

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

CARNEGIE MELLON UNIVERSITY,)	
)	
Plaintiff,)	
v.)	Civil Action No. 2:09-cv-00290-NBF
)	
MARVELL TECHNOLOGY GROUP, LTD.,)	
and MARVELL SEMICONDUCTOR, INC.,)	
)	
Defendants.)	

**PLAINTIFF CARNEGIE MELLON UNIVERSITY’S SURREPLY MEMORANDUM IN
OPPOSITION TO MARVELL’S MOTION FOR JUDGMENT ON LACHES**

I. INTRODUCTION

Marvell does not contest that CMU (1) did not have actual knowledge of Marvell's infringing conduct, and (2) could not have discovered Marvell's infringement through inspection or testing of the Accused Chips. Marvell also cannot point to a single public document dated prior to the issuance of its '585 patent that disclosed how the Accused Chips operated, and, even as to that patent, Marvell at times denies it covers its MNP-type chips. Accordingly, Marvell's unreasonable delay case rests on the dubious propositions that CMU had to do more than send the August 2003 letter (which Marvell ignored), and that, if confronted, Marvell would have freely disclosed its infringing activity. The law does not require more and the facts do not support Marvell's position. Likewise, Marvell's prejudice claim requires the Court to (1) disregard Marvell's years of inaction in favor of conjecture, and (2) reward Marvell for not having conducted full discovery of its (alleged) defense. Finally, as a copyist who failed to get an opinion of counsel, Marvell is not entitled to a finding of laches.

II. THERE IS NO BASIS TO IMPOSE THE SIX-YEAR PRESUMPTION

A. There Is No Link Between Dr. Kavcic's 1998 Communications with Nersi Nazari and the Laches Clock

Marvell concedes, as it must, that Dr. Kavcic's 1998 communications with Nersi Nazari did not put CMU on constructive notice of Marvell's (then non-existent) infringement or give rise to a duty to inquire.¹ *See* Dkt. 854 at 1. Unable to legitimately link those communications to the laches inquiry, Marvell now appears to assert that CMU's general awareness (in 1998) of Marvell's presence in the read-channel industry is somehow legally relevant. It is not, as the law does not obligate patentees to treat all members of the pertinent industry as potential infringers to avoid a finding of laches. *See, e.g., Wanlass v. Fedders*, 145 F.3d 1461, 1465 (Fed. Cir. 1998) (imposing a duty on patentees to "monitor" the entire industry by, *e.g.*, "periodically testing all others' products," "would be unreasonable").

In any event, Dr. Nazari told Dr. Kavcic that Marvell was not using his invention, *see* Dkt.

¹ *See* Dkt. 823 at 4-5 (citing cases holding, as a matter of law, that the laches period cannot begin to run until the patent issues and infringement begins).

823 at 5, which is undeniably true (Marvell did not start to use the CMU invention until March 2001). Thus, the 1998 communications are irrelevant. *See Intirtool, Ltd. v. Texar Corp.*, 369 F.3d 1289, 1298 (Fed. Cir. 2004) (patentee does not have a “burden of policing [the infringer’s] subsequent conduct because of [its] speculative comments during a single phone conversation”).

B. CMU Had No Duty to Inquire at Any Point Prior to the Critical Date of March 6, 2003

1. *The May 2001 Meeting Notes Did Not Impose a Duty to Inquire*

Dr. Moura’s May 16, 2001 meeting notes do not identify *any* party (much less Marvell) as a potential infringer. DX-1522. In fact, at trial, Marvell argued that these notes were evidence that in May 2001, CMU did not believe that *anyone*, including Marvell, was using CMU’s invention. 12/20/12 Tr. at 71:1-10. Marvell, however, now asks this Court to believe the opposite, *i.e.*, that these notes show in May 2001, CMU should have known that Marvell *was* using CMU’s invention.² Marvell’s reversal is disingenuous and flies in the face of common sense and the notes themselves. The notes show that those in attendance were brainstorming about “how to influence manufacturers... to *change chip*” and *adopt* CMU’s invention. Dkt. 823 at 5 (emphasis added); *see also* Tr. 11/29/12 at 85. If CMU believed that the industry was using the invention, there would be no need for the industry to “change” chips. CMU’s contemporaneous letters to IBM and Seagate confirm the plain language and common sense interpretation of the notes. DX-182; DX-185.³

Rather than squarely addressing these documents, Marvell implies (incorrectly) that CMU bears the burden of proving that Dr. Moura’s notes are *not* evidence that CMU knew of Marvell’s infringement. Dkt. 854 at 1. But, *Marvell bears the burden* of proving that the presumption of laches applies. *See, e.g., Hemstreet v. Computer Entry Sys. Corp.*, 972 F.2d 1290, 1293 (Fed. Cir.

² Marvell’s assertion that “CMU’s argument...that Dr. Moura’s notes did not involve ‘potentially infringing activities’ cannot be squared with the verdict in its favor on infringement” (Dkt. 854 at 5) is nonsensical because it assumes that the verdict and CMU’s knowledge (or lack thereof) of Marvell’s infringing activities in 2001 are mutually exclusive. They are not. CMU did not rely on these notes at all during trial.

³ Even Marvell’s cherry-picked quotations from the notes show that CMU was not discussing infringing activities but rumors that people were working on ways that “get around” the patent. DX-1522 at CMU 00194712.

1992). It has failed to meet that burden.

Even if Dr. Moura's notes could be interpreted as establishing that CMU believed potential design around efforts would necessarily be unsuccessful, neither the notes nor any other evidence identify *Marvell* as a company attempting to design around. The facts weigh *against* any such conclusion. Not only had Dr. Nazari previously told Dr. Kavcic that Marvell was *not* using his invention, but as of May 2001, Marvell (1) had just begun internal use of its KavcicViterbi simulator; (2) had not incorporated CMU's patented technology into any chip; and (3) was exploring alternatives to address media noise after initially concluding that the CMU invention was "disappointing." *See, e.g.*, P-227; P-93; DX-1060. In fact, Marvell did not develop its "media noise detector based on [the] Kavcic model" until December 2001. *See* P-278. Marvell does not explain how those facts (and Marvell's secrecy policy) give rise to a duty to inquire in May 2001.

2. *Marvell Ignores or Misrepresents the Evidence Showing CMU Did Not Have Constructive Knowledge in 2001*

To buttress its contrived claim that the May 2001 meeting notes show constructive knowledge, Marvell also misrepresents the inventors' April 2003 emails and their related testimony. *See* Dkt. 854 at 2. Marvell has known since its deposition of Dr. Kavcic nearly three years ago that the "prior confirmation" that Marvell claims is "embodied in" the May 2001 notes (1) was not remotely related to those notes but rather relates to a communication between Dr. Kavcic and Dr. Ara Patapoutian; and (2) did not relate to Marvell. Ex. 1 at 813-16.⁴ In mid-April 2001, Dr. Kavcic sent Dr. Moura a list of a dozen companies (including Marvell) after Dr. Moura suggested that they should "contact possible companies that *may have an interest* in [the '839 patent]." Ex. 2 (emphasis added). At Dr. Kavcic's deposition, Marvell's counsel asked whether that email list related to his "belief of potential infringers of the '839 patent as of April 13, 2001." Ex. 1 at 809-10. Dr. Kavcic answered, "I wouldn't say this is something that talks about infringers at all." *Id.* Dr. Kavcic further testified that he *did not* believe, in April 2001, "that any of the companies listed" in his emails "may be infringing" and did not have *any* suspicions that Marvell

⁴ "Ex. --" refers to the exhibits to the Declaration of Christopher M. Verdini filed herewith.

was infringing. *Id.* at 809-10; 817-18.

Finally, Marvell mischaracterizes Dr. Moura’s testimony about the inventors’ web research regarding Marvell. Dkt. 854 at 2 (arguing that “when asked what CMU did in 2003 to investigate, Dr. Moura responded: ‘[w]e went looking *back* for your materials....’”) (emphasis in original). In addition to failing to identify any such 2001 web document in the first instance, Marvell cites *no* evidence suggesting that by “looking back,” Dr. Moura meant “looking back to 2001” (or to any time meaningfully earlier than the April 5, 2003 email at P-212 that gave rise to that line of questioning). *See* 11/29/12 Tr. at 93-95.

III. MARVELL CANNOT SHOW THE FACTUAL PREDICATES FOR LACHES

A. Marvell Cannot Show that CMU Failed to Exercise Diligence

Ignoring the fact that CMU had no duty to contact Marvell, *see* Dkt. 823 at 11-12, and that it nonetheless did so in August 2003, Marvell again asserts (without citing any authority) that “*reasonable* diligence in this case required CMU to either raise or else investigate its infringement concerns with Marvell.” Dkt. 854 at 2 (emphasis in original).⁵ Marvell’s assertion cannot satisfy its burden to show unreasonable delay, particularly in light of CMU’s investigation into the rumors that Dr. Kavcic heard in April 2003, Marvell’s failure to respond and its policy of secrecy.⁶

Furthermore, Marvell’s post-hoc assertions that it “would have had no difficulty sharing” information had CMU asked (Dkt. 854 at 4) is belied by the record and cannot support a finding that CMU failed to exercise reasonable diligence for at least the following reasons:

- Marvell’s actions speak louder than its words. The record reflects that IBM and Agilent wrote letters “announcing patents and offering a license in those patents” just like CMU’s August 2003 letters. *See* Ex. 3 at 33-39. Marvell, however, responded to

⁵ Marvell does not dispute that the cases upon which it relies show only that direct communications with an infringer may be sufficient to satisfy a duty of inquiry, not that such inquiries are *required*.

⁶ Marvell also offers no authority for its perplexing new claim that CMU’s investigation was unreasonable because it did not seek Marvell’s permission before asking Seagate by email, in April 2003, about the rumors Dr. Kavcic heard. Dkt. 854 at 2. Furthermore, as Marvell concedes, Dr. Kryder could not confirm that anyone was using the CMU invention and Marvell cannot run from its argument at trial that Dr. Kryder’s email was evidence that CMU did not know that anyone, including Marvell, was using CMU’s invention. 12/20/12 Tr. at 82:14-83:10.

IBM and Agilent. *Id.* Marvell's decision to ignore CMU's licensing inquiry severely undercuts its claim that it "would have" responded to a more aggressive inquiry.⁷

- Marvell admitted at trial that it did not and would not tell CMU what was in Marvell's circuits. *See, e.g.*, 12/12/12 Tr. at 61-64.⁸

Marvell also fails to rebut the ample precedent that precludes a finding of laches when the infringer has kept its infringement secret. Marvell does not dispute that CMU could not have discovered Marvell's infringement without access to Marvell's engineers and/or internal documents. Instead, Marvell asserts that a "defendant's supposed 'secrecy' cannot thwart [the patentee's] inquiry." Dkt. 854 at 3. Marvell's assertion is not supported by the case law it cites.

- In *Crown Packaging* (unlike this case), the evidence showed that one could "determine whether [patentee's] method was used to manufacture a can by *simply looking at the can*" and "*cans manufactured by [defendant] are easy to obtain on the market.*" *Crown Packaging Tech., Inc. v. Rexam Beverage Can Co.*, 679 F. Supp. 2d 512, 522-23 (D. Del. 2010) (emphasis added). Moreover, the patentee in *Crown* "put forward no evidence" of any policy of secrecy on the part of the defendant. *Id.* at 525.⁹ Here, CMU has introduced abundant evidence of Marvell's secrecy.
- In *Smith & Associates*, the patentee sent a letter to the defendant asserting likely infringement more than six years prior to filing suit. *Ronald A. Smith & Assocs. v. Hutchinson Tech., Inc.*, No. C 01-03847, 2002 WL 34691677 at *1-2 (N.D. Cal. Aug. 16, 2002). On those facts, the court held that "the patent owner must be presumed to have an arguable basis for the assertion" and "[t]hat alone is enough to trigger the commencement of the six-year period." *Id.* at *4. Moreover, the court found that the defendant's trade secret policy was irrelevant, in part, because the patentee admitted that "no actual access, physical inspection, or testing of the equipment" was necessary

⁷ Marvell's Freescale example also falls flat. Dr. Sutardja does not give sufficient details about the type of information or the specific circumstances under which the information was given to Freescale. Furthermore, just like here, Marvell apparently did not change its activities in response to Freescale's assertion of its patent rights because Freescale sued Marvell asserting that Marvell continues to infringe its patents. *See Freescale Semiconductor, Inc. v. Marvell Semiconductor, Inc., et al.* (W.D. Tex., C.A. No. 1:12-cv-644-LY).

⁸ Marvell is not entitled to an inference that it responded to the letter from Fujitsu. Marvell's Rule 30(b)(6) witness testified that he was not aware of any response to the letter and Marvell's counsel represented that there was no written response. JX-C at 531-35. In addition, Marvell repeatedly confirmed that it was not relying on an opinion of counsel defense and, therefore, any deposition of Mr. Janofsky would have been futile. Indeed, ***Marvell instructed its former general counsel, Mr. Gloss, not to answer questions regarding whether Marvell conducted an investigation based on the Fujitsu letter and whether it was Marvell's practice to respond to such letters on grounds of attorney-client privilege and work product.*** *See* Ex. 3 at 53-57.

⁹ The same was true in *Comcast*, where infringement could be determined from public information and there were no allegations that the infringer had a policy of secrecy. *See Comcast Cable Comm'cns Corp. v. Finisar Corp.*, No. C-06-04206, 2008 WL 170672 at *4-6 (N.D. Cal. Jan. 17, 2008).

because it knew of the defendant's patent and knew that it covered the accused products. *Id.* at *9-10. No such facts exist here, at least not prior to the issuance of Marvell's '585 patent. Marvell ignored CMU's request to "investigate whether [Marvell] would find it attractive to license" the CMU technology and it is undisputed that because of Marvell's secrecy, CMU could not discover information about Marvell's technology without access to confidential information.

- The facts in *Ultimax* do **not** "parallel[]... those here." Dkt. 854 at 3 n. 5. The patentee in *Ultimax* was actually working for the defendant when he made the invention he was hired to discover; indeed, the court found that the defendant had shop rights in the patent. *Ultimax Cement Mfg. Corp. v. CTS Cement Mfg. Corp.*, 856 F. Supp. 2d 1136, 1150, 1153 (C.D. Cal. 2012).

Finally, Marvell's continued reliance on Drs. Kavcic and Moura's belief that the industry was using their technology and its attempt to make a virtue out of the fact that the jury agreed with CMU that the Accused Technology was "must have" and "optimal" for Marvell ignores: (1) the undisputed evidence that Drs. Kavcic and Moura's belief was based on the rumors that CMU investigated and were not substantiated at that time; (2) CMU's inability to test for Marvell's infringement; (3) the evidence that Marvell never would have told CMU what it was doing; and (4) that Dr. Bajorek's "must have" opinion was grounded in Marvell's *internal* documents, including its failed iterative technology. In addition, to avoid willfulness, Marvell asserts that CMU's delay "shows that CMU lacked any obvious or immediate basis to overcome Marvell's [supposed] reasonable defenses to infringement." Dkt. 851 at 4.¹⁰ These mutually-exclusive arguments only highlight Marvell's inability to carry its burden on either front.

B. Marvell Cannot Show Prejudice

Faced with its admitted failure to change its behavior one iota in the more than four years since CMU filed suit, Marvell now argues that CMU's focus on Marvell's indifference to CMU's patents "misses the point: had CMU sued **and won**, by 2008... Marvell certainly would not have included the NLD feature." Dkt. 854 at 6 (emphasis in original). Marvell does not cite any authority for the remarkable proposition that it can show prejudice because it would have changed

¹⁰ Marvell's citation to *Forest Labs*, which is not a laches case, is specious. Dkt. 854 at 6. The court rejected the patentee's claim that it could not have known of infringement because the patentee knew as much in 1984 as it did in 1994 when it asserted infringement, not because of the breadth of its claims. *Forest Labs, Inc. v. Abbot Labs.*, No. 96-CV-159, 1999 WL 33299123 at *16 (W.D.N.Y. June 23, 1999).

its behavior if forced to do so by an adverse judgment.¹¹ Furthermore, Marvell's post-verdict assertions that, if CMU sued earlier, it would not have adopted the NLD are meritless. Both Marvell's Rule 30(b)(6) designee, Mr. Burd, and Dr. Wu testified that Marvell's iterative decoder (SOVA) could work without using the NLD in infringing modes. *See* Ex. 4 at 562; Ex. 5 at 310. Nevertheless, since the filing of this lawsuit, Marvell has steadfastly declined to "phase out" the NLD, opting instead to introduce almost 60 new infringing NLD chips. Dkt. 850 at 7; Dkt. 639. Because Marvell cannot "submit[] evidence that [it] curtailed design and development" of the Accused Chips "in response to [the patentee's] suit once it was actually filed," and failed to show "that [it] would have acted differently had [CMU] sued earlier," Marvell has failed to establish economic prejudice. *Meyers v. Asics Corp.*, 974 F.2d 1304, 1308 (Fed. Cir. 1992).

On evidentiary prejudice, Marvell continues to speculate about evidence that, if it had ever existed, might have been relevant to defenses that Marvell never raised. Dkt. 854 at 7 n.11.¹² Marvell's citation to the *Odetics* case is misplaced because the defendant there identified "at least 600 to 800 documents related to [its] § 102(g) validity defense" that had "been lost or destroyed *as a consequence of the delay*" as well as three "key figures in the prosecution" who "no longer [had] *any* recollection" of prosecution or the intent of patent claims. *Odetics, Inc. v. Storage Tech. Corp.*, 919 F. Supp. 911, 922-23 (E.D. Va. 1996).¹³ Marvell has not established that any

¹¹ Marvell's attempt to distinguish *Humanscale*, *Fifth Third* and *State Contracting* fails. *See* Dkt. 854 at 6, n.10. Like the infringers in those cases, Marvell was "on actual notice of potential infringement during the laches period"—here, because Marvell (1) knew that its MNP was based on "Kavcic's model;" (2) discovered in January 2002 that Kavcic's detection scheme was patented; (3) received CMU's letters in August 2003; and (4) received Fujitsu's letter in November 2004.

¹² Marvell's reliance on Dr. Wolf also fails to meet its burden to show evidentiary prejudice. While Dr. Wolf may have believed that the CMU patents were invalid based on the supposed "further modified metric in Worstell," Marvell abandoned its tap-weight/target value theories, (Dkt. 306 at 15-16 n.9; Dkt. 337 at 5-7 n.4), and Dr. Proakis's entire testimony at trial was based on Worstell's "further modified metric."

¹³ Similarly, the *Thomas* case is inapposite because delay was presumed unreasonable and prejudicial and, in particular, because nine years before filing suit the patentee had obtained an infringement analysis from his patent prosecution counsel that concluded the accused products *did not infringe*, but over time "nearly all documents... pertinent" to that analysis, "including the assessment of non-infringement," had been lost and the two attorneys involved no longer had "any independent recollection of the infringement analysis." *See Thomas v. Echostar Satellite L.L.C.*, 2006 WL 3751319 at *3-4 (W.D.N.C. Dec. 19, 2006).

documents were (supposedly) lost or memories faded *because of* CMU's alleged delay.¹⁴ Indeed, Marvell ignores its own failure to take thorough discovery into its supposed "critical" defenses, *see* Dkt. 816 at 5-8, including its decision to depose only 5 of the 21 individuals listed in CMU's initial disclosures and specifically failing to depose (1) the individuals from whom Dr. Kavcic heard the rumors, (2) all the members of Dr. Kavcic's Ph.D. committee, (3) the heads of the DSSC after Dr. Kryder left in 1998, and (4) Dr. Nazari, just to name a few. *See* Dkt. 826, Ex. 13. Marvell should not be heard to cry prejudice when it failed to take obvious discovery on the defenses it claims would have been helped by allegedly absent evidence and faded memories.

Finally, Marvell's argument that *Altech* and *Odetics* support a finding of laches here despite the relatively short delay fails. In *Odetics*, the patentee "chose not to investigate" infringement due to "a strategic decision to use the possibility of infringement as 'leverage,'" *Odetics*, 919 F. Supp. at 923, which fits squarely within the Federal Circuit's rule that "extraneous improper tactics" are needed for a finding of laches when suit is filed within four years. Dkt. 823 at 15. As to *Altech*, Marvell conveniently ignores the Federal Circuit's *reversal* of the district court's finding of laches "because only two years passed between issuance of the... patent and the filing of the infringement claim." *Altech Controls Corp. v. Eil Instrum., Inc.*, 8 Fed. Appx. 941, 952 (Fed. Cir. 2001).

C. Marvell's Egregious Conduct, Including Its Willful Infringement, Precludes A Finding Of Laches

Marvell has engaged in the type of "particularly egregious conduct" that is described in the *Odetics* case that Marvell cites. *See Odetics, Inc. v. Storage Tech. Corp.*, 14 F. Supp. 2d 800, 806 (E.D. Va. 1996); Dkt. 792, 793. Thus, Marvell should be precluded from asserting laches.

IV. CONCLUSION

For the foregoing reasons, CMU respectfully requests that the Court deny Marvell's Motion for Judgment on Laches (Dkt. 802).

¹⁴ For example, John Lerchey, an employee in CMU's information security office, testified that Dr. Kavcic's email account would have been deleted between three to six months after his departure. *See* Ex. 6 at 142-43. Dr. Kavcic graduated from CMU in 1998, approximately three years before the '839 patent even issued.

Respectfully submitted,

Dated: April 19, 2013

/s/ Christopher M. Verdini

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CERTIFICATE OF SERVICE

I hereby certify that on April 19, 2013 the foregoing was filed electronically. Notice of this filing will be sent to all parties by operation of the Court's electronic filing system. Parties may access this filing through the Court's system.

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