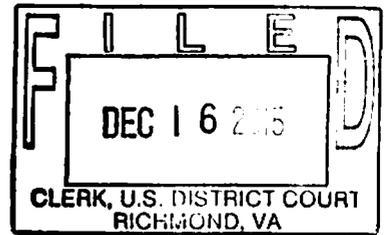


IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Richmond Division



SAMSUNG ELECTRONICS CO., LTD,
et al.,

Plaintiffs,

v.

Civil Action No. 3:14cv757

NVIDIA CORPORATION,
et al.,

Defendants.

MEMORANDUM OPINION

This matter is before the Court on Defendant NVIDIA's MOTION FOR PARTIAL SUMMARY JUDGMENT (Docket No. 294). For the reasons set forth below, the motion will be granted in part and denied in part.

I. BACKGROUND

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. ("Samsung") filed this case against NVIDIA Corporation, Old Micro, Inc. f/k/a Velocity Micro, Inc. and Velocity Holdings, LLC ("NVIDIA") alleging violation of several claims of several patents. (Compl., Docket No. 1). Discovery is now complete and the parties have filed cross-motions for partial summary judgment, although Samsung subsequently withdrew its motion for partial summary judgment.

The papers relevant to this motion are DEFENDANTS' MOTION FOR PARTIAL SUMMARY JUDGMENT (Docket No. 294), DEFENDANTS' MEMORANDUM OF LAW IN SUPPORT OF THEIR MOTION FOR PARTIAL SUMMARY JUDGMENT (Docket Nos. 295 and 307) (Def.'s PSJ Mem.), SAMSUNG'S OPPOSITION TO DEFENDANTS' MOTION FOR PARTIAL SUMMARY JUDGMENT (Docket Nos. 367 and 429) (Pl.'s PSJ Opp.), and DEFENDANTS' REPLY IN SUPPORT OF ITS MOTION FOR PARTIAL SUMMARY JUDGMENT (Docket Nos. 440 and 443) (Def.'s PSJ Reply).¹

II. ISSUES

NVIDIA alleges that it is entitled to partial summary judgment on three grounds:

- (1) In inter partes proceedings against the Patent Trial and Appeal Board ("PTAB"), Samsung made several statements that, in NVIDIA's view, contradict the positions that Samsung has taken in this case, such that Samsung is judicially estopped from asserting a contrary position here. NVIDIA further contends that, if Samsung cannot assert that contrary position in this case due to judicial estoppel, then the '602 patent is invalid for lack of written description. (Def.'s PSJ Mem. 3-11);

¹ These docket numbers reflect the unsealed and sealed versions of the papers.

- (2) Samsung is not entitled to pre-suit damages for the '902 or '675 patents because NVIDIA lacked actual notice that NVIDIA was importing infringing products, and is thus protected from pre-suit damages under the safe harbor provision of 35 U.S.C. § 287(b)(1). (Def.'s PSJ Mem. 11-21); and
- (3) The '902 patent is predated by certain prior art, and Samsung cannot establish conception and diligent reduction to practice of the '902 patent to antedate that prior art. (Def.'s PSJ Mem. 21-29).

Samsung's responses state, in brief, that:

- (1) (A) Samsung's statements before the PTAB are not inconsistent and do not evince intent to deceive a tribunal, such that judicial estoppel is inapplicable. (B) Moreover, even if Samsung is estopped from arguing that '602 covers the use of memory data buffers, the patent need not disclose every embodiment, and is thus not invalid for lack of written description. (Pl.'s PSJ Opp. 1-10);
- (2) There is a genuine dispute of material fact about NVIDIA's control over its overseas manufacturer which precludes summary judgment on the availability of pre-suit damages. (Pl.'s PSJ Opp. 11-22); and

(3) There is a genuine dispute of material fact about Samsung's diligence in reduction to practice which precludes summary judgment on antedating the asserted prior art. (Pl.'s PSJ Opp. 22-30).

III. LEGAL STANDARD FOR SUMMARY JUDGMENT

The standard principles for resolving motions for summary judgment govern the analysis made here.

Pursuant to Federal Rule of Civil Procedure 56, a party may move for summary judgment, and the Court must ascertain whether the case contains sufficient evidence from which a jury could reasonably find for the nonmoving party. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248, 106 S. Ct. 2505, 91 L. Ed. 2d 202 (1986). In essence, the Court must determine whether a genuine dispute of material fact exists to prevent factually unsupported claims and defenses from proceeding to trial. See Hostettler v. Auto-Owners Ins. Co., 744 F. Supp. 2d 543, 545 (E.D. Va. 2010). If "the record taken as a whole could not lead a rational trier of fact to find for the non-moving party, disposition by summary judgment is appropriate." U.S. v. Lee, 943 F.2d 366, 368 (4th Cir. 1991).

In reviewing a summary judgment motion, a court "must draw all justifiable inferences in favor of the nonmoving party."

United States v. Carolina Transformer Co., 978 F.2d 832, 835 (4th Cir. 1992) (citing Anderson, 477 U.S. at 255). However, a mere scintilla of evidence will not preclude summary judgment. Anderson, 477 U.S. at 251 (citing Improvement Co. v. Munson, 81 U.S. (14 Wall.) 442, 448, 20 L.Ed. 867 (1872)). " '[T]here is a preliminary question for the judge, not whether there is literally no evidence, but whether there is any upon which a jury could properly proceed to find a verdict for the party ... upon whom the onus of proof is imposed.'" Id. (quoting Munson, 81 U.S. at 448).

IV. JUDICIAL ESTOPPEL AND LACK OF WRITTEN DESCRIPTION ('602)

A. Judicial Estoppel

The law of the regional circuit governs the analysis of judicial estoppel. Minnesota Min. & Mfg. Co. v. Chemque, Inc., 303 F.3d 1294, 1302-03 (Fed. Cir. 2002). As explained by the Fourth Circuit:

[j]udicial estoppel is a principle developed to prevent a party from taking a position in a judicial proceeding that is inconsistent with a stance previously taken in court Three elements must be satisfied before judicial estoppel will be applied. First, the party sought to be estopped must be seeking to adopt a position that is inconsistent with a stance taken in prior litigation The position at issue must be one of fact as opposed to one of law or legal theory Second, the prior inconsistent position must have been

accepted by the court Lastly, the party against whom judicial estoppel is to be applied must have intentionally misled the court to gain unfair advantage This bad faith requirement is the determinative factor.

Zinkand v. Brown, 478 F.3d 634, 638 (4th Cir. 2007) (internal quotations omitted); see also Whitten v. Fred's, Inc., 601 F.3d 231, 241-42, abrogated on other grounds by Vance v. Ball State Univ., 133 S. Ct. 2434, L.Ed. 2d 565 (2013) ("Nothing in the record suggests any bad faith on Whitten's part"). Additionally, "[a]s an equitable doctrine, judicial estoppel is invoked in the discretion of the district court and with the recognition that each application must be decided upon its own specific facts and circumstances." King v. Herbert J. Thomas Memorial Hosp., 159 F.3d 192, 197 (4th Cir. 1998); see also Whitten, 601 F.3d at 242.

NVIDIA's argument, briefly stated, is that:

- (1) In this proceeding, Samsung stated that the '602 patent covers use of "data strobe buffers" when those data strobe buffers are part of memory controllers;
- (2) In a PTAB proceeding, Samsung stated that the '602 patent does not disclose data strobe buffers in memory controllers; the PTAB relied on this statement making a decision in an inter partes decision; and

(3) Samsung should be judicially estopped from asserting that the '602 patent covers use of data strobe buffers when those data strobe buffers are part of memory controllers.

(Def.'s PSJ Mem. 3).

Samsung takes issue with all three factual contentions, and argues that as a matter of law NVIDIA has not adequately pled any of the three elements required for judicial estoppel under Fourth Circuit precedent.

1. Samsung's Assertedly Inconsistent Statements

On April 30, 2015 (after Samsung initiated this lawsuit), NVIDIA filed a request for inter partes review ("IPR") of another Samsung patent ("the '734 patent"), alleging that the '734 patent was obvious in light of the '602 patent. (Def.'s PSJ Mem. 4; Pl.'s PSJ Opp. 2). NVIDIA states that, as part of the IPR,

Samsung argued that the '602 patent [does not render] obvious any claim of the '734 patent because the '602 patent "does not disclose a data strobe buffer for a memory controller" Rather, Samsung asserted that the '602 patent is "directed at a data strobe buffer for use in a memory device."

(Def.'s PSJ Mem. 4-5) (emphasis in memorandum). NVIDIA contends that, in this case, Samsung argues a contrary position that the '602 patent discloses embodiments that may be used in both

memory devices and in a memory controller. (Def.'s PSJ Mem. 5, 8).

Samsung does not believe that there is any contradiction between its two positions. In its statement of additional facts, Samsung points out that, in context, Samsung's IPR argument actually stated that the '602 patent only covered a particular type of data strobe buffers, whereas the '734 patent covered the use of that particular type of data strobe buffers in the context of a memory controller, such that '734 had claims not found in '602 and '602 did not render '734 obvious. (Pl.'s PSJ Mem. 2-8).² In this case, Samsung is arguing that any use of the particular type of data strobe buffer infringes '602, whether that particular type of data strobe buffer is used alone, used

² Samsung characterizes its position in simple terms as:

By way of simple analogy, if hypothetical Patent 1 generally discloses a bicycle, but not tassels, Patent 1 would not anticipate or render obvious the claims of Patent 2, which specifically claims a bicycle with tassels The asserted '602 Patent claims recite only a data strobe buffer (a bicycle). The fact that Samsung may have argued that the '602 Patent does not disclose a data strobe buffer in a memory controller (a bicycle with tassels), does not preclude the claims, which require only a data strobe buffer (a bicycle) from being infringed by a data strobe buffer that happens to be in a memory controller (a bicycle that happens to have tassels."

(Pl.'s PSJ Mem. 7). Samsung argues that before PTAB, it argued that Patent 1 does not render Patent 2 obvious, and in this case, it is arguing that infringement of Patent 1 plus some additional feature infringes Patent 1. (Pl.'s PSJ Mem. 7-8).

in the context of a memory controller, or used in any other context.

Stated somewhat simply, Samsung's position is that:

- The '602 patent claims (X). Any use of (X), whether it be plain (X) or (X)+Z or (X)+A, is infringement;
- In the IPR, Samsung claimed that the '602 patent did not render '734 obvious, because, while the '602 claimed (X), the '734 claimed (X)+Z. The addition of Z makes '734 non-obvious in light of '602;
- Samsung accuses NVIDIA of infringing its '602 patent by way of (X)+Z, which necessarily involves using (X) along the way; and
- The fact that Samsung stated that "'602 teaches (X). '602 does not teach (X)+Z, so '734 is not obvious in light of '602" during the IPR does not mean that '602 does not protect (X) when (X) is used in the context of (X)+Z: it just means that (X)+Z is not obvious in light of (X).³

³ As a rule, "[t]hat which infringes, if later, would anticipate, if earlier." Peters v. Active Mfg. Co., 129 U.S. 530, 537, 9 S. Ct. 389, 392, 32 L. Ed. 738 (1889). However, there is not enough information in NVIDIA or Samsung's briefing to tell whether NVIDIA is infringing '602 in exactly the same way that '734 was anticipated (or made obvious) by '602.

In its Reply, NVIDIA argues that Samsung argued the difference between '602 and '734 was "fundamental," and that Samsung is now arguing that the difference between '602 and

Thus, from the undisputed facts on the record, Samsung's statements before the PTAB and its statements in this case do not appear contradictory or inconsistent. This means that the first requirement of judicial estoppel is not met. E.g., Sedlack v. Braswell Servs. Grp., Inc., 134 F.3d 219, 224 ("Since these positions are not inconsistent, judicial estoppel cannot apply.")

2. Whether The PTAB "Accepted" Samsung's Position

Even if Samsung's arguments were inconsistent, NVIDIA would have to satisfy the second requirement of judicial estoppel: that the PTAB accepted the assertedly inconsistent position. NVIDIA argues that PTAB "adopted Samsung's position as its sole basis for declining to institute the IPR requested by NVIDIA [regarding obviousness of the '734 patent]." (Def.'s PSJ Mem. 6, 9). Samsung argues, essentially, that the PTAB accepted "'602 does not teach memory controllers (such that it does not make '734's patent on '602 plus memory controllers obvious)," but that PTAB did not base its decision on NVIDIA's erroneous misrepresentation that "'602 is never infringed when used in the context of a memory controller." (Pl.'s PSJ Opp. 3).

NVIDIA's process is "trivial." (Def.'s PSJ Reply 1). However, because NVIDIA does not argue that NVIDIA's process is identical to '734, it is not inconsistent for Samsung to argue that "the difference between '734 and '602 is fundamental, but the difference between NVIDIA's process and '602 is trivial."

Because Samsung's statements before the PTAB and this Court were not inconsistent, the PTAB cannot possibly have relied upon an inconsistent statement. Moreover, even if Samsung's statements are inconsistent, it appears that Samsung's description of the PTAB decision is the correct one. In either event, NVIDIA has not demonstrated the second element of judicial estoppel.

3. Whether NVIDIA Has Established That Samsung Acted With Bad Faith Or Intent To Mislead This Court

Even if NVIDIA had established that Samsung took contrary positions before the PTAB on which the PTAB relied, judicial estoppel is not applicable here because NVIDIA has not established the third element of judicial estoppel: bad faith or intent to mislead.

NVIDIA emphasizes that it "repeatedly notified Samsung that [Samsung] had taken inconsistent factual positions," and that Samsung's receipt of this notice proves that Samsung acted in bad faith or with intent to mislead this Court. (Def.'s PSJ Mem. 5, 9-10). However, NVIDIA has established at most that Samsung knowingly took contradictory positions, not that Samsung acted with intent to mislead the Court or with bad faith.⁴ NVIDIA also

⁴ Additionally, Samsung points out that parties "frequently raise different arguments in district courts than they do in PTAB

dropped the "intent to mislead" argument from its reply briefing. (Def.'s PSJ Reply 1-4).

At the hearing on this motion, NVIDIA's counsel conceded that NVIDIA had no evidence of subjective bad faith, but stated that bad faith could be inferred from Samsung's act of knowing contradiction. (Tr. Dec. 1, 2015 Hr'g 7:13-9:21). The Fourth Circuit sometimes permits an inference of bad faith or intent to mislead the court where a party continues to assert factually contradictory positions which "indicate that [party's] position was deliberately and not inadvertently taken." King, 159 F.3d at 197-98; see also, e.g., Vanderheyden v. Peninsula Airport Comm'n, No. 4:12cv46, 2013 WL 30065, at *12 (E.D. VA. Jan. 2., 2013) (noting that judicial estoppel is commonly used when a debtor knows that he has a legal claim, fails to comply with the statutory duty to disclose that claim in bankruptcy, and then attempts to sue on the basis of that claim). In cases where courts infer bad faith, however, the inconsistent positions tend to be stark and factually obvious: a person is able to do a job or is not able to do a job; a person knows of a legal claim or does not know of a legal claim. In such cases, bad faith is inferred because the different factual positions are so

proceedings because the PTAB and district courts" have different standards and purposes. (Pl.'s PSJ Opp. 8-9).

obviously contradictory that the party could only be asserting them intending to mislead the court.

Such an inference is not appropriate in this case because Samsung's positions are not clearly inconsistent. In this case, even if Samsung's positions were inconsistent, they were not so inconsistent that a reasonable person could not believe that the positions were legally consistent.⁵ In other words, Samsung could plausibly and reasonably taken the positions in question before the PTAB and this Court in good faith. On this record, NVIDIA has not adequately proven bad faith or intent to mislead the Court under the Fourth Circuit's rules for judicial estoppel, even if Samsung's positions are factually inconsistent.

4. Conclusion on Judicial Estoppel

For the reasons stated above, the Court finds that NVIDIA has not carried its burden to show judicial estoppel. The Court, exercising its discretion to grant equitable relief, declines to apply judicial estoppel there.

⁵ The Court's own conclusion, supra, that the positions were not legally inconsistent is prima facie evidence that reasonable minds could, without bad faith or intend to mislead, conclude that Samsung's positions were legally consistent.

B. Whether The '602 Patent Is Invalid For Lack Of Written Description

NVIDIA argues that, if judicial estoppel forecloses Samsung from asserting a position contrary to "the '602 patent does not disclose use of the '602 technology (a data strobe buffer) in a memory controller," then the '602 patent is invalid for lack of written description, because the claims (use of data strobe buffers in any context, including memory devices or controller devices) would exceed the scope of the written description (data strobe buffers only in the context of memory devices). (Def.'s PSJ Mem. 10). Because judicial estoppel has not been established, this argument need not be addressed.

Moreover, Samsung's inability to take that position would not invalidate the patent for lack of written description even if judicial estoppel foreclosed Samsung from asserting that "'602 does not disclose the use of a data strobe buffer in a memory controller." NVIDIA does not contend that the '602 written description does not teach how to carry out the method/process used to make memory strobe buffers, the method/process claimed. Instead, NVIDIA argues that the '602 written description does not teach how to carry out the method/process used to make memory strobe buffers and then use those memory strobe buffers in the context of memory controllers. (Def.'s PSJ Mem. 11). This argument is irrelevant.

The written description describes a process for making memory strobe buffers, and the claims claim a method for making memory strobe buffers. Samsung did not need to claim every possible use for those memory strobe buffers in the written description. Samsung correctly identifies the rule that:

although the specification often describes very specific embodiments of the invention, [the Federal Circuit has] repeatedly warned against confining the claims to those embodiments In particular, [the Federal Circuit has] expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.

Phillips v. AWH Corp., 415 F.3d 1303, 1323 (Fed. Cir. 2005).⁶ So long as the written description enables a person of ordinary skill in the art to practice all the claims, so long as a claim does not run counter to the purposes stated in the specifications, and so long as persons of ordinary skill in the art would not confine the claim terms to the exact representations depicted in the environments, the written description should not impose additional limitations on the claims. Id.

⁶ NVIDIA mischaracterizes Samsung's source of law, characterizing Samsung as relying on the Manual of Patent Examining Procedure. (Def.'s PSJ Reply 5). Samsung does cite the manual, but its argument ultimately rests on Phillips, which applies here.

LizardTech, Inc. v. Earth Resources Mapping, Inc., 424 F.3d 1336, 1345 (Fed. Cir. 2005), on which NVIDIA relies, is not to the contrary. In LizardTech, the issue was that the written description taught one specific process, but did not teach the broader process recited in one of the claims. LizardTech, 424 F.3d at 1344 (“The problem is that the specification provides only one method for creating a seamless DWT, which is to ‘maintain updated sums’ of DWT coefficients. That is the procedure recited by claim 1. Yet claim 21 is broader than claim 1 because it lacks the ‘maintain updated sums’ limitation.”). NVIDIA does not argue that Samsung’s written description does not enable the ‘602 claims at issue, so LizardTech is inapplicable.

Analogizing to Phillips, Samsung has a patent for making a lightbulb, with adequate claims and written description. It is said that NVIDIA infringes by making the lightbulb, and then sticking the lightbulb in a flashlight. Samsung’s lightbulb patent would not be inadequate for lack of written description for failure to mention “and the lightbulb may be placed in a flashlight.”

Thus, even assuming that judicial estoppel should apply, the ‘602 patent is not invalid for lack of written description.

V. PRE-SUIT DAMAGES ('902 AND '675)

A. Direct and Contributory Infringement

NVIDIA originally challenged the availability of pre-trial damages under 35 U.S.C. § 271(b) (induced infringement), 35 U.S.C. § 271(c) (contributory infringement), and 35 U.S.C. § 271(g) (importation of a product-by-process). (Def.'s PSJ Mem. 14-15). After NVIDIA filed its Motion for Partial Summary Judgment, Samsung amended its damages report to remove pre-suit damages for any violations of § 271(b) or § 271(c). (Def.'s PSJ Reply 10). In its memorandum in opposition to this motion, Samsung confirmed that it does not seek damages for induced or contributory infringement. (Pl.'s PSJ Br. 21-22). Hence, that aspect of NVIDIA's motion for partial summary judgment will be granted.

B. Infringement By Importation

Samsung has not, however, yielded on the issue of pre-trial damages for importation of the product-by-process.

NVIDIA argues that it is entitled to use the safe harbor provision of 35 U.S.C. § 287(b), which would preclude Samsung from seeking pre-trial damages for NVIDIA's importation of an infringing product-by-process under § 271(g) prior to NVIDIA receiving actual knowledge that the imported product-by-process was created by an infringing process. (Def.'s PSJ Mem. 11-12).

The parties do not dispute that NVIDIA received notice when Samsung filed this action on November 12, 2014. (Def.'s PSJ Mem. 11-12).

Samsung argues that it is entitled to pre-suit damages because: (1) the "actual knowledge" standard is inapplicable to NVIDIA's circumstances because the patents in question are process patents; (2) NVIDIA's direction or control of third-party TSMC makes it ineligible for § 287(b) protection due to the limitations of §287(b)(1), and/or (3) § 287(b)(2) protects only infringers who take possession of a product made with a patent process and NVIDIA never takes possession of the products in question.

1. Applicable Law: The § 287(b) Safe Harbor

As a general matter, patentees are entitled to damages not less than a reasonable royalty. 35 U.S.C. § 284. Section 287, however, places limitations on damages.

(1) An infringer under 271(g) shall be subject to all provisions of this title relating to damages and injunctions except to the extent those remedies are modified by this subsection or ... the Process Patent Amendments Act. The modifications of remedies provided in this subsection shall not be available to any person who -

- (A) practiced the patented process;
- (B) owns or controls, or is owned or controlled by, the person who practiced the patented process; or
- (C) had knowledge before the infringement that a patented process was used to make the product the

importation, use, offer for sale, or sale of which constitutes the infringement.

(2) No remedies for infringement under section 271(g) shall be available with respect to any product in the possession of, or in transit to, the person subject to liability under such section before that person had notice of infringement with respect to that product. The person subject to liability shall bear the burden of proving any such possession or transit.

35 U.S.C. § 287(b).

2. Argument and Application of the § 287(b) Safe Harbor

NVIDIA complains that Samsung's damages claim encompasses sales of products manufactured by allegedly infringing processes between 2009 and November 12, 2014, the date on which NVIDIA received (by way of service in this action) actual knowledge that the products NVIDIA imports and sells allegedly violate Samsung's '902 and '675 patents. (Def.'s PSJ Mem. 11-12). NVIDIA states that the infringing products are manufactured by a contractor, Taiwan Semiconductor Manufacturing Company ("TSMC"). (Def.'s PSJ Mem. 13). The parties agree that NVIDIA does not own TSMC, or vice-versa. (Def.'s PSJ Mem. 13; Pl.'s PSJ Opp. 11). NVIDIA asserts, though Samsung disputes, that NVIDIA does not control TSMC. (Def.'s PSJ Mem. 13; Pl.'s PSJ Opp. 11). NVIDIA states that TSMC treats its fabrication processes as highly confidential and discloses "limited" information about those processes to customers, such that NVIDIA did not know that TSMC

practiced the claims of the '675 patent until Samsung filed the instant suit. (Def.'s PSJ Mem. 13-14; Pl.'s PSJ Opp. 11-12).

NVIDIA argues that, because it has been accused of importing a product-made-by-infringing-process under § 271(g), it cannot be held liable for pre-notice damages under the protections of § 287(b) unless NVIDIA falls into one of the three exceptions laid out in § 287(b)(1): (A) that NVIDIA practiced the patented process itself; (B) that NVIDIA owns or controls TSMC (or vice versa); or (C) that NVIDIA had knowledge that the process infringed.

Samsung agrees that exceptions (A) and (C) do not apply. Samsung does argue that: (1) NVIDIA controls TSMC under § 287(b)(1)(B) such that NVIDIA is not exempt from pre-suit damages; and (2) NVIDIA never took possession of the products under § 287(b)(2), so that NVIDIA is not exempt from pre-suit damages.

a. Samsung Has Pled Acts Sufficient To Raise A Material Dispute About NVIDIA's "Control" Of TSMC, And Thus About NVIDIA's Eligibility For The § 287(b) Safe Harbor

In defining the legal standard for "ownership or control," NVIDIA argues that "control" in the context of § 287(b)(1)(B)'s "own or control" means that NVIDIA must have a controlling interest in TSMC (or vice-versa) for the § 287(b)(1)(B) exception to apply. (Def.'s PSJ Mem. 16-17). NVIDIA mostly

argues that "control" in this context should mean corporate ownership. (Def.'s PSJ Mem. 16).⁷

NVIDIA's corporate ownership interpretation of "control" in the context of the statute would render the term "own" superfluous. That, of course, is an unacceptable approach to statutory construction. E.g., Marx v. Gen. Revenue Corp., 133 S. Ct. 1166, 1178, 185 L. Ed. 2d 242 (2013) (noting the canon against surplusage). Indeed, the rules of construction require that each term of a statute be given effect if at all possible. E.g., Lamie v. U.S. Tr., 540 U.S. 526, 536, 124 S. Ct. 1023, 1031, 157 L. Ed. 2d 1024 (2004) (noting that canon against surplusage is important though not absolute). Anti-surplusage canons of statutory construction alone teach that "control" is different than "own."

⁷ In its original briefing, NVIDIA pulled its definition for "own or control" from the section of the U.S. Code dealing with the liability of parent companies for sanctions violations. (Def.'s PSJ Mem. 16 n. 3) (citing 22 U.S.C. § 8725(a)(2)). In its reply brief, NVIDIA found a Federal Circuit case which states that "a parent corporation clearly 'directly or indirectly owns or controls' its subsidiaries." (Def.'s PSJ Reply 13) (quoting Union Pac. Corp. v. United States, 5 F.3d 523, 526 (Fed. Cir. 1993)). The citation to the Federal Circuit, without context, is slightly misleading because Union Pacific is a tax case, rather than a patent case. More importantly, in context the quote simply stands for the proposition that parent corporations necessarily own and control their subsidiaries - not that ownership or control can only be established in situations of complete corporate ownership/control.

Additionally, as Samsung pointed out in its briefing and at the oral argument, the legislative history of the Process Patents Amendments Act contains elaboration on the meaning of ownership and control, making resort to other statutes unnecessary. (Tr. Dec. 1, 2015 Hr'g, 33:13-34:17; Pl.'s PSJ Opp. 17-18) (relying on S. Rep. 100-83, Process Patents Amendments Act of 1987 (June 23, 1987)). The legislative history of the Act shows that § 287(b) is meant to "shelter only purchasers who are remote from the manufacturer and are not in the position to protect themselves in contracts with the party who is actually using the [patented] process." (Pl.'s PSJ Opp. 17-18) (relying on S. Rep. No. 100-83, at 42). NVIDIA actually quotes the same report for a similar proposition, that "[t]hose who are closely connected with carrying out the process in the manner outlined' cannot avail themselves of the § 287(b) safe harbor." (Def.'s PSJ Mem. 16) (quoting S. Rep. 100-83, at 52). The parties, accordingly, both acknowledge that an importer which is "closely connected" to the party using the patented process cannot use the safe harbor provision.⁸

⁸ NVIDIA reneges on this acknowledgement in its Reply, where it argues purely that "[c]ontrol in the statutory phrase 'own or control' requires the power to assume responsibility ... for the decisions of the other company, whether by contract, and equity position, or control of the board of directors." (Def.'s PSJ Reply 13). As noted supra, however, this interpretation clearly

To the end of establishing an absence of close connection, NVIDIA argues that "NVIDIA does not own or control TSMC ... NVIDIA is one of hundreds of customers who rely upon TSMC." (Def.'s PSJ Mem. 13). To establish close connection, Samsung cites several affidavits in which NVIDIA officials referred to TSMC as its "primary partner," in which NVIDIA officials stated that NVIDIA "selects exactly which infringing process will be used to manufacture its products," in which NVIDIA officials stated that TSMC always undertook NVIDIA's suggestions and had only once refused to provide information about processing, and in which NVIDIA officials stated that TSMC shares design information with NVIDIA. (Pl.'s PSJ Opp. 12-13). NVIDIA also cites Infosint, S.A. v. H. Lundbeck A/S, 612 F. Supp. 2d 402, 404-05 (S.D.N.Y. 2009) for the proposition that strategic partnerships provide a sufficient indicia of "control" to prevent finding in NVIDIA's favor on the control issue at the summary judgment stage. (Def.'s PSJ Mem. 18).

Under the legal definition of "control" acknowledged by the parties - that is, whether NVIDIA and TSMC were "closely connected" or not "remote" - Samsung has shown sufficient,

violates anti-surplusage canons of statutory interpretation and cannot stand.

affidavit-backed facts that a reasonable jury could find that NVIDIA controlled TSMC.

That said, the Court is not convinced that the parties' papers provide the correct standard for § 287(b)(1)(B). The Federal Circuit's "direction and control" line of cases appears more appropriate. As the Federal Circuit recently summarized:

[f]or method claims ... a patent holder must establish that an accused infringer performs "all the steps of the claimed method, either personally or through another acting under his direction or control..." We have stated previously that "the control or direction standard is satisfied in situations where the law would traditionally hold the accused direct infringer vicariously liable for the acts committed by another party that are required to complete performance of a claimed method."

Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech., 709 F.3d 1348, 1362 (Fed. Cir. 2013) (internal citations omitted); see also Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1328 (Fed. Cir. 2008); BMC Res., Inc. v. Paymentech, L.P., 498 F.3d 1373, 1379 (Fed. Cir. 2007).⁹ Other district courts have found

⁹ BMC, Muniauction, and their progeny deal with divided infringement, where the defendant performs part of the infringing method and a third party performs completes the infringing method. Divided infringement is not directly akin to importation. However, they are roughly analogous in that TSMC performs part of the infringement (the process) and NVIDIA performs part of the infringement (bringing the product-by-process into the United States). Additionally, the statutes providing liability for divided infringement and for importation

that "to raise a fact issue as to direct infringement under the direction-or-control standard, the alleged infringer must cause third parties to perform steps of the claimed method in accordance with specific instructions and requirements." Emtel, Inc. v. Lipidlabs, Inc., 583 F. Supp. 2d 811, 834 (S.D. Tex. 2008) (noting Rowe Int'l Corp. v. Ecast, Inc., 586 F. Supp. 2d 924, 930-33 (N.D. Ill. 2008); Glob. Patent Holdings, LLC v. Panthers BRHC LLC, 586 F. Supp. 2d 1331, 1335 (S.D. Fla. 2008) aff'd, 318 F. App'x 908 (Fed. Cir. 2009)). Samsung has made similar allegations here, stating that NVIDIA "selects exactly which infringing process will be used to manufacture its products." (Pl.'s PSJ Opp. 12-13). Under a BMC/Muniauction-derived standard of "control," Samsung has also shown sufficient affidavit-backed facts from which a jury could find that NVIDIA controlled TSMC's actions and is accordingly ineligible for the § 287(b) safe harbor.

have the same general goal of not letting defendants escape liability by having a third party do part of their dirty work. (S. Rep. No. 100-83, at 42). In any case, divided infringement is much closer to this case than the definition for "control" on which NVIDIA relies, which come from the federal statute on liability of parent companies for sanctions violations and from tax cases. (Def.'s PSJ Mem. 16 n. 3) (quoting 22 U.S.C. § 8725(a)(2); see also (Def.'s PSJ Reply 13) (quoting Union Pac. Corp., 5 F.3d at 526)).

Moreover, at oral argument NVIDIA's attorney stated that NVIDIA does not believe that "direction or control" "changes the operative legal" concept behind "owns or controls." (Tr. Dec. 1, 2015 Hr'g, 66:15-19).

Because a reasonable jury could find that NVIDIA "controlled" TSMC, NVIDIA is not entitled to summary judgment on the issue of pre-trial damages under either the "closely connected" argument by the parties or the BMC/Muniauction standard of "control."

b. Samsung Has Shown Facts Sufficient To Raise A Material Issue Of Fact Over Whether NVIDIA "Imported" The Product, But That Is Irrelevant

Samsung fusses that "[s]eparate from NVIDIA's failure to qualify as one of Section 287(b)'s protected class of infringers, NVIDIA's motion independently fails because it does not establish that the infringing products were in its possession or in transit to it, as the statute requires." (Pl.'s PSJ Mem. 18). NVIDIA asserts that it had constructive possession of the accused products when it stored them in certain overseas third-party warehouses. (Def.'s PSJ Reply 12).¹⁰

The Court, however, is not convinced that possessing (or shipping) products under § 287(b)(2) is a prerequisite for the safe harbor of § 287(b)(1). Rather, § 287(b)(1) and § 287(b)(2) appear to be two independent safe harbors. § 287(b)(1) protects importers of a product-by-process absent (A) practice, (B)

¹⁰ All of NVIDIA's support for the "constructive possession" theory comes from criminal cases (Def.'s PSJ Reply 12 & 12 n. 3).

ownership or control, or (C) knowledge. § 287(b)(2) says that importers cannot be held liable for damages for products in inventory or in transit at the time the importer acquires actual knowledge. Nothing about the structure of § 287 suggests that the importer must take physical receipt of the items under §287(b)(2) as a predicate for safe harbor status under § 287(b)(1); rather, the provisions are alternate paths for limiting importers' damages.

Samsung may be correct that NVIDIA does not take physical receipt of imported products-by-process, but that fact is irrelevant because (1) possession under § 287(b)(2) is not a prerequisite for the safe harbor of § 287(b)(1); and (2) Samsung has raised a material issue of fact on control which precludes granting summary judgment on the basis of § 287(b)(1), wholly apart from whether § 287(b)(2) is a prerequisite or a separate safe harbor.

In sum, Samsung has raised facts sufficient that a reasonable jury could find that NVIDIA controlled TSMC under § 287(b)(1)(B), so that NVIDIA could be ineligible for the safe harbor of § 287(b)(1). Accordingly, these genuine disputes of material fact preclude issuing partial summary judgment on the issue of pre-suit damages to the extent that they are in the case.

VI. DILIGENCE, REDUCTION, AND THE LEE APPLICATION

Issued patents may be invalid due to obviousness in light of prior art. 35 U.S.C. § 102. When a defendant raises invalidity due to obviousness in an infringement action based on a particular piece of prior art, a plaintiff may assert that he conceived of his patented invention prior to the conception of that particular prior art, effectively antedating his own patented invention and eliminating the prior art as an obviousness-inducing reference. E.g. Creative Compounds, LLC v. Starmark Labs., 651 F.3d 1303, 1311 (Fed. Cir. 2011); Mahurkar v. C.R. Bard, Inc., 79 F.3d 1572, 1577 (Fed. Cir. 1996).¹¹ However, a plaintiff may only antedate his patent if he exercised reasonable diligence in reducing his concept to practice in the critical period between the publication of the alleged prior art and the plaintiff's reduction to practice. Id.

In its third invalidity contention, NVIDIA asserts that the "Lee Application" is invalidating prior art with respect to the '902 patent; Samsung asserts that it conceived the '902 patent before publication of the Lee Application and pursued the patent with reasonable diligence until reduction to practice. NVIDIA

¹¹ The "reasonable diligence" concept originates in interferences, but "[t]he Federal Circuit has 'borrowed from the interference context' ([pre-AIA] 35 U.S.C. § 102(g)) to resolve priority under 35 U.S.C. § 102(a)." (Def.'s PSJ Mem. 26 n.7) (relying on Mahurkar, 79 F.3d at 1577)).

asserts that Samsung has not produced legally sufficient evidence of reasonable diligence. (Def.'s PSJ Mem. 21-29; Pl.'s PSJ Opp. 22-30). The parties agree that:

- The inventor who assigned the patent to Samsung conceived of the '602 patent before March 22, 1996.
- The Lee Application is a piece of prior art published on March 22, 1996. (Pl.'s PSJ Mem. 24; Def.'s PSJ Mem. 24-25).
- Samsung constructively reduced the '902 patent to practice on June 28, 1996, when it filed its own patent application before the Korean patent authority ("KIPO").

(Pl.'s PSJ Mem. 27-28).

The parties disagree on (1) the requirements of "reasonable diligence" and (2) whether Samsung has adequately proven and corroborated reasonable diligence during the critical period between March 22, 1996 and June 28, 1996, so that Samsung is entitled to antedate its conception prior to the Lee Application (and thus remove the Lee Application as invalidating prior art). (Def.'s PSJ Mem. 26-29; Pl.'s PSJ Mem. 27-30).

A. Legal Standard For Reasonable Diligence

Reasonable diligence is an issue of fact for the jury. Monsanto Co. v. Mycogen Plant Sci., Inc., 261 F.3d 1356, 1367-68 (Fed. Cir. 2001). The party challenging validity must prove all

issues relating to the status of any asserted prior art by clear and convincing evidence. Mahurkar, 79 F.3d at 1576. The party challenging validity must also prove lack of reasonable diligence by clear and convincing evidence. Mahurkar, 79 F.3d at 1578. Corroboration is required to support testimony regarding reasonable diligence. Pryce v. Symsek, 988 F.2d 1187, 1196 (Fed. Cir. 1993).

NVIDIA, relying on two district court cases, asserts that an inventor's reasonable diligence requires continuous activity toward reduction to practice and proof of specific details on activity during the critical period. (Def.'s PSJ Mem. 26) (relying on Illumina Inc. v. Complete Genomics Inc., No. C-10-05542 (EDL), 2013 WL 1282977, at *7) (N.D. Cal. Mar. 26 2013); Loral Fairchild Corp. v. Victor Co. of Japan, Ltd., 931 F. Supp. 1014, 1030 (E.D.N.Y. 1996)). Returning to Federal Circuit precedent, NVIDIA asserts that a prosecuting attorney must prove reasonable diligence with records which show "the exact days when activity specific to the patentee's application occurred." (Def.'s PSJ Mem. 26) (relying on In re Enhanced Sec. Research, LLC, 739 F. 3d 1347, 1358 (Fed. Cir. 2014)).

In particular, NVIDIA points to D'Amico v. Koike, 347 F.2d 867, 871 (C.C.P.A. 1965) for the proposition that two short notes (that the prosecuting attorney considered and approved the

application on one occasion, and prepared the formal papers on another) in a two month critical period were insufficient for reasonable diligence. (Def.'s PSJ Mem. 27). However, the D'Amico court actually gave trial courts a good deal of leeway in determining whether a record showed reasonable diligence.

[S]uch a ruling must depend on a great number of circumstances such as, but not limited to, complexity of the invention, length of the application, detail of the drawings, experience, workload and availability of the attorney, availability of the draftsman and the inventor during the period involved, size of the attorney's staff, procedure and policy in reviewing the application, type and thoroughness of the review, number of people involved in preparing the application and their location, and the number of changes which the subject application underwent.

Certainly, evidence as to all these factors need not be of record; possibly evidence as to only one or two would suffice in certain cases. However, in the present appeal we know essentially nothing about the handling of the application during the two-month period except that (a) Breen did in fact "consider and approve" the application, and (b) the other work, i.e., checking, placing in final form, and preparing the formal papers, was done sometime. There is no end to the inferences which might be drawn from the scanty record before us and we prefer not to indulge in them, but we cannot overlook the fact that Koike's priority date falls nearly midway in this two-month period and it is certainly possible that all of D'Amico's activity took place during the period prior to October 29, whereupon the application lay idle for nearly one month awaiting execution by the inventor. Be that

as it may, that month is the critical month and the record contains no evidence, even of the weakest sort, whether in it anything occurred.

D'Amico, 347 F.2d at 871. D'Amico did not lose only because his prosecuting attorney only logged two entries of work on the patent in the critical period, but because there was no other evidence of special circumstances.¹²

Samsung contends that reasonable diligence does not require a party to work constantly on an invention or to drop all other work. (Pl.'s PSJ Opp. 27) (citing Monsanto, 261 F.3d at 1369). That is correct. Samsung points to Rines v. Morgan, 250 F.2d 365, 369 (C.C.P.A. 1957) for the proposition that the diligence determination must be made on the circumstances of each case, and that "[i]t is not necessary that an inventor or his attorney should drop all other work and concentrate on the particular invention involved; and if the attorney has a reasonable backlog of work which he takes up in chronological order and carries out expeditiously, that is sufficient." (Pl.'s PSJ Opp. 29) (quoting on Rines, 250 F.2d at 369). That is also correct.

¹² NVIDIA also correctly notes that attorneys must provide dates of activity to prove reasonable diligence in prosecution. In re Enhanced Sec. Research, LLC, 739 F.3d 1347, 1358 (Fed. Cir. 2014). However, evidence of attorney diligence need not come straight from the prosecuting attorney. In D'Amico, the court considered logs of a designated recordkeeper. D'Amico, 347 F.2d at 870.

Samsung's argument falters, however, where Samsung argues that "courts have found reasonable diligence even when there are gaps of several months in the relevant activities." (Def.'s PSJ Opp. 27) (relying on Rey-Bellet v. Engelhardt, 493 F.2d 1380, 1389 (C.C.P.A. 1974)). This is not strictly true. Courts have found reasonable diligence when there are gaps of several months, but courts have not held that a gap of several months is reasonable per se. As in D'Amico, the reasonableness of the gap depends on the circumstances. For instance, in Rey-Bellet, several months of inactivity was reasonable because the inventor needed to test his invention on a monkey, and his employer was short on monkeys. Rey-Bellet, 493 F.2d. 1389. See also D'Amico, 347 F.2d at 870 (recognizing that reasonable diligence does not require attorneys to drop all projects and work on one prosecution, but refusing to decide, solely on the basis of that principle and without other documentary evidence, that it was per se reasonable for an attorney to take two months to prosecute a patent).

The better statement of law is that a period of several months of inactivity may be reasonable, given evidence of certain circumstances. However, such inactivity must be documented and, in the case of delay by the prosecuting attorney, activity must be documented with specific dates.

B. Parties' Assertions Of Fact

The question, then, is whether Samsung has admissible evidence from which a reasonable jury could find reasonable diligence during the critical period.

NVIDIA asserts that Samsung has shown no facts on reasonable diligence, such that no jury could find that Samsung exercised reasonable diligence. (Def.'s PSJ Mem. 26-29). NVIDIA grounds its argument in the fact that "[t]he only thing Samsung points to during the 99 day long critical period are three entries in an internal Samsung database," and that there are gaps as long as a month between the three entries. (Def.'s PSJ Mem. 26-27). NVIDIA argues that the Federal Circuit has found that the "reasonable diligence" standard was not met as a matter of law in cases where the attorney did much more work than evinced in Samsung's three entries. (Def.'s PSJ Mem. 26-28).

Samsung argues that "NVIDIA's motion ignores evidence that [Samsung employees and attorneys] all worked diligently during the critical period." (Pl.'s PSJ Opp. 28). In particular, Samsung points to: (1) the high volume of patents Samsung was processing in 1996; (2) the diligence of in-house counsel in passing the patent off to outside counsel for prosecution; (3) the high volume of patents the outside counsel was processing in 1996; (4) the fact that outside counsel nevertheless expedited

the prosecution; and (5) Samsung's quick turn-around in processing and finalizing the application once it was returned by outside counsel. (Pl.'s PSJ Opp. 28-30). Samsung's diligence evidence relies on (1) the testimony of Sung Pil Kim, a manager in Samsung's IP department in 1996, and (2) a printout from a Samsung database showing activity on the patent on April 3, May 17, and May 22, 1996. (Def.'s PSJ Reply 16-17).

In sum, Samsung has made out a jury issue on the issue of reasonable diligence.

NVIDIA's reply does not establish otherwise. First, NVIDIA argues that lack of testimony from Samsung's outside counsel means that there is "no evidence of attorney diligence." (Def.'s PSJ Reply 16). However, evidence from the prosecuting attorney is not necessary. See D'Amico, 347 F.2d at 870 (considering a draftsman recordkeeper's time logs as evidence).

Second, NVIDIA also asserts that the Kim testimony and the database printout are insufficient as a matter of law to show due diligence under D'Amico. (Def.'s PSJ Reply 16-17). Specifically, NVIDIA attacks Kim's testimony because Kim does not have specific recollection about what specific work was done on what specific days, and admitted that he was guessing. (Def.'s PSJ Reply 16). But Kim's lack of recollection is bolstered by the database, which NVIDIA acknowledges does

provide specific dates. (Def.'s PSJ Reply 17). NVIDIA then attacks the database for failing to provide specific detail, and for having gaps as long as one month between activity. (Def.'s PSJ Reply 17). As to the first, the short entries in the database are bolstered by Kim's recollections. As to the second, it is true that in D'Amico activity logs spaced apart were insufficient for reasonable diligence. But, in D'Amico, there was no evidence of heavy workload or any of the "great number of circumstances" which impact a reasonableness finding. D'Amico, 347 F.2d at 871. By contrast, in this case Kim's testimony provides a general picture that both Samsung and the outside counsel were pushing themselves to put out substantial quantities of patent applications. (Pl.'s PSJ Opp. 28). That is enough to distinguish this case from D'Amico. Kim's testimony and the database would individually be insufficient to show reasonable diligence. Together, however, they provide concrete dates and a picture of the circumstances at Samsung and its outside counsel which indicate that a reasonable jury could find reasonable diligence. Additionally, Kim and the database corroborate each other, fulfilling the Pryce corroboration requirement. Pryce, 988 F.2d at 1196.

Third, NVIDIA argues that, even making reasonable inferences in the non-moving party's favor, the Court cannot

deny summary judgment because: (1) the evidence is not competent; (2) Kim's testimony is not specific enough about the persons who performed work; (3) Kim's testimony is not specific enough about the dates upon which work was done; and (4) his testimony is not corroborated. (Def.'s PSJ Mem. 20). However: (1) the evidence need not be given by the prosecuting attorney, see D'Amico; (2) NVIDIA fails to present a case saying the prosecuting attorneys must be named; (3) the database provides the necessary dates; and (4) Kim's testimony is corroborated by the database. Drawing all reasonable inferences in Samsung's favor, there is a genuine dispute of material fact, so that a reasonable jury could find that Samsung and its outside counsel exercised reasonable diligence during the critical period. Thus, NVIDIA is not entitled to partial summary judgment on this issue.

Finally, at oral argument Samsung asserted, and NVIDIA conceded, that most of the cases NVIDIA relies upon were largely not decided at summary judgment, but, rather, were made after the facts had been presented to the factfinder. (Tr. Dec. 1, 2015 Hr'g, 54:13-18, 62:6-18, 64:19-65:6). The Court agrees with Samsung that a fact-intensive inquiry such as reasonable diligence is best evaluated for legal sufficiency after all the evidence has been presented.

CONCLUSION

For the foregoing reasons, NVIDIA's MOTION FOR PARTIAL SUMMARY JUDGMENT (Docket No. 294) will be partially on the unopposed sub-issue of § 287(b) and (c) pre-trial damages. On all other issues, NVIDIA's MOTION FOR PARTIAL SUMMARY JUDGMENT (Docket No. 294) has been denied by previous order (Docket No. 586).

It is so ORDERED.

/s/ *REP*
Robert E. Payne
Senior United States District Judge

Richmond, Virginia
Date: December 16, 2015