMU knew of Marvell's work in the read channel space by 1998 and suspected Marvell's supposed infringement by 2001, but unreasonably failed to inquire of Marvell in 2001 or to file suit within six years, thereby triggering a presumption of laches. *First*, CMU ignores (Opp. at 4-5) that Dr. Kavcic's **1998** interactions with Marvell establish that CMU was aware of Marvell's work in the area of read channel detectors and able to contact Marvell about those detectors, belying its assertion that it lacked a basis for later inquiry. (DX-1023; *see also* Dkt. 803, at 1; Dkt. 804, at 2, 8-9.)

Second, CMU improperly discounts (Opp. at 5-7) Dr. Moura's notes and testimony. CMU admitted in its proposed findings of fact that Dr. Moura's 2001 meeting notes stated that "the patent is the 'optimal' solution and that '**people are working on suboptimal**, suggesting ways around[;] simplifying from ideas of work but **adding little bells and whistles**; people are trying to get around either because of patent or simpler solution.'" (CMU FF ¶11; DX-1522.) CMU offers no reason why adding "little bells and whistles" to suboptimal detectors would not have constituted "potentially infringing activities" given CMU's expansive infringement claims.¹ And Dr. Moura's testimony too shows that CMU first suspected infringement in 2001 (11/29/12 Tr. at 96:14-97:4). While he acknowledged that those rumors became "much stronger in 2003 than in 2001" (*id.* at 96:14-17), when asked if he believed Marvell was infringing in 2001, Dr. Moura responded, "I'm hearing rumors. I have no idea what to do with the rumors. So the best

¹ *See Comcast Cable Commc'ns Corp. v. Finisar Corp.*, No. 06-04206, 2008 WL 170672, at *4 (N.D. Cal. Jan. 17, 2008), *aff'd sub nom.*, *Comcast Cable Commc'ns, LLC v. Finisar Corp.*, 319 F. App'x 916 (Fed. Cir. 2009).

thing to do is hope that they will come to their senses and license our patent that just came out.” (*Id.* at 97:5-12.) Dr. Moura also responded that, although he did not have “concrete proof” of Marvell’s infringement in 2001, and “cannot say either way, yes or no. *I suspect.*” (*Id.* at 96:22-97:4.) And Dr. Moura’s April 2003 email, in reporting that Dr. Kavcic had received “*more* independent confirmations” that the chip makers were implementing his media noise detector (DX-212, at 1), reflected that there were *prior* confirmations, as embodied in Dr. Moura’s 2001 meeting notes. (DX-1522.) When asked what CMU did in 2003 to investigate, Dr. Moura responded: “[w]e went looking *back* for your materials; they had disappeared from the web.” (11/29/12 Tr. at 95:15-19.)²

B. CMU Did Not Exercise Diligence Under The Circumstances

CMU asserts (Opp. at 12-13) that it satisfied its obligation to make a reasonably diligent inquiry by sending a single email to Dr. Kryder (DX-214) and a friendly letter (P-422) (including no allegation of infringement) to Marvell (along with the rest of the industry).³ But *reasonable* diligence in this case required CMU to either raise or else investigate its infringement concerns with Marvell. Besides being inadequate, CMU’s inquiry with Seagate about Marvell’s chips was improper. CMU’s legal team should not have attempted to solicit information about Marvell’s confidential chip design from a third party (Marvell’s customer) without first seeking Marvell’s permission. In any event, Dr. Kryder was neither able to confirm nor deny infringement by

² CMU treats Marvell’s ‘585 patent as its first indication of potential infringement. (Opp. at 14.) Because CMU has insisted that Marvell’s ‘585 is irrelevant to the issue of infringement (*see, e.g.*, Dkt. 495, at 1-2; 12/11/12 Tr. at 288:4-13), it is estopped from taking the contrary position now. In any event, CMU’s own privilege log disproves its claim. Three months *before* Marvell’s patent even issued, K&L Gates communicated with CMU’s General Counsel in “anticipation” of the “CMU/Marvell litigation.” (P-CMU 6480-86.)

³ While CMU disputes that the letter was “friendly,” CMU’s own Mr. Mahler labeled it such. (Milowic Decl. Ex. A (screenshot of the metadata for P-422, identifying the Filename as “Friendly Letter”).) And the letter (P-422) simply offers to license CMU’s patent rather than making any accusation of infringement, demand for relief, or threat of litigation.

Marvell, so he recommended that CMU send a letter notifying the entire industry to set up litigation damages (the litigation that CMU now asserts it could not have foreseen). (DX-214.)

C. CMU Fails To Show Why The Exercise Of Reasonable Diligence Would Not Have Been Fruitful

CMU lacks any basis for its argument that further diligence would have been futile (Opp. at 9-10). CMU argues that Marvell had a “policy of secrecy” that effectively released CMU from any duty of inquiry. But a patentee is obliged to inquire diligently⁴ and the defendant’s supposed “secrecy” cannot thwart any such inquiry. For example, in *Ronald A. Smith & Assocs. v. Hutchinson Tech. Inc.*, No. 01-03847, 2002 WL 34691677 (N.D. Cal. Aug. 16, 2002), the court rejected Smith Associates’ argument that Hutchinson’s trade secret policy prevented it from learning of infringement, because Smith “did not pursue its investigation far enough in 1995 to receive such a denial of information or access.” *Id.* at *9.⁵ CMU relies (Opp. at 7, 9) on *Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, 114 F.3d 1547, 1559 (Fed. Cir. 1997), in questioning whether Marvell would have disclosed that it was infringing, but *Eastman Kodak*

⁴ See, e.g., *Rockwell Int’l Corp. v. SDL, Inc.*, 103 F.Supp.2d 1192, 1199 (N.D. Cal. 2000) (comparing cases where plaintiff discharged inquiry duty by contacting the defendant with those where plaintiff failed to undertake reasonable inquiry).

⁵ CMU cites (Opp. at 9) *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, No. 99-cv-274, 2004 WL 1305849, at *18 (D. Del. Jun. 9, 2004), *aff’d in part, vacated in part, rev’d in part*, 425 F.3d 1366 (Fed. Cir. 2005), to suggest that a defendant “cannot cloak its activities in secrecy and simultaneously accuse the patent holder of failing to... protect its rights.” There, unlike here, Union Carbide made direct inquiry of Shell, which Shell rebuffed: “Union Carbide’s decision to pursue its suspicion **by directly inquiring of Shell in 1995** was consistent with a patentee exercising reasonable diligence.” *Id.* at *19 (emphasis added). CMU also relies on *Ultimax Cement Mfg. Corp. v. CTS Cement Mfg. Corp.*, 587 F.3d 1339 (Fed. Cir. 2009), but overlooks that, on remand, the district court **found laches** despite the patentee’s alleged inability to reverse engineer the accused product to determine infringement, citing facts paralleling those here. *Ultimax Cement Mfg. Corp. v. CTS Cement Mfg. Corp.*, 856 F.Supp.2d 1136, 1152, 1153-54, 1156 (C.D. Cal. 2012). Finally, CMU cites *Cunningham v. Pettigrew*, 169 F. 335 (8th Cir. 1909), which held it unreasonable to require a defrauded party to inquire of “the perpetrators of the fraud” to determine the existence of the concealed facts. *Id.* at 342-43. There is no evidence here that Marvell *defrauded* CMU by concealing the facts of its infringement.

hinged upon Goodyear's "*denial of infringement upon inquiry*" by Eastman, not merely upon a "policy of secrecy." As the Court explained in *Crown Packaging Tech., Inc. v. Rexam Beverage Can Co.*, 679 F. Supp. 2d 512 (D. Del. 2010), "few patentees begin infringement actions armed with admissions of infringement," *id.* at 525, and *rejected* Rexam's argument that it was implausible that Crown "would have admitted infringement in response to an inquiry from Rexam even though it denies infringement now." (Milowic Decl. Ex. B (Rexam Brief in Opposition to Partial Summary Judgment on Laches, at 23).)

Here, CMU never directly inquired about Marvell's suspected infringement or how its chips operate and thus cannot now assert that such an inquiry would have been futile. Moreover, contrary to CMU's suggestions (Opp. at 10-11), the evidence shows that Marvell would have shared information about its products with CMU:

- Marvell shared confidential information about the operation of its circuits with its competitor (Freescale) and would have had no difficulty sharing corresponding information with a non-competitor university such as CMU. (Dkt. 802-1 (Sutardja Affidavit), at ¶ 14.)
- As Marvell's former counsel, Mr. Gloss, testified, in the 2003 time frame, Marvell responded favorably to licensing inquiries from IBM and Agilent, engaged in negotiations with both companies, and paid for licenses to both. (Milowic Decl. Ex. C (12/21/2010 Dep. of M. Gloss at 37:23-40:21, 43:8-21).)
- CMU asserts (Opp. at 10) that Marvell failed to respond to a letter from Fujitsu, but the record does not indicate whether or in what form Marvell's in-house counsel, Mr. Janofsky, may have responded to Fujitsu, nor did CMU seek to depose Mr. Janofsky in order to learn the answer. Given Fujitsu's request for a response by the end of the month (P-477), the absence of any follow-up letter from Fujitsu, and Fujitsu's continued purchasing of chips from Marvell, the more natural conclusion is that Fujitsu received no contrary response.⁶

⁶ The Fujitsu letter is also far from the warning of infringement that CMU makes it out to be. The letter states, "it seems that these patents *might* be related to read channel." (P-477.) Even a cursory review of the patents by Fujitsu, however, would have revealed that the patents *definitely* relate to the read channel.

CMU's attack on Dr. Wu (Opp. at 10) likewise misses the mark.⁷ Contrary to CMU's assertion, Dr. Wu did not testify that he would "never" tell CMU about Marvell's circuits (for instance, even if requested through counsel in an attempt to resolve an infringement dispute), but merely that he would not ordinarily tell Dr. Kavcic or CMU what was in Marvell's circuits. (12/12/12 Tr. (Wu) at 63:8-21.)⁸

CMU's argument (Opp. at 5-7 & n.3) that Dr. Moura's notes did not involve "potentially infringing activities" cannot be squared with the verdict in its favor on infringement. In any event, the expansiveness of CMU's theory must carry over to analyzing laches as a defense. *Comcast Cable*, 2008 WL 170672, at *4 ("Under Finisar's expansive view of the matter, Finisar has no excuse for being unaware that Comcast was allegedly infringing back in 1998.").

Finally, CMU seems to argue (Opp. at 7-8) that Marvell came to consider its technology "must have" only upon obtaining confidential documents from Marvell. But long before CMU ever obtained any confidential document from Marvell, both Drs. Moura and Kavcic memorialized their beliefs that their technology had been adopted as an industry standard (*see* Dkt. 802-3, at KAVCIC 002266 (Dr. Kavcic's Harvard memo dated 2004, even before the advent of perpendicular recording); DX-212), and CMU represented as much to this Court in its opposition to Marvell's motion to transfer (Dkt. 33, at 5). Thus, the expansiveness of CMU's theory should dispel any notion that CMU could have perceived "little bells and whistles" as

⁷ Equally without merit are CMU's arguments that counsel for Marvell denied having simulator source code and tried to hide its firmware. These arguments are addressed in Marvell's opposition to CMU's motion for attorney's fees. (Dkt. 835, at 12-13.)

⁸ CMU makes much (Opp. at 10) of Dr. Wu's reference to Coca Cola's formula in explaining what he considers to be a trade secret. (12/12/12 Tr. (Wu) at 62:24-63:7.) From this reference, CMU argues that Marvell would never share the circuitry with CMU, even if asked. But Marvell *has* shared confidential information about the operation of its circuits with its competitor (Freescale) under a non-disclosure agreement (Dkt. 802-1, at ¶ 14), and Marvell *did* permit the publication of its circuits at trial.

obviating infringement. *Forest Labs., Inc. v. Abbott Labs.*, No. 96–CV–159, 1999 WL 33299123, at *16 n.10 (W.D.N.Y. Jun. 23, 1999) (plaintiff’s delay not excused where plaintiff originally may not have believed accused product infringed, but took a different position before the court), *aff’d*, 239 F.3d 1305 (Fed. Cir. 2001).⁹

II. MARVELL HAS BEEN PREJUDICED BY CMU’S UNREASONABLE DELAY

CMU fails in each of its attempts to escape the undeniable prejudice to Marvell from its delay. *First*, as Marvell explained in its opposition to CMU’s motion to strike the affidavits of Drs. Sutardja and Wu, respectfully incorporated by reference herein (Dkt. 844), had CMU sued in 2001 and obtained a judgment against Marvell, Marvell would not have invested in NLD as it did. (*Id.* at 5-8.) CMU does not deny this but rather asserts (Opp. at 16-17) that Marvell’s failure to remove the accused technology when sued in 2009 shows that Marvell would not have abandoned the MNP or NLD technology if sued earlier. But this misses the point: had CMU sued *and won*, by 2008 when Marvell launched its iterative coding chips (which provided much more SNR gain), Marvell certainly would not have included the NLD feature.¹⁰

⁹ Dr. Bajorek also testified that Marvell had to adopt the industry standard in 2001 to avoid going out of business, (12/4/12 Tr. at 66:17-67:4, 140:16-24), and that CMU’s patented technology is “the only technology we know of that combats media noise of the type that was impeding progress in the industry,” (*id.* at 140:19-20).

¹⁰ CMU is incorrect to assert (Opp. at 17) that the *State Contracting* case is “remarkably similar” to the facts here, for it fails to note that the patentee there sent notices of the patents *and of infringement* to each of the defendant contractors within two to four years of its patent’s grant. (Milowic Decl. Ex. D (Answer Brief of Cross-Appellants/Appellees, at 37).) Similarly, both *Humanscale* and *Fifth Third* are inapposite because both companies were on actual notice of potential infringement during the laches period. *Humanscale* failed to show prejudice because it made the business decision to not alter their products even though *CompX* had previously sued them on the same patents and the prior case had been dismissed with leave to re-file. *Humanscale Corp. v. CompX Int’l Inc.*, No. 3:09-cv-86, 2010 WL 3222411, at *13 (E.D. Va. Aug. 16, 2010). *Fifth Third* failed to show prejudice because the parties were engaged in “frequent,” “continuous,” and “bilateral” licensing negotiations for seven years. *In re Katz Interactive Call Processing Patent Litig.*, 882 F. Supp. 2d 1123, 1146 (C.D. Cal. 2010).

Second, as to evidentiary prejudice, CMU incorrectly faults Marvell (Opp. at 20) for not specifying what the potentially critical missing lab notebooks and emails of Drs. Kavcic and Moura would have shown, for “a party need not identify with precision what evidence it is now unable to offer in his defense in order to show evidentiary prejudice.” *Odetics, Inc. v. Storage Tech. Corp.*, 919 F. Supp. 911, 922-23 (E.D. Va. 1996) (finding evidentiary prejudice where defendant identified a category of missing documents and testimony that made its defense “somewhat less” than full and fair), *laches finding not contested on second appeal*, 185 F.3d 1259, 1272 (Fed. Cir. 1999). “To require more would set an insurmountably high standard for showing evidentiary prejudice.” *Id.*¹¹

¹¹ Although their specifics may never be known (because of CMU’s delay), the inventors’ documents from the time of conception are inherently critical—these documents could go to inventorship, conception, inequitable conduct, enablement, written description, and invalidity. In its opposition, CMU points to only a single non-substantive email from the files of Dr. Kavcic, along with two non-substantive emails and a post-conception PowerPoint presentation from Dr. Moura, and was unable to surface any documentary evidence of Dr. Moura’s contributions to the conception of the invention. The faded memories of CMU’s witnesses (*e.g.*, Dr. Kryder) identified in Marvell’s opening brief (Dkt. 804, at 17-18 & n. 16) obviously go to the issues of the importance and value of the invention and reasonable royalty. Had CMU sued earlier, the Court and the jury would have had the benefit of their contemporaneous statements rather than disclaimers reporting their lack of recollection. CMU also does not dispute that Dr. Kavcic’s 1998 emails with Marvell were omitted from Dr. Kavcic’s production. These emails could support an estoppel or acquiescence defense, because it would be inequitable, for example, for CMU to encourage Marvell to use its invention without disclosing it had sought a patent on it.

Similarly, recollection by the prosecuting attorneys is critical to issues relating to inequitable conduct, enablement, written description, and invalidity. *See Thomas v. Echostar Satellite L.L.C.*, No. 3:05-cv-494, 2006 WL 3751319, at *4 (W.D.N.C. Dec. 19, 2006) (finding evidentiary prejudice based on the prosecuting attorney having no “independent recollection of the prosecution”). Here, the “lead prosecuting attorney” of both of the asserted patents, Mr. Jonathan Parks, repeatedly admitted that he did not recall basic information regarding the prosecution of the asserted patents. (Milowic Decl. Ex. E (7/21/10 Dep. of Parks, at 6:2-8, 40:1-41:19, 50:14-24).) Finally, CMU ignores that Dr. Wolf believed the patents were invalid not based only on the disclosure of variable tap weights, but based on the further modified metric in Worstell. (Dkt. 220 Ex. 9, at ¶25, Table D, p. 3, Table G, p. 2.)

Third, CMU maintains (Opp. at 15) that a delay of three or four years should be reasonable as a matter of law absent misleading conduct by the plaintiff. But CMU's delay in this case far exceeds three or four years, and courts have found shorter periods to be unreasonable, even absent misleading conduct. *See, e.g., Altech Controls Corp. v. E.I.L. Instruments, Inc.*, 33 F.Supp.2d 546, 554 (S.D. Tex. 1998) (concluding that laches defense applied to one patent where delay was less than two years and three months); *Odetics*, 919 F. Supp. at 923-24 (finding laches applicable in view of three-year delay). In any event, if the patentee's misleading conduct were required, it is shown by the fact that Dr. Kavcic touted his invention to Marvell in 1998 for purposes of seeking employment while omitting to mention that CMU sought to patent the invention, and that CMU failed to raise infringement with Marvell prior to filing suit.

III. CMU'S LACHES IS NOT EXCUSED BY SUPPOSED WILLFULNESS

Contrary to CMU's final suggestion (Opp. at 21-22), its willfulness allegations do not negate laches. Marvell has not willfully infringed in this case (Dkt. 834), but in any event, "willful infringement, by itself, is insufficient to preclude application of the laches defense." *Odetics, Inc. v. Storage Tech. Corp.*, 14 F. Supp. 2d 800, 806 (E.D. Va. 1998) (collecting cases and quoting *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.3d 1020, 1033 (Fed. Cir. 1992) (plaintiff must prove that "the infringer has engaged in *particularly egregious* conduct [that] would change the equities *significantly* in plaintiff's favor.")). Because of CMU's failure to pursue its claims with diligence, the equities militate a finding of laches.¹²

¹² Because laches is an issue for the Court, and the Court has requested proposed findings of fact and conclusions of law, along with supplementation of the evidentiary record, Marvell respectfully filed its motion pursuant to Rule 52(c). *See I/P Engine, Inc. v. AOL, Inc.*, No. 2:11-cv-512, 2012 WL 5880265, at *1 (E.D. Va. Nov. 20, 2012) (granting motion for judgment on laches under Rule 52(c), "because laches is an equitable defense to be resolved as to both fact and law by the Court, a Rule 50(a) motion is inappropriate from either party").

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Respectfully submitted,

/s/ John E. Hall

/s/ Edward J. DeFranco

John E. Hall
Timothy P. Ryan
ECKERT SEAMANS CHERIN &
MELLOTT, LLC
U.S. Steel Tower
600 Grant Street, 44th Floor
Pittsburgh, PA 15219
Phone: (412) 566-6000
Fax: (412) 566-6099
jhall@eckertseamans.com
tryan@eckertseamans.com

Edward J. DeFranco (*pro hac vice*)
Kathleen M. Sullivan (*pro hac vice*)
Faith Gay (*pro hac vice*)
Raymond Nimrod (*pro hac vice*)
David Radulescu (*pro hac vice*)
Derek L. Shaffer (*pro hac vice*)
QUINN EMANUEL URQUHART & SULLIVAN, LLP
51 Madison Avenue, 22nd Floor
New York, New York 10010
Phone: (212) 849-7000
Fax: (212) 849-7100
eddefranco@quinnemanuel.com

Steven G. Madison (*pro hac vice*)
QUINN EMANUEL URQUHART & SULLIVAN, LLP
865 S. Figueroa St., 10th Floor
Los Angeles, California 90017
Phone: (213) 443-3000
Fax: (213) 443-3100
stevemadison@quinnemanuel.com

Kevin P.B. Johnson (*pro hac vice*)
Melissa Baily (*pro hac vice*)
QUINN EMANUEL URQUHART & SULLIVAN, LLP
555 Twin Dolphin Drive., 5th Floor
Redwood Shores, California 94065
Phone: (650) 801-5000
Fax: (650) 801-5100
kevinjohnson@quinnemanuel.com

*Attorneys for Defendants, Marvell Technology Group,
Ltd. and Marvell Semiconductor, Inc.*

CERTIFICATE OF SERVICE

I hereby certify that on April 12, 2013, the foregoing was filed electronically on ECF. I also hereby certify that on April 12, 2013, this filing will also be served on counsel for CMU by electronic mail.

/s/ John E. Hall

John E. Hall
Timothy P. Ryan
ECKERT SEAMANS CHERIN & MELLOTT, LLC
U.S. Steel Tower
600 Grant Street, 44th Floor
Pittsburgh, PA 15219
Phone: (412) 566-6000
Fax: (412) 566-6099
jhall@eckertseamans.com
tryan@eckertseamans.com

David C. Radulescu (*pro hac vice*)
QUINN EMANUEL URQUHART & SULLIVAN, LLP
51 Madison Avenue, 22nd Floor
New York, New York 10010
(212) 849-7000 Telephone
(212) 849-7100 Facsimile
davidradulescu@quinnemanuel.com

*Attorneys for Defendants,
Marvell Technology Group, Ltd. and
Marvell Semiconductor, Inc.*