

**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.	)	

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**PLAINTIFF’S MOTION FOR PARTIAL SUMMARY JUDGMENT DISMISSING  
DEFENDANTS’ AFFIRMATIVE DEFENSE AND COUNTERCLAIMS OF  
UNENFORCEABILITY DUE TO INEQUITABLE CONDUCT**

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Pursuant to Rule 56 of the Federal Rules of Civil Procedure and Local Rule 56.1, Plaintiff Carnegie Mellon University (“CMU”), by and through its undersigned counsel, hereby moves this Court for an order granting partial summary judgment in CMU’s favor on Defendants Marvell Technology Group, Ltd.’s and Marvell Semiconductor, Inc.’s (collectively, “Marvell”) Sixth Affirmative Defense and Fifth and Sixth Counterclaims (collectively, the “inequitable conduct claims”), through which Marvell seeks to render unenforceable U.S. Patent Nos. 6,201,839 and 6,438,180 (collectively, the “CMU patents”).

In support of this Motion, CMU states as follows:

1. On April 29, 2010, Marvell amended (by consent) its answer and counterclaims to include its inequitable conduct claims. *See* Dkt. 116. Marvell originally premised those claims upon the alleged failure of the inventors of the CMU patents to disclose ten (10) allegedly material references to the United States Patent and Trademark Office (“PTO”). Marvell, however, has abandoned its claims regarding seven (7) of the references, and now bases its inequitable conduct claims upon the report of Dr. Proakis, who offered materiality opinions on only three references, the so-called: (1) “Quantum Work;” (2) “IBM Work;” and (3) “Barbosa SPIE” paper.

2. For its inequitable conduct claims, Marvell bears the burden of proving by clear and convincing evidence that the CMU inventors, Drs. Kavcic and Moura: (1) withheld prior art references from the PTO that are material under a “but-for” standard, meaning that the PTO would not have allowed a claim had it been aware of the undisclosed prior art; and (2) specifically intended to deceive the PTO by doing so. *See Therasense, Inc. v. Becton Dickinson and Co.*, 649 F.3d 1276, 1287-91 (Fed. Cir. 2011) (en banc). Marvell cannot come forward with any facts or evidence to meet its burden under either prong and, thus, its inequitable conduct claims fail as a matter of law.

3. As set forth more fully in the Memorandum of Law in Support of CMU's Motion, the three undisclosed references are either identical to or demonstrably cumulative of references that the PTO considered during the examination of the CMU patents.

- a) The "Quantum Work" is a patent, the Quantum/Knudson patent, that has an identical disclosure to another patent, the Fitzpatrick patent, that the PTO considered during the examination of both CMU patents.
- b) The "IBM Work" is a paper, the Eleftheriou '96 paper, that describes a Viterbi detector with branch metrics that are: (i) "mathematically equivalent," according to Marvell's expert, to branch metrics of an IBM patent having Eleftheriou as a co-inventor and that the PTO considered during the examination of the '180 CMU patent; and (ii) cumulative of the branch metrics in other papers and patents that Eleftheriou co-authored and that the PTO considered during the examination of both CMU patents.
- c) The branch metric in the "Barbosa SPIE paper" uses only a single signal sample and, hence, ignores the correlation between signal samples, as even Marvell's expert admitted. Therefore, the Barbosa SPIE paper is at best cumulative of other papers that the PTO considered during the examination of both CMU patents that similarly disclose branch metrics that use only a single signal sample and ignore the correlation between signal samples.

4. For the intent prong, Marvell must prove that the inventors made a deliberate decision to withhold known, material prior art. *See Therasense*, 649 F.3d at 1290. Negligence, gross negligence, or a showing that the inventors "should have known" of the materiality is insufficient to satisfy the intent prong. *Id.* Nor may intent be inferred solely from a high degree of materiality. *Id.* Additionally, it is only appropriate to infer intent from circumstantial evidence where a specific intent to deceive is "the single most reasonable inference able to be drawn." *Id.* at 1290-91. "Indeed, the evidence 'must be sufficient to **require** a finding of deceitful intent in the light of all of the circumstances.'" Hence, when there are multiple reasonable inferences that may be drawn, intent to deceive cannot be found." *Id.* at 1290-91 (emphasis in original).

5. Marvell cannot come forward with any evidence, let alone clear and convincing evidence, that satisfies this high standard. Among other things, Marvell cannot show that the

reasons of the CMU inventors for not disclosing the references at issue were implausible, so it cannot show that an intention to deceive the PTO is “the single most reasonable inference able to be drawn” and that the evidence “*require[s]* a finding of deceitful intent in the light of all of the circumstances.” *Therasense*, 649 F.3d at 1290 (emphasis in original).

6. In fact, both inventors testified that they did not intend to deceive the PTO. The inventors testified that they did not disclose the three references relied on by Marvell because they were cumulative of other cited references, failed to identify solutions for the problems solved by their own invention, or otherwise were irrelevant

7. In support of its Motion for Partial Summary Judgment, CMU is filing concurrently herewith, and hereby incorporates by reference, (1) Memorandum of Law in Support of Motion for Partial Summary Judgment; (2) Declaration of Christopher M. Verdini in Support of Motion for Partial Summary Judgment; (3) Concise Statement of Material Facts; and (4) Appendix to CMU’s Concise Statement of Material Facts.

WHEREFORE, CMU respectfully requests this Court to enter an order granting summary judgment in CMU’s favor dismissing Marvell’s Sixth Affirmative Defense and Fifth and Sixth Counterclaims that seek to render unenforceable because of inequitable conduct the CMU patents.

A proposed Order is attached.

Dated: April 20, 2012

Respectfully submitted,

/s/ Christopher M. Verdini

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**CERTIFICATE OF SERVICE**

I hereby certify that on April 20, 2012, 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. Counsel includes:

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