IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ELM 3DS INNOVATIONS, LLC, Plaintiff, v. SK HYNIX INC., SK HYNIX AMERICA, INC., HYNIX SEMICONDUCTOR MANUFACTURING AMERICA, INC., and SK HYNIX MEMORY SOLUTIONS INC., Defendants.	)	Civil Action No. 14-1432-LPS-CJB

REPORT AND RECOMMENDATION

At Wilmington this **16th day of October 2015**, having reviewed Defendants SK hynix Inc., SK hynix America Inc. ("SKHYA"), Hynix Semiconductor Manufacturing America Inc. ("HSMA"), and SK hynix Memory Solutions Inc.'s ("SKHMS") (collectively, "Defendants" or "SK hynix") "Partial Motion to Dismiss Plaintiff's Pre-suit Induced Infringement Claims Pursuant to Fed. R. Civ. P. 12(b)(6)" ("Motion"), (D.I. 24), and the papers filed in connection therewith, the Court recommends that the Motion be DENIED based on the following reasoning.

I. BACKGROUND

1. Plaintiff Elm 3DS Innovations, LLC ("Plaintiff" or "Elm") brought suit in November 2014. (D.I. 1) A subsequent First Amended Complaint ("FAC"), (D.I. 13), is now the operative complaint, and it alleges that Defendants' semiconductor chip products infringe 13 United States patents, one of which—U.S. Patent No. 7,193,239 ("the '239 patent")—is relevant to this Motion.[1] Chief Judge Leonard P. Stark has referred the instant case to the Court for

[1] The '239 patent, entitled "Three Dimensional Structure Integrated Circuit," issued on March 20, 2007. (D.I. 13, ex. 1)

limited purposes, including for resolution of the instant Motion. (D.I. 6)

2. With the Motion, Defendants seek to dismiss Plaintiff's claims for induced infringement, to the extent Plaintiff seeks damages for pre-suit infringement. (D.I. 24 at 1) Plaintiff has confirmed that it alleges pre-suit induced infringement as to only one of the patents-in-suit, the '239 patent, (D.I. 30 at 1 n.1 & 3), and so that claim is the only claim put at issue by the Motion.

3. The Court recently issued a Report and Recommendation in a related case, *Elm 3DS Innovations, LLC v. Samsung Elecs. Co., Ltd.*, Civil Action No. 14-1430-LPS-CJB, 2015 WL 5725768 (D. Del. Sept. 29, 2015) ("the *Samsung* case" or "*Samsung*"), in which it recommended denial of a similar motion to dismiss. The Court will hereafter assume familiarity with the decision in the *Samsung* case.

II. DISCUSSION

4. The sufficiency of pleadings for non-fraud cases is governed by Federal Rule of Civil Procedure 8, which requires "a short and plain statement of the claim showing that the pleader is entitled to relief." Fed. R. Civ. P. 8(a)(2). When presented with a Rule 12(b)(6) motion to dismiss for failure to state a claim for induced infringement, a court conducts a two-part analysis. *Fowler v. UPMC Shadyside*, 578 F.3d 203, 210 (3d Cir. 2009). First, the court separates the factual and legal elements of a claim, accepting "all of the complaint's well-pleaded facts as true, but [disregarding] any legal conclusions." *Id.* at 210-11. Second, the court determines "whether the facts alleged in the complaint are sufficient to show that the plaintiff has a 'plausible claim for relief.'" *Id.* at 211 (quoting *Ashcroft v. Iqbal*, 556 U.S. 662, 679 (2009)). "A claim has facial plausibility when the plaintiff pleads factual content that allows

the court to draw the reasonable inference that the defendant is liable for the misconduct alleged." *Iqbal*, 556 U.S. at 678 (citing *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 556 (2007)). In assessing the plausibility of a claim, the court must "'accept all factual allegations as true, construe the complaint in the light most favorable to the plaintiff, and determine whether, under any reasonable reading of the complaint, the plaintiff may be entitled to relief.'" *Fowler*, 578 F.3d at 210 (quoting *Phillips v. Cnty. of Allegheny*, 515 F.3d 224, 233 (3d Cir. 2008)).

5. As to the substance of an induced infringement claim, 35 U.S.C. § 271(b) states that "[w]hoever actively induces infringement of a patent shall be liable as an infringer." In order to prove induced infringement, the patentee "must show direct infringement, and that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement." *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1363 (Fed. Cir. 2012) (internal quotation marks and citations omitted); *see also Symantec Corp. v. Comput. Assocs. Int'l, Inc.*, 522 F.3d 1279, 1292-93 (Fed. Cir. 2008) ("Thus, 'inducement requires evidence of culpable conduct, directed to encouraging another's infringement, not merely that the inducer had knowledge of the direct infringer's activities.'") (citation omitted). A complaint stating a claim for induced infringement must allege facts that, taken as true, plausibly demonstrate the requisite knowledge and intent—that is, that Defendants knew of the patent, knew that a third party's (here their customers') acts constituted infringement of the patent, and specifically intended that their customers infringe. *See In re Bill of Lading Transmission and Processing Sys. Patent Litig.*, 681 F.3d 1323, 1339 (Fed. Cir. 2012); *Xpoint Techs., Inc. v. Microsoft Corp.*, 730 F. Supp. 2d 349, 356 (D. Del. 2010).

6. Defendants first argue that Plaintiff has not alleged sufficient facts to

demonstrate that SK hynix had pre-suit knowledge of the '239 patent as of the date the patent issued (March 20, 2007). (D.I. 25 at 5-10; D.I. 35 at 3-8) To that end, although the FAC generally alleges Defendants' pre-suit knowledge of the patent, (D.I. 13 at ¶ 50), it does not cite to any direct evidence indicating that Defendants ever reviewed or cited to the '239 patent prior to suit. (*See* D.I. 13 at ¶¶ 50-76; D.I. 30 at 7 (noting that Plaintiff intends to demonstrate such knowledge "indirectly from surrounding circumstances"))

7. The FAC does, however, list certain facts relating to Defendants' knowledge of the parent patent of the '239 patent. More specifically, the FAC alleges that in 2000 or 2001, Elm's President Glenn Leedy (the inventor of the patents-in-suit) met with Defendants and made a presentation on Elm's 3DS technology during that meeting. (D.I. 13 at ¶ 51; *see also* D.I. 30 at 3) It is asserted that Mr. Leedy traveled to Korea for the meeting at the invitation of Farhad Tabrizi, then-Vice President of World Wide Marketing at Hyundai Semiconductor (an entity that is now SK hynix, and that will be referred to hereafter as SK hynix). (D.I. 13 at ¶ 32) While there, Mr. Leedy not only met personally with Mr. Tabrizi, but also with "approximately 60 Hynix engineers[.]" (*Id.*) Mr. Leedy provided this sea of SK hynix engineers with "a presentation and a copy of" U.S. Patent No. 5,915,167 ("the '167 patent"), the parent patent to the '239 patent; the presentation included slides depicting figures from the '167 patent. (*Id.* at ¶¶ 32, 51) In the meeting, Mr. Leedy "explained that the [semiconductor] technology [at issue] was available to a limited number of licensees[,]" but it is alleged that terms of a license were not discussed at this meeting, and that a license agreement did not thereafter come to fruition. (*Id.* at ¶ 32)

8. The FAC also contains allegations that the '239 patent was well known in the

semiconductor industry and that it was frequently cited by other of Defendants' competitors in that industry. These include the following allegations: (a) the '239 patent has been cited by at least 40 issued U.S. patents since 2008, including by a number of Defendants' competitors in the semiconductor field such as Micron Technology, Inc. (hereinafter "Micron," a Defendant in a related case filed by Plaintiff in this Court), Xilinx, Inc. ("Xilinx") and IBM Corporation ("IBM"); (b) Defendants, along with Micron, Xilinx, IBM and Samsung (which, as noted above, is also a Defendant in a related case filed by Plaintiff in this Court), are participants in the HMC Consortium, a forum for semiconductor manufacturers that "have come together for the explicit purpose of developing and adopting an industry-wide interface for DRAM memory architectures that revolves around vertical stacks of DRAM die" and that "discuss intellectual property relating to the HMC design as part of their work in the consortium"; (c) Micron has cited to the Elm 3DS patent portfolio in 40 of its patents since 2000; (d) Micron cited to the '239 patent on Information Disclosure Statements ("IDS") submitted during prosecution of patent applications that eventually issued as U.S. patents, including on a 2013 IDS devoted entirely to disclosing patents and patent applications belonging to Mr. Leedy; and (e) the Elm 3DS portfolio, and in particular the '239 patent, "were frequently referenced" in the "tight knit" semiconductor industry, and were "widely and publicly known" in that industry.[2] (*Id.* at ¶¶ 53-57)

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[2] Defendants cite to certain portions of the HMC Consortium's website to note the fact that the organization was not established until 2011 (four years after the '239 patent was issued) and that SK hynix did not join the consortium until 2012 (five years after the patent was issued). (D.I. 35 at 7 (citing D.I. 36, exs. A-B)) This is said to render it "implausible to believe that SK hynix could have possibly [] learned about the [2007-issued] '239 patent from an entity that was not created until 2011 and SK hynix did not join until 2012." (*Id.*) It is at least arguable that the Court could consider these website-related materials in resolving the Motion, since the HMC Consortium website was itself cited in the FAC (and a different portion of the website was attached as an exhibit to the FAC). (D.I. 13 at ¶ 54 & ex. 22); *see also In re Burlington Coat*

9. The allegations regarding Defendants' knowledge of the '239 patent, taken as true, suggest that as of the early 2000s, Defendants had some fairly detailed exposure to and discussions about the '239 patent's parent.[3] Of course, after reading these allegations, one possible inference could be that, as Defendants assert, "SK hynix [thereafter] determined that the technology disclosed in the [parent] '167 patent was inapplicable" and never concerned itself with that patent or any children of that patent until the instant suit was filed. (D.I. 25 at 6 n.2) Certainly no one is suggesting that SK hynix had an affirmative duty to keep abreast of the '167 patent or its children during the intervening few years until the application leading to the '239

Factory Sec. Litig., 114 F.3d 1410, 1426 (3d Cir. 1997) (noting that when assessing a Rule 12(b)(6) motion, a court may consider exhibits to a complaint and documents integral to or explicitly relied upon in a complaint). But even assuming it could, the Court reads the allegations as to the HMC Consortium as primarily meant to support Plaintiff's assertion that the semiconductor industry is a tight-knit one, in which employees of large competitors like SK hynix, Samsung and Micron have frequent contact with each other, through their joint participation in industry groups. The Court agrees that were the allegations regarding SK hynix's participation in the HMC Consortium the only industry-related allegations in the FAC, they could not support an inference of SK hynix's knowledge of the '239 patent at the time of its issuance. But they are not.

[3] Defendants assert that because "knowledge [is in part alleged to be] based on acts that occurred prior to the issuance of the asserted patent[,]" this necessarily suggests that Plaintiff's allegations are insufficient, citing in support the decision in *Zond, Inc. v. SK hynix Inc.*, Civil Action Nos. 13-11591-RGS, 13-11570-RGS, 2014 WL 346008, at *2 (D. Mass. Jan. 31, 2014). (D.I. 25 at 6) But the plaintiff's allegations as to the defendants' pre-issuance exposure to the patented technology in *Zond* were much more vague and uncertain than the allegations here as to Defendants' knowledge of the '167 patent. In *Zond*, the allegations regarding knowledge of the later-patented technology was that representatives of the defendants attended a trade show where Zond gave a presentation on the technology at issue. *Zond, Inc.*, 2014 WL 346008, at *2. In *Zond*, however, there was no alleged "direct contact between the defendant[s] and the plaintiff's patented technology." *Id.* Indeed, in *Zond*, there was no allegation that any of the defendants' employees even attended the trade show presentation at issue, or that they had spoken with anyone from Zond; in fact, the trade show at issue was attended by one thousand different presenters. *Id.* Here, in contrast, the allegation is that the Plaintiff's inventor directly provided a presentation to many representatives of Defendants as to the '167 patent.

patent became public, or until the '239 patent was issued in March 2007. (D.I. 25 at 7-8); *see also Virginia Innovation Scis., Inc. v. Samsung Elecs. Co., Ltd.*, 983 F. Supp. 2d 700, 710 (E.D. Va. 2013) (noting that there is no affirmative duty for a potential infringer to monitor a parent patent it is aware of for potential future continuations or continuations-in-part). But these allegations at least help to make it seem *more plausible* that after gaining knowledge of its parent, Defendants might later have been aware of the '239 patent when it issued. Indeed, it is not unreasonable to infer that if a meeting with Mr. Leedy regarding the '167 patent was significant enough to warrant (1) an invitation to Korea and (2) an audience with a company Vice President and approximately 60 of Defendants' employees, then the patent and related technology could have been significant enough to have remained on Defendants' radar screen for quite some time.

10. Plaintiff is also helped here by its allegations that the '239 patent is well known and frequently referenced in the semiconductor industry, and that the patent has been frequently cited by Defendants' competitors (both in issued patents and patent applications) over the last many years. These pleaded facts are relevant not because the Court is imputing the knowledge of Defendants' competitors to Defendants. (*See* D.I. 25 at 9) Instead, they are relevant because if true (as the Court must assume them to be), the pleaded facts render it more likely that Defendants (who are also participants in the allegedly "tight knit" semiconductor industry) may have been similarly aware of the '239 patent's existence and its contents. *See Investpic, LLC v. Factset Research Sys., Inc.*, Civ. No. 10-1028-SLR, 2011 WL 4591078, at *2 (D. Del. Sept. 30, 2011) (finding that plaintiff had sufficiently alleged that defendant had knowledge of the patent-in-suit, in part because plaintiff had alleged that the patent was "well-known in the

industry—having been cited by at least 79 issued U.S. patents since 2001[,]" and "if a patent is 'publicly' known, one can infer . . . that an individual defendant had knowledge of it").[4]

11. With all of this said, the allegations of pre-suit knowledge of the '239 patent are in some ways less strong here then they were in the *Samsung* case. In *Samsung*, similar allegations of knowledge to those referenced above were part of the applicable complaint. But additionally, Plaintiff alleged that the Samsung Defendants, after having similarly received a presentation on the '167 patent from Mr. Leedy in 2000 or 2001, thereafter cited repeatedly to other Elm 3DS patents (the '167 patent, and three children of the '167 patent that share the same specification as the '239 patent) when prosecuting Samsung's own patent applications. *See Samsung*, 2015 WL 5725768, at *2. That only helped to strengthen the inference that the Samsung Defendants had kept abreast of the Elm 3DS patent family in the years since the Leedy presentation (and that, as a result, Samsung was more likely to have known of the '239 patent at the time of its issuance).

12. In the end, this question amounts to a very close call. In and of themselves, the allegations regarding (1) Defendants' knowledge of the parent patent of the '239 patent or (2) the

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[4] *Cf. MONEC Holding AG v. Motorola Mobility, Inc.*, 897 F. Supp. 2d 225, 233-34 (D. Del. 2012) (distinguishing *Investpic* on this point on the grounds that while there, the patent-in-suit had been cited by at least 79 issued patents in the past 10 years, in the instant case, there were "no similar allegations supporting an inference that the [patent-in-suit] is widely known and frequently referenced in the industry" and that, in the instant case, "the alleged public disclosure stems from two lawsuits against Defendants' competitors, which concluded well before the issuance of the [patent-in-suit]"); *Trading Techs. Int'l, Inc. v. BCG Partners, Inc.*, No. 10 C 715, 2011 WL 3946581, at *4 & n.5 (N.D. Ill. Sept. 2, 2011) (*cited in MONEC,* 897 F. Supp. 2d at 232) (concluding "that the litigants are competitors in the same industry is a fact that makes [a defendant's knowledge of the competitor's] patent at issue *more* plausible," even if such allegations would not be sufficient, in and of themselves, to pass Rule 12(b)(6) muster) (emphasis in original).

'239 patent's ubiquity in Defendants' industry, may not have been sufficient.[5] And even taken together, the Court might not conclude that they make pre-suit knowledge *probable*. But considered as a whole, the Court determines that they render it at least *plausible* that SK hynix was aware of the '239 patent and its claims as of the date of the patent's issuance.[6] *See Investpic, LLC*, 2011 WL 4591078, at *2 (concluding that another fact demonstrating knowledge—specifically, that products relating to the invention were readily available in the U.S. marketplace—when combined with fact that the patent-in-suit was well known in the industry, was together enough to make out a plausible claim of knowledge of the patent); *see also Softview LLC v. Apple Inc.*, Civ. No. 10-389-LPS, 2012 WL 3061027, at *5-6 (D. Del. July 26, 2012) (denying a motion to dismiss after concluding that plaintiff had alleged a "plausible basis" for pre-suit knowledge, based on the combined allegations that: (1) defendant's subsidiary "had cited the published application of the parent application of the [patent-at-issue] during the prosecution of one of [the subsidiary's] own patents"; (2) defendant had a "connection with [the] inventor"; and (3) defendant learned about the patent "from Apple in the course of its relationship with Apple as the exclusive seller of the iPhone . . . based on Apple's previous

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[5] *Cf. MONEC*, 897 F. Supp. 2d at 233 (finding that the fact that the alleged infringer had knowledge of a related patent to the patent-in-suit was not, *without more*, sufficient to demonstrate a plausible claim to pre-suit knowledge of the patent-in-suit); *Softview LLC v. Apple Inc.*, Civ. No. 10-389-LPS, 2012 WL 3061027, at *6 (D. Del. July 26, 2012) (finding that media reports confirming that a company with similar business interests to defendant was sued for infringement of the patent-in-suit was not sufficient, "by itself[,]" to suggest that the defendant would have been aware of those reports).

[6] That is, at least as to those Defendant entities that were in existence as of that date. Defendants assert in their briefing that SKHMS did not come into existence until August 2010. (D.I. 25 at 14) The FAC does not set out the dates in which the respective Defendant entities were formed (though it appears not in dispute that the other three entities were in existence as of the date the patent issued).

discussions with [plaintiff] involving [the patent]").

13. Next, Defendants assert that Plaintiff has failed to adequately plead that they had knowledge of their customers' infringement. (D.I. 25 at 10-14; D.I. 35 at 8-9) Yet in the FAC, Plaintiff alleges that Defendants' semiconductor chip products infringe at least claim 1 of the '239 patent, which is an apparatus claim. (D.I. 13 at ¶ 60) And Plaintiff sets out *how or why* these products infringe at least that claim of the patent: the claim, which is set out in full in the FAC, is asserted to cover "thinned, stacked semiconductor die that are bonded together in a single package" and Defendants' semiconductor chips are alleged to contain the claimed structure (i.e., to comprise "thinned, stacked semiconductor die that were bonded together in a single package"). (*Id.* at ¶¶ 61, 63; *see also id.* at ¶¶ 33-43, 64-65) This articulation of how and why Defendants' chips infringe is not extremely specific, but Defendants do not articulate why it is insufficient to set out a plausible claim of direct infringement (of at least claim 1).

14. From there, if it is plausible that Defendants knew of the '239 patent, then it is plausible that, as Plaintiff alleges, Defendants' engineers had reviewed the content of the patent's specification and claims. (*Id.* at ¶ 59) Next, Plaintiff pleaded that Defendants are "global manufacturer[s] of semiconductor devices" with "deep expertise" in manufacturing relevant memory products, such that they "possessed the technical expertise required" to understand the content and scope of the '239 patent—including that the patent covered semiconductor chips of the kind that Defendants made. (*Id.* at ¶¶ 61-63) Plaintiff then plausibly alleges that Defendants knew that their semiconductor chips at issue were in fact incorporated into their customers' (e.g., global equipment manufacturers like Apple, Microsoft, Samsung and HTC) finished electronics

products sold in the United States. (*Id.* at ¶¶ 68-70)[7] And because the allegation here is that Defendants' customers directly infringed the '239 patent "when they imported or sold finished electronics products containing infringing Hynix semiconductor chips in the United States[,]" the FAC plausibly asserts that Defendants were aware of their customers' infringement via that importation and sale. (*Id.* at ¶¶ 58, 66; *see also* D.I. 30 at 12-13); *cf. Largan Precision Co., Ltd. v. Genius Elec. Optical Co., Ltd.*, Case No. 13-cv-02502-WHO, 2013 WL 5934698, at *4 & n.3 (N.D. Cal. Nov. 4, 2013).

15. Lastly, Defendants assert that Plaintiff has not pleaded "entity-specific" factual allegations with respect to SKHYA, HSMA and SKHMS—that is, Plaintiff "does not make specific factual allegations with respect to each [of these three individual] Defendant[s'] knowledge and specific intent." (D.I. 25 at 14-15; *see also* D.I. 35 at 9-10). The Court is mindful, however, that it must have a "realistic view of what [any] plaintiff can generally plead at this stage of the proceedings with respect to another party's knowledge[.]" *Apeldyn Corp. v. Sony Corp.*, 852 F. Supp. 2d 568, 572-73 (D. Del. 2012). And here, Plaintiff's allegations are that these three additional Defendants (as is SK hynix, Inc.) are all involved in the manufacture

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[7] The allegations are also that Defendants' semiconductor chip products cannot be sold or used in a manner that does not infringe, in that they (1) are integral components of their customers' computer and mobile products that incorporate them; (2) are built into those customers' products; and (3) cannot be removed or disabled by an end user of those end products. (D.I. 13 at ¶ 70); *see Fairchild Semiconductor Corp. v. Power Integrations, Inc.*, 935 F. Supp. 2d 772, 778 (D. Del. 2013) (approving the sufficiency of allegations of infringement of apparatus claims, wherein the allegations were that "[Defendant] is aware that the infringing soft start circuit is a default feature of the controller products incorporating this circuit, that the softstart circuit is always present and cannot be disabled by a purchaser of the controller and, therefore, that [Defendant's] customers will infringe [the patent-in-suit] by using the default softstart feature or by incorporating the infringing controller in other products, and that subsequent sales of such products would also be a direct infringement.") (emphasis and citation omitted).

and distribution of semiconductor chips and related products. (D.I. 13 at ¶¶ 5-8) In, light of that, and because so many engineers with some relationship to SK hynix were alleged to have been exposed to Mr. Leedy's inventions at that early 2000s meeting, (*id.* at ¶ 32), it seems at least plausible that knowledge of the patent at issue, knowledge of infringement and infringing intent could reside within all four related Defendant companies.

III. CONCLUSION

16. For the reasons set forth above, the Court recommends that the Motion be DENIED.

17. This Report and Recommendation is filed pursuant to 28 U.S.C. § 636(b)(1)(B), Fed. R. Civ. P. 72(b)(1), and D. Del. LR 72.1. The parties may serve and file specific written objections within fourteen (14) days after being served with a copy of this Report and Recommendation. Fed. R. Civ. P. 72(b). The failure of a party to object to legal conclusions may result in the loss of the right to de novo review in the district court. *See Sincavage v. Barnhart*, 171 F. App'x 924, 925 n.1 (3d Cir. 2006); *Henderson v. Carlson*, 812 F.2d 874, 878-79 (3d Cir. 1987).

18. The parties are directed to the Court's Standing Order for Objections Filed Under Fed. R. Civ. P. 72, dated October 9, 2013, a copy of which is available on the District Court's website, located at http://www.ded.uscourts.gov.

Christopher J. Burke
UNITED STATES MAGISTRATE JUDGE