

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK

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AMERICAN TECHNICAL CERAMICS CORP.	:
and AVX CORPORATION,	:
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<i>Plaintiffs,</i>	:
	:
-against-	:
	:
PRESIDIO COMPONENTS, INC.,	:
	:
<i>Defendant.</i>	:
	X

MEMORANDUM & ORDER

14-CV-6544 (KAM) (GRB)

MATSUMOTO, United States District Judge:

Plaintiffs American Technical Ceramics Corporation ("ATC") and AVX Corporation (collectively, "plaintiffs") commenced this action on November 6, 2014, against defendant Presidio Components, Inc. ("Presidio" or "defendant"), alleging infringement by Presidio of the following ATC patents: United States Patent No. 6,144,547 ("the '547 Patent"), United States Patent No. 6,337,791 ("the '791 Patent," and together with the '547 Patent, the "patents-in-suit"), and United States Patent No. 6,992,879 ("the '879 Patent"). (ECF No. 1, Compl.)

Plaintiffs seek a determination that Presidio willfully infringed on the patents-in-suit, and injunctive relief prohibiting Presidio from engaging in further infringement.¹

¹ Plaintiffs declined to proceed with their action as to all claims of the '879 Patent, which were cancelled by the U.S. Patent and Trademark Office ("USPTO"). (ECF No. 126, Mem. & Order on Cross-Motions for Summ. J. ("Summ.

Plaintiffs also seek damages from the alleged infringement, and attorneys' fees and costs.

Presently before the court are the parties' respective motions pursuant to *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993). Plaintiffs challenge the testimony of defendant's technical expert, Dr. Michael Randall, and its damages expert, Vincent Thomas, in a single motion, (see ECF No. 152-1, Pls.' Mot.), while defendant challenges the testimony of plaintiffs' experts, Dr. Craig Hillman (technical) and Dr. James Woods (damages), in separate motions, (see ECF No. 154, Def.'s Opp.). The court has previously construed various claim terms in the '547 Patent and the '791 Patent, (see generally ECF No. 79, Claim Construction Order ("Cl. Constr. Order")), considered and ruled on cross-motions for summary judgment, (see Summ. J. Order), and further construed the claim term "terminations" as recited in the '547 Patent, (see ECF No. 136, Supplemental Claim Construction Order ("Supp. Cl. Constr. Order")). This action was briefly stayed while the patents-in-suit underwent *inter partes* review ("IPR"), in which, in relevant part, defendant petitioned the USPTO's Patent Trial and Appeal Board ("PTAB") to challenge the validity of the '879 Patent, claims 1-5 and 7-12

J. Order"); see also ECF No. 116-2, Pls.' Summ. J. Mot. 2 n.1.) Plaintiffs seek injunctive relief only as to the '791 Patent. (See ECF No. 157, Jt. Proposed Pretrial Order 3.)

of the '547 Patent, and claims 1 and 2 of the '791 Patent. (See ECF No. 75, Order Granting Jt. Mot. to Stay.)

The court disposes of the parties' respective motions in turn below, beginning first with plaintiffs' and then turning to defendant's two motions. For the reasons discussed below, plaintiffs' motion is GRANTED. Defendant's motion to preclude Dr. Hillman's testimony is DENIED, and defendant's motion to preclude Dr. Woods' reasonable royalty opinion is GRANTED. Additionally, the court will not admit any expert reports as documentary evidence, but the parties may offer exhibits contained within disclosed expert reports as evidence or as demonstratives, if permitted by the Federal Rules of Evidence, to support testimony not otherwise excluded herein.

BACKGROUND

Plaintiff ATC is a wholly owned subsidiary of plaintiff AVX, and both manufacture electrical components. (Cl. Constr. Order 2.) Plaintiff AVX owns the '547 Patent and ATC is the exclusive licensee. (ECF No. 148-1, Woods Mot. 1.) Plaintiff ATC owns the '791 Patent. (*Id.*) Defendant Presidio also manufactures electrical components, including and at issue in this suit, buried broadband ("BB") capacitors and single layer ("SL") capacitors, which plaintiffs contend practice and, as such, infringe, the patents-in-suit. (Compl. 2-4; ECF No. 146-2, Ex. 1-1, Hillman Rept. 7.)

LEGAL STANDARDS

I. Expert Testimony

A. Applicable Authority

In this patent case the court applies the law of the Federal Circuit to patent issues, and the law of its regional circuit, the Second Circuit, to non-patent and evidentiary issues. *In re Cambridge Biotech Corp.*, 186 F.3d 1356, 1368 (Fed. Cir. 1999); see also *Coconut Grove Pads, Inc. v. Mich & Mich TGR, Inc.*, 222 F. Supp. 3d 222, 250 n.6 (E.D.N.Y. 2016). Thus, questions pertaining to the parties' respective experts' opinions regarding patent infringement and damages calculation, are governed by Federal Circuit authority; questions pertaining to the admissibility of expert witness testimony offered under Federal Rule of Evidence ("FRE") 702 are governed by Second Circuit authority.

B. Federal Rule of Evidence 702

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and

- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. FRE 702 guards against the presentation of insufficiently reliable evidence to the finder of fact. *Conte v. Newsday, Inc.*, No. 06-CV-4859, 2011 WL 2671216, at *4 (E.D.N.Y. July 7, 2011). The proponent of expert testimony bears the burden of establishing the admissibility of the evidence under *Daubert*. *In re Pfizer Inc. Sec. Litig.*, 819 F.3d 642, 658 (2d Cir. 2016).

In *Daubert* the Supreme Court held that the trial court serves a "gatekeeping" function to ensure that only relevant and reliable scientific expert evidence is admitted. *Daubert v. Merrell Dow Pharm.*, 509 U.S. 579, 597 (1993). The Court has also held that the trial court serves the same function for non-scientific expert testimony, including knowledge based on the expert's experience. *Kumho Tire Co. Ltd. v. Carmichael*, 526 U.S. 137, 141, 151-52 (1999). Regardless of the sort of expertise at issue, the Court has emphasized that purpose of the gatekeeping requirement is to ensure that the proposed expert "employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Id.* at 152. The Second Circuit has explained that a district court must ensure an "expert's testimony both rests on a reliable foundation and is relevant to the task at hand."

United States v. Williams, 506 F.3d 151, 160 (2d Cir. 2007) (quoting *Daubert*, 509 U.S. at 597).

District courts also must ensure that “any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Nimely v. City of New York*, 414 F.3d 381, 396 (2d Cir. 2005) (quoting *Daubert*, 509 U.S. at 589). Before admitting expert testimony under FRE 702 and *Daubert*, the district court should make the following determinations: (1) “whether the witness is qualified to be an expert;” (2) “whether the opinion is based upon reliable data and methodology;” and (3) “whether the expert’s testimony on a particular issue will assist the trier of fact.” *Marini v. Adamo*, 995 F. Supp. 2d 155, 179 (E.D.N.Y. 2014) (citing *Nimely*, 414 F.3d at 396–97).

“Rule 702 also requires that there be a sufficiently reliable connection between the methodology and the expert’s conclusions for such conclusions to be admissible.” *Id.* at 180 (citing *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997)). Expert opinions that are “based on data, a methodology, or studies that are simply inadequate to support the conclusions reached” must be excluded as unreliable opinion testimony under *Daubert* and Rule 702. *Amorgianos v. Nat’l R.R. Passenger Corp.*, 303 F.3d 256, 266 (2d Cir. 2002). The Second Circuit has cautioned, however, that although “the district court may . . . exclude opinion evidence where the court concludes

that there is simply too great an analytical gap between the data and the opinion proffered . . . gaps or inconsistencies in the reasoning leading to the expert's opinion go to the weight of the evidence, not to its admissibility." *Restivo v. Hessemann*, 846 F.3d 547, 577 (2d Cir. 2017) (internal quotation marks and citations omitted).

PLAINTIFFS' MOTION

Plaintiffs' challenge the expert testimony of Dr. Randall and Vincent Thomas, defendant's technical and damages experts, respectively. (Pls.' Mot. 1 n.1.) Plaintiffs focus their challenge on four topics which Dr. Randall and Mr. Thomas would address. Plaintiffs first argue Dr. Randall's opinion contradicts the court's claim construction.² (*Id.* at 5-10.) Second, plaintiffs object to Dr. Randall's opinions concerning certain of defendant's capacitors that plaintiffs allege were never produced. (*Id.* at 10.) Third, plaintiffs object to opinions of both Dr. Randall and Mr. Thomas that contradict defendant's own judicial admissions made during discovery. (*Id.* at 13.) Finally, plaintiffs object to Mr. Thomas's opinion testimony stemming from two previous and separate litigations between the parties. (*Id.* at 15-19.)

² Since Dr. Randall completed his report in this case, the court issued a supplemental claim construction. (See Pls.' Mot. 15.)

I. Opinions Contrary to the Court's Claim Construction

Dr. Randall's initial report is dated April 25, 2017, (ECF No. 152-6, Ex. 4, Randall Rept.), and his rebuttal is dated May 26, 2017, (ECF No. 152-5, Ex. 3, Randall Rebuttal). The court construed relevant claim terms for the patents-in-suit on November 7, 2016, and on November 2, 2018. (See Cl. Constr. Order; Supp. Cl. Constr. Order.) As a result, some of Dr. Randall's opinions, rendered before the court issued its Supplemental Claim Construction Order, conflict with the current construction of relevant claim terms. Defendant appears to acknowledge these conflicts, to a point, and concedes Dr. Randall will not offer opinions contrary to the claim construction orders but attempts to clarify how Dr. Randall intends to testify about four general topics. (See, e.g., Def.'s Opp. 1.)

A. Terminations

Defendant contends, correctly, that the court did not construe "terminations" in reference to the accused products. (Def. Opp. 3; see also Supp. Cl. Constr. Order at 26 n.5.) Thus, defendant argues, Dr. Randall should be permitted to opine on whether the external electrode structures of the accused products constitute "externally arranged conductive structures" by reference to their respective microstructures, chemistries, and functions. (Def.'s Opp. 1.) It appears then that defendant

seeks to offer Dr. Randall's opinion that the external electrodes or pads are somehow not conductive structures. Plaintiffs reply that Dr. Randall's prior deposition testimony forecloses this line of argument, as he conceded that "the surface pads of the BB capacitors," specifically the "external electrodes," are "conductive material." (ECF No. 154-3, Pls.' Reply, Reply Ex. 2, Randall Dep. 420:18-23.) However, at oral argument on the parties' *Daubert* motions, defendant's counsel conceded that Dr. Randall would not testify that the external electrodes or surface pads of the accused capacitors are not conductive material. (Transcript of Oral Argument ("Tr.") 5-6, 14.) In light of defendant's concession, the court GRANTS plaintiffs' motion and rules that Dr. Randall may not testify that the surface pads or other external electrodes of the accused capacitors do not constitute terminations.

B. Lateral Sides

Plaintiffs also seek an order that Dr. Randall may not offer an opinion that a capacitor with *any* termination material on the lateral sides of the accused product would not be "substantially L-shaped" and thus could not infringe the '547 Patent. (Pls.' Mot. 7-8.) Defendant appears to concede as much. (Def.'s Opp. 2-3.) However, defendant seeks to have Dr. Randall describe the "accused products and their features, including the termination material on the lateral sides." (*Id.*)

Once again, at oral argument, defendant conceded that Dr. Randall will not testify that termination material on the lateral side of the accused product renders the terminations not "substantially L-shaped," (Tr. 5-6), and plaintiffs' motion is thus GRANTED. However, the court notes the following clarification. Dr. Randall's opinion, expressed in paragraph 223 of his rebuttal, describes the "terminations" of the accused products as extending around the lateral sides of the device body, nearly to the same extent as the terminations extend around the top and bottoms sides, implying that the terminations in the accused products are U-shaped. (See Randall Rebuttal ¶ 223.) This opinion, however, apparently ignores that the accused capacitors' surface pads constitute externally arranged conductive structures—in other words, terminations. Dr. Randall is precluded from offering this opinion without accounting for all externally arranged conductive structures, including surface pads.

C. Numerical Limit

Plaintiffs move the court to preclude Dr. Randall from offering an opinion that there is a numerical limit on the measurement of what constitutes a negligible amount of termination material as construed in the claim term "negligibly over a top surface." (Pls.' Mot. 8-9.) Again, defendant appears to concede as much, but argues that Dr. Randall should

still be permitted to testify concerning the extent of the termination material on the top surface of the accused products, and the '547 Patent's discussion of termination material on the top surface and plaintiffs' related comments. (Def.'s Opp. 3.) Plaintiffs, however, point to paragraphs 226 and 241 to 244 of Dr. Randall's Rebuttal which reference plaintiffs' position that "0.05 mm termination width on the top of the device is the maximum amount" allowable, and note that "all or nearly all of the accused products have termination material on the top that is greater than 0.05 mm." (Pls.' Mot. 9.) Plaintiffs argue that extraneous limitations, such as a numerical limit, cannot be read into a claim, especially in light of the court's construction of the operative term "negligibly over a top surface." (*Id.* at 8 (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005)).)

The court rules that no expert may testify to measurable limitations of termination material on the top surface, as the court has declined to read a numerical limit into the term "negligibly over a top surface." Plaintiffs' motion is thus GRANTED. Defendant, however, through its expert, may describe the dimensions of the termination material extending on the top surface of the accused products. Accordingly, Dr. Randall may not testify that plaintiffs

promoted a maximum amount of termination material extending onto the top surface of 0.05 mm.

D. Substantially L-Shaped

Finally, regarding the court's previous claim construction, plaintiffs move the court to order that Dr. Randall may not opine on whether a particular termination is, or is not, substantially L-shaped. (*Id.* at 9-10.) This is consistent with the court's order denying Presidio's renewed motion for summary judgment and stating that this issue is reserved for the jury. (See Minute Order dated Dec. 20, 2018.) As the parties conceded at oral argument, no expert will offer an opinion that the accused products either are, or are not, "substantially L-shaped." (Tr. 8.)

However, defendant seeks to quote a particular prior art reference included in the '547 Patent, Galvagni, (ECF No. 153-1, Def.'s Opp., Ex. A, U.S. Patent No. 5,569,880 ("Galvagni")), which discloses "L-shaped" and "J-Shaped" terminations, (see Galvagni, at [57]). Plaintiffs do not move to prevent Dr. Randall from *quoting* the Galvagni reference, but seek to prevent Dr. Randall from opining that the terminations disclosed in the Galvagni reference are "substantially L-shaped" as claimed in the '547 Patent. (Pls.' Reply 3-4.) At oral argument, the parties agreed that Dr. Randall could quote from the Galvagni reference, (Tr. 11), but that he would not offer

the opinion that the Galvagni reference further discloses the “substantially L-shaped” terminations as claimed in the ‘547 Patent, (*id.* at 12), and that plaintiffs’ expert also would not offer testimony that a reference or product embodies the Galvagni reference’s particular limitation, (*id.* at 13). Thus, plaintiffs’ motion as to this point is GRANTED, and no expert may offer an opinion either that certain terminations are, or are not, “substantially L-shaped” or that the Galvagni reference discloses, or does not disclose, “substantially L-shaped” terminations.

II. Never-Produced Capacitors

Dr. Randall’s report discloses his opinions concerning Presidio’s non-infringing, alternative BB0201-size capacitors, PCI 170116-28 and PCI 170217-88. (ECF No. 152-5, Pls.’ Mot., Ex. 3, Randall Rebuttal ¶¶ 303-306, 317, 321, 345-347; ECF No. 152-7, Pls.’ Mot., Ex. 5.) Additionally, Mr. Thomas relies on Dr. Randall’s opinion regarding these capacitors in rendering an opinion on damages. (ECF No. 152-8, Pls.’ Mot., Ex. 6, Thomas Rebuttal ¶ 58, n.97.) Plaintiffs allege, and defendant does not dispute, that these capacitors were never produced. (Pls.’ Mot. 10.) Defendant argues the capacitors at issue were manufactured *after* fact discovery closed, and did not exist at the time plaintiffs’ expert prepared his report. (Def.’s Opp. 4-5.) Plaintiffs counter that these capacitors were at least in

production during fact discovery but were not disclosed until defendant's rebuttal report,³ and that defendant does not dispute that the capacitors were responsive to plaintiffs' discovery requests. (Pls.' Reply 4.) Plaintiffs argue defendant's continuing failure to produce the capacitors upon which defendant relies warrants preclusion of the capacitors, and of Dr. Randall's and Mr. Thomas's associated opinions, under Federal Rule of Civil Procedure 37 ("Rule 37"). (Pls.' Mot. 10-12.)

Though the parties did not brief or argue the relevant Second Circuit test for preclusion under Rule 37, *see Outley v. City of New York*, 837 F.2d 587, 590-91 (2d Cir. 1988), at oral argument defendant conceded that it would not offer evidence related to the unproduced capacitors, whether by Dr. Randall or Mr. Thomas. (Tr. 16.) Thus, the court GRANTS plaintiffs' motion to preclude defendant's experts from offering testimony related to the unproduced BB0201 capacitors, PCI 170116-28 and PCI 170217-88.

³ Presidio began manufacturing the PCI 170116-28 and PCI 170217-88 capacitors on January 16, 2017 and February 17, 2017, respectively. Presidio's witness testified that the first six digits of a Presidio lot number are formatted "YYMMDD" and correspond to the date a word order was created for that capacitor lot. (ECF No. 154-4, Pls.' Reply, Reply Ex. 3, Trinh Dep. 63:4-16.)

III. Judicial Admissions

Plaintiffs next move to preclude Dr. Randall from offering opinions contrary to Presidio's judicial admissions concerning the date when BB0502 capacitors sold by Presidio no longer included vias, electrically connected structures that are found in some capacitors,⁴ as claimed in the '791 Patent, and to preclude Mr. Thomas's opinion that infringement damages available to plaintiffs be reduced on this basis. (Pls.' Mot. 13.) Dr. Randall cites to certain manufacturing documents produced by Presidio during discovery to conclude that Presidio stopped manufacturing and selling BB0502 capacitors that included vias by October 31, 2014. (*Id.*; Randall Rebuttal ¶ 250.) Plaintiffs contend that Dr. Randall's conclusion contradicts defendant's previous admission that all Surface Mounted Buried Broadband capacitors in size 0502 sold by Presidio included one or more vias until "approximately June-July 2015." (ECF No. 152-11, Pls.' Mot., Ex. 9, Def.'s Resps. Pls.' 4th Reqs. Admis. 2; Pls.' Mot. 13-14.) Plaintiffs cite to Federal Rule of Civil Procedure 36(b) which provides that any "matter admitted . . . is conclusively established unless the court, on motion, permits the admission to be withdrawn or

⁴ *Via (electronics)*, Wikipedia, [https://en.wikipedia.org/wiki/Via_\(electronics\)](https://en.wikipedia.org/wiki/Via_(electronics)) (last visited May 29, 2019).

amended," and note that defendant has not so moved to withdraw or amend its relevant admissions. (Pls.' Mot. 14.)

Defendant responds that its admissions related to the *approximate* conclusion of its sale of capacitors with vias and that Dr. Randall's opinion is not contrary. (Def.'s Opp. 7.) Plaintiffs, however, point to a work order dated October 31, 2014, that appears to plan for production of via-less BB0502 capacitors continuing into June 2015. (Pls.' Reply 7; see ECF No. 154-6, Pls.' Reply, Reply Ex. 5, Work Order 141031.) Thus, plaintiffs argue, Presidio could not have sold BB0502 capacitors without vias before June 1, 2015, and point to defendant's considerable sales of BB0502 capacitors between October 31, 2014 and May 31, 2015 as proof of such sales. (Pls.' Reply 6; see also ECF No. 155-4, Pls.' Reply, Reply Ex. 4, Woods Rept. 69-75.) Plaintiffs further support their argument by relying on testimony from Presidio's General Manager for manufacturing explaining that Presidio lot numbers signify the date a work order for the product was created. (Trinh Dep. 11:2-8, 11:16-18, 63:4-16.)

Defendant's argument that "approximately June-July 2015" would encompass a date of October 31, 2014 is weak at best; this seven- to eight-month discrepancy is more than a half-year. Dr. Randall's opinion that Presidio sold its last BB0502 with vias on October 31, 2014, and Mr. Thomas's reliance

on this opinion, plainly contradicts Presidio's own documents and admissions. The admissions plaintiffs rely on, (ECF No. 152-11, Pls.' Mot., Ex. 9, Def.'s Resps. Pls.' 4th Reqs. Admis. 2-3), and the indicated sales of BB0502 capacitors support a conclusion that Presidio was still selling capacitors with vias until at least May 29, 2015.

Thus, defendant may not offer testimony that contradicts its discovery responses, specifically that plaintiffs' damages should be reduced as overstating the relevant damages period for BB0502 capacitors. (Ex. 6, Thomas Rebuttal ¶ 33.) Plaintiffs' motion as to this point is GRANTED.

IV. Other Litigations

Finally, plaintiffs move to preclude Mr. Thomas from offering opinion testimony relating to two previous lawsuits brought by Presidio against ATC in the Southern District of California. (Pls.' Mot. 17.) In both cases, plaintiffs' sale of certain capacitors was initially found to infringe Presidio's patent, U.S. Patent No. 6,816,356 (the '356 Patent). *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, No. 08-CV-0335 (S.D. Cal.) ("*Presidio I*"); *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, No. 14-CV-2061 (S.D. Cal.) ("*Presidio II*"). Presidio won an award of lost profits in both actions, along with an injunction of plaintiffs' sale of the accused capacitors—in *Presidio I*, plaintiffs' 545L capacitor, and in

Presidio II, plaintiffs' 550 capacitor.⁵ See *Presidio I*, ECF No. 367, Order Awarding Supp. Damages 2. In this case, plaintiffs argue in support of a lost profits damages theory that *Presidio's* allegedly infringing sales resulted in the loss of plaintiffs' sales of the 545L and 550 capacitors.

However, Mr. Thomas opines that plaintiffs' damages expert, Dr. Woods, erred by failing to account for the periods of time when plaintiffs' respective capacitors were unavailable due to the court-ordered injunctions in *Presidio I* and *II*. (Thomas Rebuttal ¶ 55.) He also opines that any additional sales of such capacitors by plaintiffs during the alleged infringement period would have triggered a lost profits payment to *Presidio* as a result of the lost profits awards in *Presidio I* and *II*. (*Id.* ¶ 96-98.) According to Mr. Thomas, such payment should accordingly reduce plaintiffs' lost profits damages, if any, awarded in this case. (*Id.*)

A. Injunctions in *Presidio I* & *II*

As an initial matter, plaintiffs argue that any reference to these other litigations, and their results, would be prejudicial and confusing to the jury under FRE 403. (Pls.'

⁵ Both parties appealed the judgment in *Presidio II*. *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, 875 F.3d 1369, 1373 (Fed. Cir. 2017). The Federal Circuit remanded for the district court to determine a reasonable royalty rate. *Id.* at 1384. The parties appeared to agree as to the value of a reasonable royalty for the 550 capacitors at \$0.25 per unit. Nevertheless, the judgment has been stayed as of April 8, 2019 pending appeal. See *id.*, No. 14-CV-2061, ECF No. 563, Order Granting ATC Mot. to Stay Judgment.

Mot. 19.) Second, plaintiffs argue that Mr. Thomas's opinion relies on an erroneous assumption that plaintiffs "could not have sold 545L capacitors from November 6, 2008 through November 30, 2009" because plaintiffs' 545L capacitors were found to have infringed defendant's '356 Patent and were the subject of an injunction. (*Id.* at 16; see Thomas Rebuttal ¶ 74.) According to plaintiffs, the *Presidio I* injunction was not in effect until August 2013. (Pls. Mot. 16.) Similarly, Mr. Thomas opines that plaintiffs could not have sold the 550 capacitors after December 8, 2015, as a result of the *Presidio II* injunction. (*Id.* at 17; see Thomas Rebuttal ¶ 75.) Plaintiffs, however, represent that the applicable injunction in *Presidio II* was not in force until March 17, 2017. (Pls.' Mot. 17 (citing *Presidio II*, No. 14-CV-2061, 2016 U.S. Dist. LEXIS 110212, at *63, *67 (S.D. Cal. Aug. 17, 2016)).) Thus, plaintiffs argue, Mr. Thomas erroneously discounts plaintiffs' lost profits based on his mistaken belief that plaintiffs' 545L and 550 capacitors were not available during the relevant damages periods in this case.

Defendant appears to concede that the 545L capacitor was not enjoined prior to September 2013. (Def.'s Opp. 13.) Likewise, for the 550 capacitors, defendant concedes that Mr. Thomas "will not render an opinion that the 550 capacitor was enjoined other than [from] March 17, 2017 through November 21, 2017, and after August 16, 2018." (*Id.* at 13-14.) Defendant

concludes that plaintiffs' request is moot in light of these concessions, but does not specify how Mr. Thomas's damages opinion will be altered. (*Id.*) At oral argument, defendant did not dispute that the infringement period at issue in this case did not overlap with the injunctions of the 545L and 550 capacitors. (Tr. 25, 29.) Thus, plaintiffs' motion to preclude Mr. Thomas's reference to the *Presidio I* and *II* injunctions is GRANTED, and Mr. Thomas may not offer his opinion as detailed in paragraphs 14, 55, 74, and 75 of his rebuttal report that the damages period for this case must consider the injunctions in *Presidio I* and *II*.

B. Damages Awards in *Presidio I* & *II*

Plaintiffs next move to preclude Mr. Thomas's opinion that any lost profits damages awarded to plaintiffs in this case must account for lost profit damages awarded to *Presidio* in the prior litigations because, plaintiffs argue, the judgments in *Presidio I* and *II* have been invalidated. First, plaintiffs contend, *Presidio* does not hold enforceable patent rights in the '356 Patent prior to December 8, 2015 and thus could not collect damages for any alleged infringement before that date due to the patent's reissue.⁶ (Pls.' Mot. 18.) Second, plaintiffs contend

⁶ It is undisputed that *Presidio's* rights in the '356 Patent, pursuant to court order in *Presidio II*, do not permit recovery of infringement damages prior to December 8, 2015. See *Presidio II*, No. 14-CV-2061, 2016 U.S. Dist. LEXIS 188729, at *43 (S.D. Cal. Feb. 10, 2016).

the Federal Circuit reversed Presidio's damages award in *Presidio II*. (*Id.* at 19 (citing *Presidio II*, 875 F.3d at 1381-82).) Third, plaintiffs argue that defendant's '356 Patent is currently subject to reexamination by the USPTO and that all of the patent claims at issue in the *Presidio I* and *II* cases stand rejected as invalid as of September 21, 2018. (See ECF No. 152-14, Pls.' Mot., Ex. 12, *Ex Parte* Reexamination Office Action.)

In response, Presidio argues that it did in fact collect lost profits damages from plaintiffs for infringing Presidio's '356 Patent through plaintiffs' sales of its 545L capacitor, including sales prior to December 8, 2015. (Def.'s Opp. 10 (citing Thomas Rebuttal ¶ 96).) As to plaintiffs' 550 capacitors, Presidio concedes that the per unit cost applied by Mr. Thomas is "currently undetermined" due to a pending appeal, but argues the parties at least agreed to a \$0.25 royalty for every 550 capacitor sold by plaintiffs. (*Id.* at 11.) Defendant supports this argument by relying on a joint motion filed on April 20, 2018 by the parties in *Presidio II*, in which the parties agreed to a reasonable royalty of \$0.25 per unit for plaintiffs' 550 capacitors that "were sold between December 8, 2015 and February 21, 2016." (ECF No. 153-7, Def.'s Opp., Ex. G, Jt. Mot. for J. 1.) Plaintiffs respond to this argument in a footnote, stating that the \$0.25 figure is "unsupported and incorrect." (Pls.' Reply 9 n.4.)

Discussion of these prior litigations between the parties would be plainly prejudicial and would seriously risk misleading the jury based on an infringement determination of an unrelated patent. See Fed. R. Evid. 403. Moreover, reference to the unrelated litigations offers very little if any probative weight to the material issues of this case. Defendant argues that it does not seek to introduce evidence of the prior litigations, "but rather only the *per unit costs* incurred by Plaintiffs" through their sale of 545L and 550 capacitors. (Def.'s Opp. 13 (emphasis added).) In any event, plaintiffs' 545L and 550 capacitors are not accused products in the instant action, and thus the court will not permit either party to offer evidence or attorney argument related to the parties' previous patent lawsuits. At oral argument the parties appeared to agree as much. (See, e.g., Tr. 27.) Evidence of the prior unrelated litigations, and the pending appeal of a judgment against plaintiffs, is not relevant for determining damages in this case. The court may permit defendant's expert to offer his opinion that a lost profits award should also account for an unspecified per capacitor cost of the capacitors at issue here, but only if the testimony otherwise complies with the Federal Rules of Evidence, which the court now turns to.

As discussed above, Mr. Thomas's opinion is offered to rebut the lost profits testimony of plaintiffs' damages expert

Dr. Woods. (Def.'s Opp. 6.) Plaintiffs attack Mr. Thomas's opinion as unreliable because it is based upon inoperative judgments, (Pls.' Mot. 17), and further argue that Mr. Thomas should have considered the intervening judgment in *Presidio II* which cut off Presidio's patent rights in the '356 Patent prior to December 2015, (Tr. 43). Further, plaintiffs argue that Presidio failed to cite any authority that supports Mr. Thomas's opinion that a damages award in this case should be reduced to comport with a damages award in an unrelated lawsuit. (Pls.' Mot. 19.)

An award of lost profits aims to put the patentee in the same position it would have been but for the infringement. *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1284 (Fed. Cir. 2017), *cert. dismissed*, 139 S. Ct. 44 (2018). As the Supreme Court has explained, the "but for" damages the patentee must prove are an answer to a simply stated question: "[H]ad the Infringer not infringed, what would the Patent Holder-Licensee have made?" *Id.* (citing *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507 (1964)).

To show "but for" causation, the patentee must reconstruct the market to determine what profits the patentee would have made had the market developed absent the infringing product. *Grain Processing Corp. v. Am. Maize-Prods. Co.*, 185 F.3d 1341, 1350 (Fed. Cir. 1999). A patentee may do this

through the four-factor *Panduit* test requiring proof of: (1) demand for the patented product; (2) lack of acceptable non-infringing substitutes; (3) capacity by the patentee to meet the demand; and (4) the amount of profit the patentee would have made. *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156 (6th Cir. 1978); *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229, 1243 (Fed. Cir. 2017). “The burden then shifts to the infringer to show that the inference is unreasonable for some or all of the lost sales.” *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1545 (Fed. Cir. 1995); see also *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1267 (Fed. Cir. 2013). Once a patentee shows causation, however, the trial court may resolve doubts underlying the precise measurement of damages against the infringer. *Minco, Inc. v. Combustion Eng’g, Inc.*, 95 F.3d 1109, 1118 (Fed. Cir. 1996) (citing *Lam, Inc. v. Johns-Manville Corp.*, 718 F.2d 1056, 1065 (Fed. Cir. 1983)).

A patentee’s “but for” market reconstruction must be supported by “sound economic proof of the nature of the market and likely outcomes with infringement factored out of the economic picture.” *Ericsson, Inc. v. Harris Corp.*, 352 F.3d 1369, 1377 (Fed. Cir. 2003) (citing *Grain Processing*, 185 F.3d at 1350). Although the hypothetical, “but for” world must be supported with sound economic proof, the Federal Circuit “has

affirmed lost profit awards based on a wide variety of reconstruction theories.” *Crystal Semiconductor Corp. v. TriTech Microelectronics Int’l, Inc.*, 246 F.3d 1336, 1355 (Fed. Cir. 2001); see also *Versata Software*, 717 F.3d at 1265. The court explained in *Grain Processing* that sound economic proof is required “to prevent the hypothetical from lapsing into pure speculation.” 185 F.3d at 1350. As to the fourth *Panduit* factor, the amount of profit a patentee would have made, awarding incremental profit reflecting a percentage of sales revenue that the patentee would have realized as profit “is well established and appropriate for determining damages for patent infringement.” *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1580 (Fed. Cir. 1989).

Although the incremental profit approach may be suitable here, there is no directed formula the court is aware of, and experts appear to take various approaches to calculating profits. For example, in *Georgetown Rail Equip. Co. v. Holland L.P.*, 867 F.3d 1229 (Fed. Cir. 2017), the Federal Circuit affirmed the jury’s award of lost profits based on the plaintiff’s damages expert’s calculation. 867 F.3d at 1242. The court found that the calculations were based on “sound economic proof confirmed by the historical record,” where the expert deducted “job costs, capital expenditures, and deductions for net-present value” from revenue to arrive at lost profits.

Id.; see also *Versata Software*, 717 F.3d at 1266-67 (“The expert also discounted his sales value calculations to account for the costs associated with making those sales. He accounted for ‘the direct costs of making those sales, plus costs associated with research and development efforts, plus costs associated with . . . selling, general and administrative expenses.’”).

Similarly, in *Stryker Corp. v. Intermedics Orthopedics, Inc.*, 891 F. Supp. 751, 825-26 (E.D.N.Y. 1995), the district court evaluated the parties’ competing experts’ respective lost profits calculations. 891 F. Supp. at 826-828. In determining damages after a bench trial, the court weighed the parties’ lost profits evidence, offered by their competing experts. The experts’ respective calculations differed on several grounds including, and applicable here, the deduction of certain variable costs from lost sales, in particular those arising from marketing, sales, general administration, and research and development. *Id.* at 826-27. The court in *Stryker* ultimately found the plaintiff’s expert calculations more reliable because they were derived from a line-by-line review of profit and loss statements instead of defendant’s more speculative regression analysis. *Id.* at 828.

Although neither of these cases dealt with an evidentiary challenge under *Daubert*, the methods used by the experts in these cases were accepted as reliable and accurate to

prove lost profits. This is helpful in illustrating the standard for evaluating an expert's lost profits opinion. Assuming, for the sake of argument, Dr. Woods' testimony establishes plaintiffs' *prima facie* lost profits case, the court considers whether Mr. Thomas's opinion is based on sound economic principles such that it is relevant to the task at hand of calculating lost profits, and thus admissible under *Daubert* and FRE 702.

Mr. Thomas and defendant characterize the damages award in *Presidio I* as a per unit cost. (Def.'s Opp. 10; Tr. 34.) Under defendant's theory, but for *Presidio's* infringement, ATC would have sold more 545L capacitors and, in turn, would have been exposed to a higher damages award in *Presidio I*. (Thomas Rebuttal ¶ 96.) Mr. Thomas, however, does not establish why this characterization, and subsequent impact on profits, comports with sound economic principles, and defendant bears this burden as the proponent of the opinion testimony.

First, the \$1.34 proffered by defendant is not a cost of *production* incurred by ATC for plaintiffs' 545L capacitors but an expense associated with a court order. The district court in *Presidio I* calculated the \$1.34 figure to award supplemental damages to *Presidio* for post-infringement sales of a certain number of ATC's 545L capacitors. *Presidio I*, Order

Awarding Supp. Damages 2. The court divided the lost profits originally awarded by the jury by the number of plaintiffs' infringing capacitors sold during the relevant period and arrived at \$1.34 in damages per capacitor. *Id.*

Second, Presidio has not demonstrated that sound economic principles support subtracting a later-in-time judgment from plaintiffs' previously earned revenues to arrive at profits. The rationale supporting Mr. Thomas's factoring the damages award of \$1.34 per capacitor in *Presidio I* into determining the amount of lost profits could, by extension, support a deduction of ATC's other legal costs, such as fees associated with the *Presidio I* litigation, or a higher tax penalty it might have incurred for realizing higher profits. The court finds such an approach is inconsistent with sound economic principles, and, in any event, Presidio has not demonstrated otherwise. Had ATC actually licensed defendant's '356 Patent for its production of 545L capacitors, it would be reasonable to accept accounting for that license in a lost profits determination here. However, simply construing the lost profits award as a "per unit cost" as Presidio attempts, does not convert ATC's one-time legal liability into a manufacturing cost.

Thus, Mr. Thomas's opinion that any lost profits awarded to plaintiffs for lost sales of plaintiffs' 545L

capacitor should be reduced because they would have paid a commensurate damages amount is speculative and unreliable. It assumes an amount the jury would have arrived at or that all the sales would have been found infringing and this court is not in a position to consider what a jury would have done in *Presidio I* but for defendant's alleged infringement in this case.

Moreover, the court agrees with plaintiffs' argument that an offset to an award of lost profits damages in this case would, in effect, comprise a supplemental award of damages for defendant's '356 Patent, a patent for which *Presidio* is no longer entitled to collect damages for the relevant period. This basis alone is reason enough to preclude Mr. Thomas from offering an opinion that would permit the jury to reduce an award of lost profits due to an inoperative prior judgment. For these reasons, Mr. Thomas is precluded from offering at trial his opinion that a lost profits award in this case should consider the damages awards in *Presidio I*.

As to the effect of the pending appeal of the judgment in *Presidio II* the court will address any required offset in post-trial motions to the extent the parties' awards are offsetting. The court, however, precludes expert testimony concerning the *Presidio II* award, whether for lost profits or a royalty rate the parties agreed to, for the reasons discussed above, as unreliable because the defendant's judgment is pending

appeal, and because defendant's '356 Patent is likewise pending reexamination. Thus, plaintiffs' motion to preclude Mr. Thomas from offering an opinion as to the impact of the damages awards in *Presidio I* and *II* is GRANTED.

DEFENDANT'S MOTIONS

I. Dr. Craig Hillman

Defendant moves to preclude the expert testimony of plaintiffs' technical expert, Dr. Hillman, whose offered opinion relates to Presidio's infringement of the '791 and '547 Patents. (Hillman Rept. 7-9.) He analyzed Presidio's BB and SL capacitors in several case sizes. (*Id.* at 7.) Dr. Hillman also reviewed photographs and documents related to certain capacitor lots produced by Presidio for inspection.⁷ (*Id.* at 15 n.4; Ex. 88.)

⁷ The parties disputed whether these capacitors were technically "produced," and whether Dr. Hillman's review of the photographs and documents constituted "analysis" sufficient to support an infringement opinion. (Hillman Reply 2.) The court granted the parties leave to brief surreplies on this issue. (See ECF No. 163, Def.'s Surreply; ECF No. 164, Pls.' Surreply.) At oral argument, plaintiffs explained that the visually inspected capacitors were in Presidio's inventory in something called the "dead bin." (Tr. 80.) These capacitors were manufactured but never sold. Plaintiffs' counsel inspected these lots of accused capacitors and photographed the capacitors and associated manufacturing documents for Dr. Hillman's review. (See ECF No. 146, Hillman Opp. 8-9; ECF No. 147-1, 147-2, Exs. A-1, A-2, Photographs.) Dr. Hillman relied on these documents in concluding that the capacitors infringed for the same reasons as the other capacitors he analyzed. (Hillman Rept. 15 n.4.) This dispute, as to whether the capacitors were technically produced and whether Dr. Hillman analyzed "every 'lot' or batch of multilayer capacitors produced by Presidio," (Hillman Opp. 1), is immaterial to the courts' analysis of defendant's arguments under *Daubert*. However, it certainly illustrates that the parties will endlessly dispute issues that should be resolved without court intervention.

Presidio challenges Dr. Hillman's opinions as based on insufficient data and unreliable methods under *Daubert* and FRE 702. (ECF No. 145-1, Hillman Mot. 1-2.) As to its first theory, Presidio argues Dr. Hillman evaluated a minimal and insufficient number of capacitors, no more than 100 total, given the millions of accused capacitors in this case. (*Id.* at 5-6.) Presidio further argues that, without asserting or explaining why these capacitors are representative of the millions of accused capacitors, Dr. Hillman cannot reliably demonstrate that the sample capacitors he analyzed are statistically sufficient to establish infringement as to all of the accused products. (ECF No. 147, Hillman Reply 1-2.) As to his methods, Presidio argues that Dr. Hillman took no measurements of the capacitors he actually analyzed and thus cannot render a reliable infringement opinion. (Hillman Mot. 10-11.)

A. Insufficient Data

Presidio contends that plaintiffs have not demonstrated that each capacitor within a given lot is sufficiently similar to all other capacitors within the same lot; that Presidio repeatedly demonstrated during discovery that "each capacitor is different;" and that Dr. Hillman failed to mention how this unsupported similarity affected his opinion and permitted him to extrapolate his analysis to all accused capacitors. (*Id.* at 6; Hillman Reply 3.)

Presidio argues that the 23 BB capacitors Dr. Hillman analyzed out of the 14.6 million accused products, and the seven SL capacitors Dr. Hillman analyzed out of the 204,000 accused products, are fatally insufficient to support his conclusion of infringement. (Hillman Mot. 4-5.) According to Presidio, Dr. Hillman's analysis amounts to only 0.00015% of the accused BB capacitors and 0.0034% of the accused SL capacitors. (*Id.* at 6.) Defendant relies on two non-binding cases for the principle that this minimal percentage warrants preclusion. (*Id.* at 7-8.)

First, Presidio relies on a Western District of Tennessee case, *WCM Industries v. IPS Corp.*, No. 13-CV-2019, 2015 U.S. Dist. LEXIS 135201 (W.D. Tenn. Oct. 5, 2015), to support its insufficient data theory. (See, e.g., Hillman Mot. 7, 9, 15-16.) However, the court there offered very little express reasoning to develop the rule Presidio would have this court apply. The *WCM Industries* court reached and explained its decision concerning the challenged expert testimony in a single paragraph. See *WCM Indus.*, 2015 U.S. Dist. LEXIS 135201, at *31-32. The court reasoned that, because the measurements at issue to the infringement analysis required precision to the thousandths of an inch, the expert's analysis of one sample each for three models out of hundreds of accused products provided an insufficient basis for the expert's conclusions. *Id.* Without further explanation, the court also based its decision to

exclude on the expert's failure to complete an "error analysis."
Id.

Plaintiffs counter Presidio's reliance on *WCM Industries* by highlighting the sparse discussion by the district court. (Hillman Opp. 15.) Additionally, plaintiffs' excerpt as Exhibit 13 the plaintiff's final infringement contentions in *WCM Industries* to demonstrate that the plaintiff in that case had accused hundreds of products without providing any analysis of relevant similarities or differences. (*Id.* at 15 n.10 (citing ECF No. 146-16, Hillman Opp., Ex. 13, *WCM Industries' Final Infringement Contentions, WCM Indus. v. IPS Corp.*, No. 13-CV-2019 (W.D. Tenn. Jan. 23, 2015)).)

Presidio next relies on *Mugworld, Inc. v. G.G. Marck & Assocs.*, No. 05-CV-441, 2007 U.S. Dist. LEXIS 62223 (E.D. Tex. Aug. 23, 2007). There, the plaintiff's expert evaluated 600 mugs out of a returned shipment of 150,000 allegedly defective mugs, amounting to less than half of one percent of the at-issue products. 2007 U.S. Dist. LEXIS 62223, at *11. On this basis, the expert concluded that the entire shipment was likely not commercially acceptable. *Id.* The court found that a sample of this size, however, was insufficient to be reliably representative of the entire shipment and thus excluded the expert's opinion. *Id.*

Presidio further supports its argument by pointing to certain discovery responses it made describing the differences between the accused capacitors' case sizes. (Hillman Mot. 6 (citing ECF No. 145-6, Hillman Mot., Ex. E, Def.'s Eighth Supp. Resps. Pls.' 1st Interrogs. 9-20; ECF No. 145-7, Hillman Mot., Ex. F, Def.'s Resps. Pls.' 2d Interrogs. 3-5).) According to Presidio these responses demonstrate that the way a capacitor's terminations "look," even for the same case size, varies by capacitor. (*Id.* at 7.) Presidio also cites to Exhibit G, an annotated picture of several capacitor cross-sections, depicting various terminations and other relevant structures of the accused products. (ECF No. 145-8, Ex. G, Items 4-14.) The face of the Exhibit, however, does not make clear if the depicted Presidio capacitors are of the same lot or even case size. Presidio also cites to Exhibit H, Presidio manufacturing documents that include the recorded dimensions of a sample of capacitors from several capacitor lots, to argue that within a given lot, capacitor termination portions can vary up to 75%. (See generally ECF No. 145-9, Ex. H, Presidio Manufacturing Documents.)

Finally, Presidio argues that Dr. Hillman did not establish or even assert that the sample of capacitors he analyzed is somehow typical of the capacitors he did not analyze. (Hillman Mot. 9; Hillman Reply 3.) Presidio relies on

L&W, Inc. v. Shertech, Inc., 471 F.3d 1311, 1318 (Fed. Cir. 2006), where the patentee's expert asserted that his analysis of one of the accused products was "typical" of sixteen accused products, and the patentee treated this analysis as applicable to all of the accused products. *L&W*, 471 F.3d at 1316. The Federal Circuit, however, reversed a grant of summary judgment of infringement because the patentee accused sixteen different heat shields of infringement but its expert only tested a single accused product without identifying why his analysis pertained to all the accused products. *Id.* at 1317. The court found there was no evidence to support the expert's infringement conclusion, based on a single inspection, because the expert's report contained no indication of *which* features of the products he analyzed he regarded as "typical." *Id.* The court concluded that the defendant could not "simply 'assume' that all of [the accused] products are like the one [the expert] tested and thereby shift . . . the burden to show that is not the case." *Id.*

Plaintiffs contend that Dr. Hillman analyzed every lot produced by Presidio, in each case size of the BB capacitors and all but one case size of the SL capacitors, and further that Presidio understated the number of capacitors analyzed by Dr.

Hillman.⁸ (Hillman Opp. 4.) Plaintiffs argue that Dr. Hillman in fact analyzed two capacitors for each lot, as opposed to the one capacitor alleged by Presidio, as evidenced by the cross-section views of both the side and end of a capacitor in a given lot. (*Id.*; see also Summ. J. Order 54-55 (noting that “with respect to each exhibit [in Hillman’s Expert Report], the side view and the end view depict different capacitor units).)

Plaintiffs further contend that Dr. Hillman was permitted to rely on his analysis of a limited number of Presidio capacitors because Presidio represented that it had produced “representative” samples, and refused to produce more. (Hillman Opp. 13 (citing ECF No. 146-13, Hillman Opp., Ex. 10, Def.’s Resps. Reqs. Produc. Nos. 14, 15; ECF No. 146-14, Hillman Opp., Ex. 11, Def.’s Resps. Reqs. Produc. Nos. 99, 100, 118, 119).) Plaintiffs also argue that Presidio’s multilayer capacitors are formed in large lots and that each capacitor is the same by design. (*Id.* at 17.) Moreover, plaintiffs argue, Presidio admitted it would not argue non-infringement of the

⁸ Plaintiffs note that Presidio failed to produce any SL capacitors in case size 2244. (Hillman Opp. 4.) Plaintiffs accordingly relied on Presidio’s discovery admissions that the SL capacitors actually produced by Presidio were representative in relevant respects to the unproduced 2244 capacitors. (Hillman Rept. ¶¶ 30 n.6, 51 n.10, 63 and 86; see also ECF No. 146-6, Hillman Opp., Ex. 3, Def.’s Resps. Reqs. Admis. Nos. 142, 175; ECF No. 146-7, Hillman Opp., Ex. 4, Def.’s Resps. Reqs. Admis. No. 280 (admitting that the one or more vias present in SL capacitors that Presidio produced and Dr. Hillman analyzed are representative of the via(s) present in the SL 2244 capacitors).) The court has already precluded defendant from offering testimony and evidence regarding capacitors that were not produced.

patents-in-suit on the basis of any alleged differences in size amongst the accused products. (*Id.* (citing Def.'s Resps. Reqs. Admis. Nos. 135, 142, 171-175).)

In response to Presidio's reliance on *WCM Industries*, plaintiffs cite to *TiVo, Inc. v. Echostar Commc'ns Corp.*, 516 F.3d 1290 (Fed. Cir. 2008), for the proposition that an expert is entitled to apply analysis done on a single model to other accused products. (Hillman Opp. 13.) The plaintiff's expert in *TiVo* "testified in detail with respect to only one type of device," but the court found such testimony was proper when the "expert testif[ies] in detail about a particular device," and further "stat[es] that the same analysis applies to other allegedly infringing devices that operate similarly, without discussing each type of device in detail." *TiVo*, 516 F.3d at 1308.

Plaintiffs also rely on a Southern District of New York case, *Louis Vuitton Malletier S.A. v. Sunny Merch. Corp.*, 97 F. Supp. 3d 485, 508-10 (S.D.N.Y. 2015), where the district court denied a *Daubert* motion predicated on an insufficient sample size. (Hillman Opp. 14.) Presidio argues *Louis Vuitton* is inapposite because it is a trademark case. (Hillman Reply 8 n.1.) Nevertheless, the dispute there concerned the number of samples required to support an expert's conclusion. *Louis Vuitton*, 97 F. Supp. 3d at 509. The court declined to exclude

the report on the basis of insufficient sample size and concluded that a dispute over "small sample size goes to the weight, rather than to the reliability (and admissibility) of a study." *Id.* at 509-10 (citing *U.S. Info. Sys. Inc. v. Int'l Bhd. of Elec. Workers Local Union No. 3*, 313 F. Supp. 2d 213, 232 (S.D.N.Y. 2004)); see also *Bryant v. Milhorat*, No. 09-CV-1751, 2013 WL 12368616, at *10 (E.D.N.Y. Sept. 30, 2013).

Plaintiffs next distinguish *Mugworld*, arguing that the expert's opinion there warranted exclusion because it included no explanation of how the expert chose the 600 mugs he analyzed, whether and how the mugs were the same or different, how the sample mugs were made, or how he reached his apparent conclusion that the nature of the defects in the remaining mugs would be the same. *Mugworld*, 2007 U.S. Dist. LEXIS 62223, at *8-9. Plaintiffs also note that *Mugworld* involved defective products, "which, by definition, contain anomalies and unexpected characteristics." (Hillman Opp. 16.)

Plaintiffs further respond that both Presidio and its own expert lend support to the reliability of Dr. Hillman's opinions. (*Id.* at 18.) Dr. Randall, Presidio's expert, repeatedly formed opinions of the accused products based on a limited sample he deemed "representative," and not by analyzing every capacitor in each lot. (*Id.* (citing ECF No. 146-11, Hillman Opp., Ex. 8, Randall Rebuttal ¶ 243).) Plaintiffs also

note that “Dr. Randall has acknowledged multilayer capacitors are ‘reliably conventionally fabricated in huge arrays (typically many thousands of capacitors)’ and each capacitor, by design, is the same.” (*Id.* at 19; ECF No. 146-17, Hillman Opp., Ex. 14, Randall Rept. ¶ 325; see also *id.* ¶ 189; ECF No. 146-18, Hillman Opp., Ex. 15, Randall Dep. 68:2-7 (acknowledging that if multilayer capacitors are manufactured properly “all of their dielectric layers will be coextensive in length and width”).)

In further support of Dr. Hillman’s opinion, plaintiffs argue Presidio’s manufacturing documents confirm that it tests samples of ten capacitors in a given production lot bases its quality control conclusions as to the entire lot on this minimal sample. (Hillman Opp. 18; Ex. H, Presidio Manufacturing Documents.) Plaintiffs also cite Presidio’s product catalogs that specify characteristics for produced capacitors by case size and not for each lot or capacitor produced. (Hillman Opp. 19.)

Plaintiffs also point to Presidio’s arguments raised in *Presidio II*, No. 14-cv-2061, 2016 WL 7319524 (S.D. Cal. Jan. 12, 2016. (*Id.*) There, Presidio argued, and the court agreed, that its expert’s analysis of only a few samples of multilayer capacitors—in a single case size—was sufficient for a jury to determine that millions of other capacitors infringed the patent, including multiple other case sizes not analyzed.

Presidio II, 2016 WL 7319524, at *3-4. The district court concluded that the dispute over sample size did not warrant exclusion but rather went to the weight the fact-finder should afford the evidence. *Id.* Defendant responded at oral argument to this point that plaintiffs conceded in *Presidio II* through discovery responses that the accused products were all the same, thus supporting *Presidio's* expert's opinion in that case. (Tr. 55.)

Presidio has not cited controlling authority for the proposition that a small sample size warrants exclusion by law, and offers no rule to determine what sample size would be sufficient or insufficient for the case at bar. Indeed, *Presidio* overstates its cited authority by declaring "directly relevant case law" holds that preclusion is warranted. (Hillman Reply 2.) The court has not found a controlling case that warrants preclusion based on the sample size Dr. Hillman relied on to reach his conclusions. See *U.S. Info. Sys.*, 313 F. Supp. 2d at 232 ("As long as a sample is representative—that is, it was not selected in a biased manner—sample size will not skew the results of the analysis.").

Nevertheless, *Presidio* argues that each capacitor within a given lot is so different that an analysis of one or two cannot form the basis of an opinion as to the remainder of the lot. (Tr. 53; Hillman Mot. 6, 7.) First, this argument

would practically require Dr. Hillman to analyze all of the more than 14.6 million accused capacitors to provide an admissible opinion.⁹ Moreover, Presidio's contention that it said as much in discovery is hollow. Presidio attempts to construe plaintiffs' relevant discovery requests as seeking documents concerning "*why each and every capacitor is different,*" and construes its own responses as affirmatively answering these requests. (Hillman Reply 4 (citing Ex. F, Resp. to Interrog. No. 15 (incorporating Ex. E, Resp. to Interrog. No. 5)).) Presidio's counsel continued this unpersuasive line of attack at oral argument. (See, e.g., Tr. 67.) But, plaintiffs' requests, and defendant's responses, are fairly read as distinguishing amongst the "models and versions" of the BB and SL capacitors as different, such that an infringement contention as to one cannot be extended to the other "models or version," *i.e.*, case sizes. (See Ex. F, Resp. to Interrog. No. 15 ("Case size 0402 of Presidio's Surface Mount Buried Broadband capacitors are different than other case sizes of Presidio's Surface Mount buried Broadband capacitors because they are large in size, including length and width.")) Defendant's responses may also fairly be read as general denials of plaintiffs' infringement

⁹ To this point, plaintiffs at oral argument pointed out that many of the 14.6 million accused capacitors were in fact sold by defendant and were thus no longer under its control; in order to analyze them, Dr. Hillman would have to look to Presidio's customers' products with the installed capacitors. (Tr. 83.)

allegations, relating to the structure of the accused products by case size, and not relying or even referencing manufacturing tolerances and variations. (See Ex. E, Resp. to Interrog. No. 5 (“Presidio’s Surface Mount Buried Broadband capacitors . . . have U-shaped terminations, are 5 sided, . . . and have terminations that extend around the lateral sides, and therefore do not meet the limitations of ‘substantially L-shaped terminations,’ as found in the ‘547 patent. . . . [The accused capacitors] have top and bottom terminations that extend from the end face the same amount, and therefore the top configuration is not smaller than the bottom configuration. *For this reason*, the top termination does not extend ‘negligibly,’ and therefore . . . [the accused capacitors] do not meet the limitation of ‘substantially L-shaped terminations’ or the limitation of ‘negligibly over a top surface’ as found in the ‘547 patent.” (emphasis added)).)

Furthermore, plaintiffs’ Request for Production No. 116 asks for “Documents sufficient to show all the differences between sample Buried Broadband Capacitors in 0502, 0302, 0603, and 0805 sizes already produced by Presidio . . . and other Buried Broadband Capacitors in 0502, 0302, 0603, and 0805 sizes, including documents on which Presidio relies to argue non-infringement in this action.” (ECF No. 147-3, Hillman Reply, Reply Ex. B, Def.’s Resps. Pls.’ 2d Reqs. Produc. 14.) Presidio

responded to this request that “[r]esponsive documents have been or will be produced.” (*Id.*) To plaintiffs’ Request No. 118, Presidio responded that “[r]epresentative samples of capacitors and documents showing differences between Buried Broadband Capacitors in 0201, 0402, 0502, 0302, 0603, and 0805 sizes have been produced.” (*Id.* at 16.) These requests, and Presidio’s responses, are inarguably directed at differences between the case sizes, not whether capacitors in a given case size or lot are so variable as to form the basis for a non-infringement argument if a capacitor in one case size is found to infringe.

Even more glaring is defendant’s response to plaintiffs’ first set of requests for production. In response to plaintiffs’ request for ten samples of BB and SL capacitors in each relevant case size, Presidio stated “representative samples of Presidio’s Surface Mount Buried Broadband capacitors” and “Single Layer capacitors” had been produced. (ECF No. 146-13, Hillman Opp., Ex. 10, Def.’s Resps. Pls.’ Reqs. Produc. 9-10.) At oral argument, counsel for defendant stated “representative samples” meant, in fact, “nothing,” but was hard-pressed to explain this anomaly. (Tr. 72-73.) As such, Presidio has not established that its manufacturing process is so variable that each capacitor in a given lot is materially different from the rest of the capacitors in the lot and,

furthermore, that plaintiffs were aware of this variability based on defendant's discovery responses.

Thus, Presidio has not demonstrated that Dr. Hillman's decision to extrapolate his analysis from one capacitor to an entire lot was unreliable. Defendant's argument that Dr. Hillman did not explain his basis for extrapolating his analysis of a sample of capacitors to all the accused products is likewise belied by the record. Indeed, Dr. Hillman based his decision on Presidio's documents, representations, and discovery responses, and explained that his infringement opinion applied to all the accused products on this basis. (See Hillman Rept. 15 n.4 ("In addition, I have reviewed Presidio's discovery responses, namely its Response to Plaintiff's [sic] Interrogatory No. 15 and its Responses to Plaintiffs' [sic] Request for Production Nos. 14, 15, 99 and 100 and I understand, in light of these responses, that for all material purposes with respect to the infringement inquiry the BB and SL capacitors for which micrographs have been generated and destructive physical analysis has been performed are indicative of all of the accused BB and SL capacitors, respectively.")) Contrary to Presidio's assertions at oral argument, Dr. Hillman relied on defendant's discovery responses in his analysis of each relevant claim term, including "negligibly on a top surface." (See, e.g., *id.* at 21 ("[E]very limitation of claim 12 of the '547 Patent is found in

all BB capacitors . . . for generally the same reasons discussed above with respect to my evaluation of claims 1, 3, and 4.”), 22 (“ “[T]erminations extending over a bottom surface of said device body and negligibly on a top surface of said body’ is found in all BB capacitors in case size 0201 as shown in the micrographs and for the reasons discussed in paragraphs 40 and 41.”).) Dr. Hillman finds further support for his opinion by citing to deposition testimony that each BB capacitor made by Presidio “include[s] both dipped end terminations and surface pads,” relying on Presidio’s employees’ representations of its manufacturing process. (*Id.* ¶ 41.) In arguing that Dr. Hillman’s opinion is deficient because he failed to assert or explain that the capacitors he examined are representative, Presidio appears to ignore that Presidio itself made such an assertion, and this assertion supports admission of Dr. Hillman’s opinion. (See Hillman Mot. 9; Tr. 62.) Dr. Hillman was entitled to rely on Presidio’s own representations regarding the accused products. See Fed. R. Evid. 703.

Presidio similarly faults Dr. Hillman’s reliance on its discovery responses for his conclusion that the capacitors produced for inspection infringed for the same reasons as the capacitors he physically analyzed. (Hillman Mot. 8.) However, Dr. Hillman’s report explains that the capacitors he *inspected* infringe for the same reasons as the capacitors he *analyzed*, in

each corresponding case size. (Hillman Rept. 15 n.4 ("I have also visually inspected 29 other lots of BB capacitors and 5 other lots of SL capacitors, which I understand that Presidio recently produced after the Presidio depositions took place and near the close of fact discovery. Based on my review, these new BB capacitors and SL capacitors . . . include 'substantially L-shaped terminations' for the same reasons as I have set forth above with respect to the BB capacitors I have analyzed, and as set forth below with respect to the SL capacitors I have analyzed." (citations omitted)).)

Presidio also alleges that Dr. Hillman ignored its produced manufacturing documents which demonstrate that, within "the same capacitor lots, capacitors have termination portions that vary 75%." (Hillman Reply 4 (citing Ex. H, Presidio Manufacturing Documents).) However, this is contradicted by Dr. Hillman's report which clearly indicates he reviewed documents bearing Bates numbers corresponding with defendant's Exhibit H, that is, NYP-000826, NYP-000831, and NYP-000832. (Hillman Rept. 6.) Presidio also attempts to distinguish Dr. Hillman's representation that he *reviewed* these documents from actually *analyzing* and expressly considering their impact on his opinion. (Hillman Reply 4.) Had Dr. Hillman done so, Presidio argues, he would have necessarily concluded that all the accused capacitors are different from each other, as Presidio claims it repeatedly

explained to plaintiffs. (*Id.*) As discussed above, a review of Presidio's discovery responses does not support this claim.

Defendant also relies on a clearly distinguishable case, *WCM Industries*, that is not binding on this court. Dr. Hillman did not base his opinion as to all the accused products on an analysis of only some of the models of accused products, as the expert did in *WCM Industries*. Here, Dr. Hillman analyzed capacitors in each case size produced by Presidio, and extended his opinion to the various iterations of the same model and version of the capacitor. Moreover, the expert's analysis in *WCM Industries* appears to have relied on measurements to the thousandths of an inch, which is not an issue in this case.¹⁰ *Mugworld* is similarly distinguishable because it dealt with defective production such that the products at issue were not consistently produced. *Mugworld*, 2007 U.S. Dist. LEXIS 62223, at *9. As for *L&W*, plaintiffs' responsive citation to *TiVo* is helpful. In *TiVo*, the Federal Circuit found "nothing improper" when the expert applied his analysis of a single device to the other infringing devices that operated similarly without discussing each type of device in detail. *TiVo*, 516 F.3d at 1308. The expert testimony here does not suffer from the

¹⁰ Presidio also notes that the opinion in *WCM Industries* was excluded for failure to include an "error analysis" but neither it nor the court in *WCM Industries* explained that deficiency. (Hillman Mot. 8.) This alleged fault, which Presidio did not apply to the facts of this case, likewise does not provide a basis to preclude Dr. Hillman's opinion testimony.

analytical deficiencies asserted in *TiVo*. Dr. Hillman analyzed each type of device, the various case sizes and types of the accused capacitors, and extended his analysis to all the accused capacitors of the same type for the reasons stated in his opinion. There is nothing improper to this approach.

As to Dr. Hillman's analysis of the '791 Patent, Presidio similarly argues that his opinion is based on insufficient data because he only analyzed seven capacitors out of the more than 200,000 accused. (Hillman Mot. 5.) Presidio reiterates its contention discussed above that its discovery responses made clear that "each model and version of the BB capacitors and SL capacitors are different and that they do not infringe for different reasons." (*Id.* at 16.) But, as with the '547 Patent, the court finds that Presidio's discovery responses do not establish, much less disclose, such disparity among the accused products, and that Dr. Hillman sufficiently explained and relied on Presidio's discovery responses in reaching his infringement conclusion. Dr. Hillman's opinion as to either of the patents-in-suit, therefore, does not warrant preclusion for insufficient sample size.

The court finds that plaintiffs have demonstrated that Dr. Hillman based his opinion on a sufficient sample size for purposes of *Daubert* and that he properly relied on Presidio's representations, discovery responses, and produced documents to

render an infringement opinion as to all the accused products. Presidio's discovery responses entitled Dr. Hillman to rely on the representative nature of the produced capacitors. Presidio's contention that Dr. Hillman failed to analyze the capacitors produced for inspection similarly fails in the face of its discovery responses.

B. Unreliable Method

Presidio's second theory for exclusion under *Daubert* is that Dr. Hillman used unreliable methods to analyze the capacitors because he did not take any measurements of the respective structure's dimensions, which, defendant argues, he should have done to prove infringement of the patents-in-suit. (Hillman Mot. 9.) As to the '791 Patent, defendant argues Hillman's taking of a cross-section a single point likewise cannot demonstrate that two dielectric layers are co-extensive. (*Id.* at 17-18.)

1. '547 Patent

Presidio argues that the '547 Patent "explains what constitutes a 'negligible' amount in terms of a fraction of a millimeter," (*id.*), and that Dr. Hillman explained during his deposition that this means the termination on a top surface would likely not exceed 0.1 mm, (ECF No. 145-5, Hillman Mot., Ex. D, Hillman Dep. 42:12-19). Presidio also asserts that the

patents-in-suit require measurements in the millionths of an inch. (Hillman Mot. 9, 16-17.)

Additionally, Presidio argues that Dr. Hillman's methods are unreliable because he inconsistently applies the phrase "small" in his infringement analysis. (*Id.* at 12.) That is, the first claim term of the '547 Patent requires a device body "having small dimensions," and Dr. Hillman considered the accused products ranging in size from 25 x 12 mils¹¹ to 80 x 50 mils to satisfy this requirement. (ECF No. 145-2, Ex. A, Hillman Rept. ¶¶ 29, 40.) According to Presidio, "if 80 mils can be 'small' then there is no reasonable limit to what can constitute 'small' according to the Court's definition of 'negligibly.'" (Hillman Mot. 12.)

Plaintiffs respond that the court has already refused to read in an express, numerical limitation in its claim construction. (Hillman Opp. 20-21.) Plaintiffs do not expressly argue that *no* measurement is required to prove infringement. However, they argue that neither patent requires precision to the millionths of an inch, as Presidio claims. (*Id.* at 22.) In a footnote, plaintiffs argue that Presidio's contention that the relevant capacitor measurements must be in

¹¹ A mil is a unit of measurement equal to one-thousandth of an inch. See *Thousandth of an inch*, Wikipedia, https://en.wikipedia.org/wiki/Thousandth_of_an_inch (last visited May 29, 2019).

"millionths of an inch" may be predicated on Presidio's incorrect understanding of the unit mils. (*Id.* at 23 n.13.) One mil, plaintiffs point out, is equal to one-thousandth of an inch, and Dr. Hillman's micrographs included a scale in mils. (*Id.*)

As to Presidio's claim that Dr. Hillman used the term "small" inconsistently, plaintiffs respond that defendant conflates the relevant claim terms. (*Id.* at 21.) Plaintiffs first note that Presidio admitted that the accused capacitors could be surface mounted on a larger circuit board. (*Id.* at 22; ECF No. 146-19, Hillman Opp., Ex. 16, '547 Patent col. 1 l. 11-15.) Dr. Hillman opined, based on this admission, that a person of ordinary skill in the art ("POSITA") would consider the dimensions of the accused capacitors to be small and within the scope of claim 1 of the '547 Patent. (Hillman Rept. 11-12.) As to the claim term "negligibly," plaintiffs reiterate their argument that Presidio's discovery responses, and manufacturing documents, demonstrate that every accused product includes a dipped portion and a pad that extends farther than the dipped portion. (Hillman Opp. 21-22.)

Presidio's contention that Dr. Hillman's methods are unreliable because he failed to take any measurements requires the initial premise that plaintiffs must prove infringement through *measurement* of the terminations and relevant dielectric

layers. Presidio stakes its claim on Dr. Hillman's deposition testimony concerning whether the termination material extending "negligibly" over the top surface of the device body will not typically extend more than 0.05 mm, or 1.965 mils. (Hillman Reply 9 (citing Hillman Dep. 42:12-19).) However, the court has not construed the term "negligibly," or other relevant claim terms, to require a precise measurement. Though some claims in the patents-in-suit include an approximate numerical limit, (see, e.g., '547 Patent col. 6 l. 38 ("A thin film capacitor device . . . wherein said device body has a nominal height of no greater than about 0.40 mm.")), these measurements may be ascertained by other means. As such, Dr. Hillman referred to Presidio's advertising materials which list uniform dimensions for the accused capacitors, and thus provides a sufficient basis for his conclusion that the accused products satisfy the claim's height limitation. (See, e.g., Hillman Rept. 11 ("As indicated on page 15 of Presidio's product catalog, 'Ceramic Capacitors for RF Engineers,' Catalog 6100, Rev. F, May 2014, and as generally confirmed by the micrographs, BB capacitors are offered in ceramic body lengths and widths ranging from approximately 25x12 mils (case size '0201') to approximately 80x50 mils (case size '0805'). The ceramic body heights range from approximately 18 mils to a maximum of 38 mils." (citations omitted).) Defendant identifies no specific term in the

allegedly infringed claims that required Dr. Hillman to measure the terminations in order to prove infringement. The parties appear to agree, and the relevant claim construction makes clear, that infringement will turn on the appearance of the capacitors' respective structures, including a comparison of the top portion of the termination to the bottom portion. Both can be determined visually by the fact-finder.

Finally, Presidio's argument that Dr. Hillman inconsistently construed the term "small" is unconvincing. Dr. Hillman opined that a POSITA could consider the device body dimensions of the accused products to be small. (Hillman Rept. ¶ 29.) A POSITA could understand that these particular capacitors are small *relative* to other capacitors used in the art. Moreover, the court's claim construction of the term "negligibly over a top surface" did not refer to any particular measurement, but provided for comparing the top surface termination to the bottom termination. Both phrases, "small" and "negligible," require comparison to some other structure to be practiced, and nothing in Presidio's papers indicate that Dr. Hillman did this inconsistently.

2. '791 Patent

Presidio largely repeats the arguments described above for the '791 Patent. (Hillman Opp. 12.) Claim 2 of the '791 Patent requires that the first and second dielectric layers

be "coextensive," or extend over the same area. (ECF No. 148-3, Woods Opp., Ex. B, '791 Patent col. 4 l. 42.) Dr. Hillman attempts to demonstrate infringement by taking cross-sections of two capacitors, one lengthwise and one widthwise, and highlighting the first and second dielectric layers to demonstrate that the layers share the same apparent dimensions. (Hillman Rept. 40-41.) Presidio faults Dr. Hillman's approach, asserting that it can only demonstrate whether the layers are coextensive at a single point, and that the relevant layers may have different lengths or widths at any other point along the dimension. (Hillman Mot. 18.) Specifically, Presidio argues that "if there is a point along the width of the capacitor where the width of the second dielectric layer is different than that of the first dielectric layer, then the widths of the two layers would not be coextensive." (*Id.*)

Plaintiffs respond that Dr. Hillman relied on Presidio's own admission that the lengths and widths of dielectric layers within a certain BB capacitor are coextensive, and ascertainable visually. (Hillman Rept. ¶ 79.) Presidio's admission responds to an image of a capacitor's cross-section and plaintiffs' request that Presidio admit two indicated layers, ostensibly the first and second layers, were coextensive. (ECF No. 146-12, Hillman Opp., Ex. 9, Def.'s Resps. Pls.' 1st Reqs. Admis. 21.) Presidio admitted as much.

(*Id.*) Dr. Hillman also reviewed Presidio's product catalogs which indicated that the length and width dimensions of the capacitors were the same by design. (Hillman Opp. 11 (citing ECF Nos. 146-8, 146-9, 146-10, Exs. 5-7, Presidio Catalogs).)

Presidio also relies on a prior art reference, Florian, at issue in an IPR of the '879 Patent petitioned by Presidio. (Hillman Mot. 13.) It is not clear, however, the theory under which Presidio believes preclusion of Dr. Hillman's opinion is warranted based on Florian. Dr. Hillman opined that corner rounding present in the Florian reference widely varied the length and width dimensions of a particular ceramic layer from the rest of the ceramic body. (*Id.* (citing ECF No. 145-11, Hillman Mot., Ex. J, Shanfield Decl. ¶ 55-59).) Additionally, in deciding the IPR, the PTAB found that "Florian do[es] not teach coextensive dielectric layers of the completed capacitor," that "Florian consistently discloses an electrical multilayer capacitor with *rounded* edges as its invention," and that "Florian discloses a process by which 'edges and corners are eroded, *i.e.*, rounded off' by a mechanical surface treatment process."¹² (*Id.* at 14-15 (citing PTAB '897 IPR Decision, at 14-

¹² At IPR, Presidio as petitioner argued that the process in Florian "equally affected" the top and bottom dielectric layers resulting in "equal lengths and widths," and that the "rounding process . . . ha[d] a very slight effect on the dielectric layer dimensions at most." (ECF No. 145-12, Hillman Mot., Ex. K, Presidio Components, Inc. v. Am. Tech. Ceramics Corp., No. IPR2015-01331, 14-15 (P.T.A.B. Nov. 30, 2016) [hereinafter PTAB '897 IPR Decision].)

15).) As a result, the PTAB explained that there was insufficient basis to conclude that the dielectric layers of Florian's multilayer capacitor were necessarily coextensive. (PTAB '897 IPR Decision, at 15.)

Plaintiffs respond that the prosecution history of the '879 Patent does not support a rule that "any extent of corner rounding precludes layers from being coextensive," and that the Florian reference did not necessarily disclose coextensive layers as claimed in the '879 Patent due to corner rounding. (Hillman Opp. 24.) In any event, plaintiffs argue, Dr. Hillman analyzed the accused products and determined that the relevant dielectric layers were coextensive despite any corner rounding. (*Id.*) Plaintiffs additionally dispute Presidio's contention that Dr. Hillman admitted the relevant dielectric layers must be the exact same dimensions in length and width. (*Id.* at 23.) Plaintiffs also note Dr. Hillman's criticism of Presidio's expert's analysis for relying on "localized imperfections" and for "cross-sectioning . . . to an inappropriate depth" and "too close to the corners or vertices." (*Id.* (citing Summ. J. Order 58-61); ECF No. 146-5, Hillman Opp., Ex. 2, Hillman Rebuttal ¶ 3.)

Presidio's relevant discovery admissions are illustrative. Presidio admitted that two layers in a depicted capacitor's cross-section were co-extensive, without raising the

arguments it does in the instant motion, and without first requiring plaintiffs to provide the relevant measurements of the two layers. Presidio addresses its discovery response in a footnote, stating that it "did not admit that every image of that single capacitor shows the layers are coextensive."

(Hillman Mot. 16 n.3.) In arguing now that the depicted layers are only coextensive as analyzed at a single point or that imperfections should be considered, Presidio, in effect, argues that an infringement analysis must consider the measurements at every point along the relevant dielectric layer. This would require Dr. Hillman to have measured the capacitors at innumerable points to determine if the layers are coextensive. And, as with Presidio's argument that each capacitor is different for purposes of the '547 Patent claims, Presidio now seems to argue that imperfections or defects in the manufacturing process would preclude an infringement finding. However, Presidio's discovery responses do not warrant such treatment.

As to the Florian reference, defendant does not explain how this reference and Dr. Hillman's previous, unrelated opinion warrant exclusion of his opinion. In any event, Presidio has not established why the Florian reference renders Dr. Hillman's opinion as to the '791 Patent unreliable.

Defendant's motion is thus DENIED. Dr. Hillman can explain on direct, as he sufficiently did in his report, and defendant can challenge on cross, why he was satisfied with his chosen sample size, and why his analysis applies to the remainder of the accused products. Additionally, in light of the patents-in-suit's respective limitations and the court's claim construction, Dr. Hillman's methods are not unreliable for failing to measure the top surface terminations or the dimensions of internal dielectric layers.

II. Dr. James Woods

Finally, defendant moves to preclude the opinion of Dr. Woods, plaintiffs' damages expert. Presidio does not challenge Dr. Woods' qualifications, or his opinion in its entirety, only his reasonable royalty rate analysis employing the *Georgia-Pacific* factors. (Woods Mot. 1; ECF No. 151-1, Woods Mot., Ex. 1, Woods Rept. 27-28.) The parties dispute Dr. Woods' analysis of a hypothetical negotiation between Presidio and plaintiffs giving rise to a hypothetical license for Presidio's alleged use of the patents-in-suit. (Woods Mot. 2-3.)

Under 35 U.S.C. § 284, a patentee that prevails on an infringement claim is entitled to damages "adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the

infringer, together with interest and costs as fixed by the court.” 35 U.S.C. § 284. Despite this broad language, patentees tend to try to analyze their damages cases under a lost profits framework, or else fall back on the statutory grant of a reasonable royalty. *Pulse Med. Instruments, Inc. v. Drug Impairment Detection Servs., LLC*, 858 F. Supp. 2d 505, 514 (D. Md. 2012) (citing *Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1366 (Fed. Cir. 2008)).

To determine a reasonable royalty, district courts often resort to the so-called “willing licensor-willing licensee” approach by considering a hypothetical negotiation between the parties, commencing on the date the alleged infringement began. *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1312 (Fed. Cir. 2011); *Interactive Pictures Corp. v. Infinite Pictures, Inc.*, 274 F.3d 1371, 1384 (Fed. Cir. 2001). Courts typically accept expert testimony that calculates a reasonable royalty by first selecting a royalty rate and then applying that rate to a royalty base, the price of an infringing product expressed in dollars, to arrive at a royalty damages figure. See, e.g., *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1388 (Fed. Cir. 2009); *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 61, 68-69 (Fed. Cir. 2012); *On Track Innovations Ltd. v. T-Mobile USA, Inc.*, 106 F. Supp. 3d 369, 418-19 (S.D.N.Y. 2015).

Title 35 Section 284 does not prescribe a particular method to calculate a reasonable royalty, however experts and courts have favored the oft-cited *Georgia-Pacific* analysis that considers fifteen salient features of a patent infringement case to arrive at a reasonable royalty.¹³ See *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970);

¹³ The *Georgia-Pacific* factors are: (1) the royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty; (2) the rates paid by the licensee for the use of other patents comparable to the patent in suit; (3) the nature and scope of the license, as exclusive or non-exclusive, or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold; (4) the licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly; (5) the commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter; (6) the effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales; (7) the duration of the patent and the term of the license; (8) the established profitability of the product made under the patent; its commercial success; and its current popularity; (9) the utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results; (10) the nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention; (11) the extent to which the infringer has made use of the invention; and any evidence probative of the value of that use; (12) the portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions; (13) the portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer; (14) the opinion testimony of qualified experts; and (15) the amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license. *Georgia-Pacific*, 318 F. Supp. at 1120.

see also *Pulse Med. Instruments*, 858 F. Supp. 2d at 514 (“[T]he Federal Circuit has repeatedly endorsed analysis of the *Georgia-Pacific* factors to estimate a reasonable royalty rate for the purposes of calculating patent damages.”).

As discussed above, a hypothetical negotiation is said to occur on the date the infringement began. In this case, the following facts are relevant to determining the proper negotiation date: (1) AVX owns the '547 Patent, and did so as of November 2000, (Thomas Rebuttal ¶ 101); (2) Presidio made its first shipment of an accused product on June 18, 2001, (*id.*); (3) ATC owns the '791 Patent which issued on January 8, 2002, (*id.*); (4) AVX acquired ATC sometime in 2007, (Woods Rept. 32).¹⁴ Thus, for the purposes of considering a hypothetical negotiation, defendant's alleged infringement began for the '547 Patent on June 18, 2001, and for the '791 Patent on January 8, 2002. Accordingly, Dr. Woods selected a hypothetical negotiation date of “late 2001, early 2002.” (Woods Rept. 28.) Additionally, throughout his report, Dr. Woods referred to plaintiffs using the collective shorthand “ATC” to represent both ATC and AVX. (*Id.* at 1.)

Dr. Woods' choices, Presidio argues, yield a single negotiation in which AVX is excluded entirely and ATC negotiates

¹⁴ AVX licensed the '547 Patent to ATC in November 2014. (Woods Mot. 1.)

for a license to a patent it did not own, the '547 Patent. Presidio argues that ATC could not have participated in a hypothetical negotiation with Presidio in "late 2001, early 2002" for a license to practice the '547 Patent because ATC did not have rights to that patent at the time. (Woods Mot. 5.) Any hypothetical negotiation for the '547 Patent would have occurred between AVX (rather than ATC) and Presidio on June 18, 2001—when Presidio first shipped the accused products—and for the '791 Patent between ATC and Presidio on January 8, 2002—when the '791 Patent issued. (*Id.* at 4-5.) In support, Presidio points to Dr. Woods' report that states: "[t]he hypothetical negotiation would have occurred in late 2001, early 2002 after both Patents-in-Suit had issued and Presidio was selling its BB Capacitors." (Woods Rept. 28.) Presidio argues that Dr. Woods erred by considering only a single negotiation, instead of one for each of the two distinct patents and respective patentees, and by, in effect, excluding AVX from the negotiation. (Woods Mot. 5.) Presidio further argues that Dr. Woods erred by basing his analysis on "alleged direct competition" only between ATC and Presidio, without considering or supporting an assumption of direct competition between AVX and Presidio. (*Id.* at 6.)

In support of its motion to preclude, Presidio cites to two Northern District of California cases in which the district court found excludible error in a damages expert's

hypothetical negotiation. In *Oracle Am., Inc. v. Google Inc.*, 798 F. Supp. 2d 1111 (N.D. Cal. 2011), the plaintiff alleged infringement by Google of a patent previously owned by Sun Microsystems, Inc., a company the plaintiff acquired. *Id.* at 1116. Oracle's damages expert hypothesized a negotiation between Oracle and Google, despite the fact that Sun Microsystems was the patent holder at the time infringement began, and thus, Google, as the infringer, would have licensed its practice of the patent from Sun, not Oracle. *Id.* The district court reasoned that "Oracle and Sun were different companies with different interests," and concluded that it was error to inject Oracle into the bargaining room. *Id.* at 1117. The court ordered the plaintiff to rectify this error, along with several other errors the court detailed, in a revised expert report to be served prior to trial. *Id.* at 1122.

Presidio also cites to *Opticurrent, LLC v. Power Generations, Inc.*, No. 17-CV-3597, 2018 WL 6727826 (N.D. Cal. Dec. 21, 2018), in which the district court excluded an expert opinion for similar error. In *Opticurrent*, the plaintiff's damages expert analyzed a hypothetical negotiation between the parties to the suit, even though the plaintiff did not exist at the time infringement began. *Id.* at *8. The court concluded that the individual who owned the patent at the time of infringement, the inventor, was the proper party for the

hypothetical negotiation, and deemed this basis alone sufficient for exclusion. *Id.* at *9.

Plaintiffs respond that Dr. Woods' royalty opinion in fact considered two separate hypothetical negotiations, one between AVX and Presidio, and the other between ATC and Presidio. (Woods Opp. 7.) In support, plaintiffs note that Dr. Woods referred to plaintiffs collectively as ATC throughout his analysis. (*Id.*) Plaintiffs also argue that Dr. Woods considered two different negotiation dates, "late 2001" and "early 2002," which led to his conclusion that a \$0.25 per capacitor royalty for each or both of the patents-in-suit was reasonable. (*Id.* at 8.) According to plaintiffs, late 2001 corresponds to the June 2001 alleged infringement of the '547 Patent, and early 2002 corresponds to the January 2002 issuance of the '791 Patent. (*Id.* at 11.)

Additionally, plaintiffs argue that Presidio would have known AVX and ATC would become a single entity and would have thus demanded a single royalty for both patents. (*Id.* at 8.) Plaintiffs support this argument by reference to the doctrine of the "book of wisdom" that permits a hypothetical negotiation to consider certain post-infringement information in determining a reasonable royalty. (*Id.* at 5-6 (citing *Sinclair Ref. Co. v. Jenkins Petrol. Process Co.*, 289 U.S. 689, 697-98 (1933)).) Thus, as Dr. Woods explained and plaintiffs argue,

both AVX and ATC would have known that the relevant capacitors market would have grown significantly, that Presidio would require licenses to both patents to sell the accused capacitors, and that AVX and ATC would later merge. (Woods Rept. 43-44.)

Plaintiffs next point to Dr. Woods' deposition testimony in which he testified that it did not make a difference to his conclusion which party is named at the hypothetical negotiation. (Woods Opp. 9 (citing ECF No. 149-3, Woods Opp., Ex. 2, Woods Dep. 165:3-22).) Thus, plaintiffs argue, "narrating *each* negotiation" for each of the patents-in-suit would have been "unnecessary and redundant." (*Id.* at 10.) Plaintiffs also contend that Dr. Woods did not err by failing to select a specific date, opting instead for a more general timeframe of late 2001 and early 2002. (*Id.* at 11-12.) During this timeframe, plaintiffs argue, the relevant economic factors to the negotiation were still in the future, e.g. the expansion of the market, and thus the parties' relative economic positions had not changed. (*Id.*)

Plaintiffs' interpretation of Dr. Woods' report is strained. A plain reading of the record indicates that Dr. Woods considered a single negotiation. However, Presidio's contention that Dr. Woods necessarily did not consider AVX at all because he cited only ATC is not sound, and Dr. Woods' use of shorthand is not by itself fatal to his opinion.

Beginning with the number of negotiations Dr. Woods considered, it is clear he only analyzed a single event. In declaring his assumptions, his report describes a single negotiation, not two, within a stated timeframe: "the hypothetical negotiation would have occurred in late 2001, early 2002 *after* both Patents-in-suit had issued and presidio was selling its BB Capacitors." (Woods Rept. 28 (emphasis added).) First, though plaintiffs attempt to separate "late 2001, early 2002" into two distinct dates, the phrase "after both Patents-in-Suit had issued," clearly modifies "late 2001, early 2002," and refers only to a single point in time. Second, it is unpersuasive to describe June 2001 as "late 2001," as June rests squarely in the first, or earlier, half of the calendar year. Moreover, throughout his report and deposition testimony, Dr. Woods refers to a single negotiation that he states took place some six to nine months after the alleged infringement of the '547 Patent began. (See, e.g., Woods Dep. 160-161.) Thus, plaintiffs' argument that Dr. Woods actually considered two hypothetical negotiations is unavailing; it is clear Dr. Woods considered only one. (See *id.* at 160:10-17; 165:9-12; 166:6-9.)

As to *when* this hypothetical negotiation took place, the record is also clear that Dr. Woods selected January 2002, when the '791 Patent issued, the second of the patents-in-suit to issue. Indeed, he testified during his deposition that the

hypothetical negotiation took place six to nine months after Presidio's sale of BB capacitors began. (*Id.* at 161:5-12.) Nonetheless, Presidio does not cite to a case that supports the proposition that Dr. Woods' decision to hypothesize a single negotiation, six to nine months after infringement of one of the relevant patents began, is excludable error. Indeed, it appears that the parties' relative economic positions had not significantly changed such that a license negotiated six to nine months earlier would have been materially different—the capacitor market was still nascent as reflected by Presidio's minimal sales during the period. (See Woods Rept. 33, Table 5; 33.) Thus, this minimal six- to nine-month delay in the hypothetical negotiation is not, by itself, an apparent error that warrants preclusion, and defendant has not explained how, if at all, the timeframe impacted Dr. Woods' analysis.

Having determined that Dr. Woods only considered a single negotiation in January 2002, the court must now determine if Dr. Woods treated plaintiffs either as two distinct entities or as a single entity. The risk of this latter course is that one or both of the combined plaintiffs' respective interests would not be accurately represented at a hypothetical negotiation and the royalty rate conclusion would not be reliable. Indeed, this very reason, the differing interests

between Oracle and Sun, was central to the *Oracle* court's conclusion. See *Oracle*, 789 F. Supp. 2d at 1117.

Dr. Woods' report and the deposition testimony that the parties have submitted makes clear that Dr. Woods considered plaintiffs as a single entity for purposes of his *Georgia-Pacific* analysis. Plaintiffs' reliance on the so-called "book of wisdom" doctrine is misplaced and unhelpful. The book of wisdom is an exception to an otherwise *ex ante* determination that permits consideration of certain post-infringement information under appropriate circumstances. *Lucent Techs.*, 580 F.3d at 1333. It does not, however, deem parties omniscient in a hypothetical negotiation.

For example, post-infringement information under the doctrine is at its most relevant when the infringer experienced a windfall as a result of its misconduct. *On Track Innovations*, 106 F. Supp. 3d at 410. Comparatively, post-infringement information is less relevant when it is being presented by the infringer to emphasize the lack of damages caused by their own infringement. *Id.*; see also *Aqua Shield v. Inter Pool Cover Team*, 774 F.3d 766, 772 (Fed. Cir. 2014) ("Evidence of the infringer's actual profits generally is admissible as probative of his *anticipated* profits." (emphasis added)). Thus, post-infringement information may be properly considered to confirm the negotiating parties' *predictions* of the value of a patent

license before infringement. See also *Riles v. Shell Expl. & Prod. Co.*, 298 F.3d 1302, 1313 (Fed. Cir. 2002) (“A reasonable royalty determination for purposes of making a damages evaluation must relate to the time infringement occurred, and not be an after-the-fact assessment.”).

Dr. Woods seeks to use the book of wisdom to suggest that the parties would have known ATC and AVX would merge, thus prompting Presidio to require both plaintiffs at the same negotiating table. (Woods Opp. 5-7; Woods Dep. 167:4-9.) This use of post-infringement evidence, while not necessarily conferring an improper advantage to plaintiffs by inflating damages, is an attempt to rectify Dr. Woods’ unwieldy combined analysis. Additionally, premature treatment of the plaintiffs as a merged, single entity at the negotiation undercuts plaintiffs’ alternative argument that Dr. Woods actually considered two separate negotiations. Despite plaintiffs’ citation to *Lucent Technologies* to support their use of the “book of wisdom,” (see Woods Opp. 6), *Lucent Technologies* makes clear the *limited* circumstances under which post-infringement information may be considered: sales *projections* the parties would have estimated, based on *past* sales, surveys, or testing. 580 F.3d at 1334. Post-infringement evidence that confirms these types of predictions is permissibly considered to determine a reasonable royalty. This does not, however, permit

an expert to grant constructive knowledge to the parties of events they did not predict but that would later come to fruition, such as the merger in this case. Thus, it was not appropriate for Dr. Woods to treat the two plaintiffs as a single, would-be merged entity at the time of infringement, or even separate parties that expected merger.

Moreover, even if Presidio knew plaintiffs would merge, it is difficult to accept plaintiffs' position that Presidio would have wanted to negotiate against *both* its competitors at the same time. Presidio, reasonably, might have attempted to negotiate a license from each plaintiff separately. As to the parties' competition, defendant is incorrect that Dr. Woods failed to explain competition between AVX and Presidio. He did so briefly at his deposition, stating that all the parties competed in the passive components market at the time of the hypothetical negotiation. (Woods Dep. 166-67.) However, this explanation further undercuts Dr. Woods' decision to put the plaintiffs on the same side of a negotiating table, at a single negotiation, if the plaintiffs were also competing with one another.

Given that the book of wisdom cannot support Dr. Woods' approach, the court must determine if he nevertheless described both plaintiffs' respective positions and interests at a hypothetical negotiation such that he reliably arrived at a

reasonable royalty for each of the patents-in-suit. Dr. Woods' report, however, makes it nearly impossible to identify the plaintiffs' respective and distinct bargaining positions based on the use of the collective "ATC." Indeed, it is hard to discern where ATC ends and AVX begins. Additionally, he refers to numerous sales occurring many years after the hypothetical negotiations to support his analysis, but ascribes the sales only to ATC, even though some occurred prior to plaintiffs' merger. (See, e.g., Woods Rept. 34-35.) For example, Dr. Woods compares the relative prices and profits of each product sold by Presidio and ATC. (*Id.* at 42-44.) But, in using the shorthand "ATC," it is not clear if Dr. Woods refers only to ATC's relevant performance or, if he combined the plaintiffs' respective positions, how he did so, and why. Dr. Woods' deposition provides some clarity, however, as he admitted that references in his report to ATC "means ATC and AVX." (Woods Dep. 180: 6-10.) When defendant's counsel pointed out that it would be incorrect to "read in" AVX to the phrase "ATC would be working to introduce its ultra-broadband capacitors products to market," Dr. Woods resisted, stating the phrase as drafted was correct because ATC would become a part of AVX in the future. (*Id.* at 180:15-20.)

Thus, the court concludes that Dr. Woods improperly combined plaintiffs as a single entity that cannot be untangled

in a reliable way. Moreover, this combined entity is something of a "black box" as it is not clear how ATC's and AVX's respective interests and positions are represented at the time infringement began, information that is vital to the hypothetical negotiation. *Marini*, 995 F. Supp. 2d at 180; Fed. R. Evid. 702 (requiring expert witness "reliably appl[y] the principles and methods to the facts of the case"). Both AVX's and ATC's *individual* sales, market share, and established profitability of their patented products, among other factors considered in a hypothetical negotiation analysis, are relevant and essential to a reliable reasonable royalty analysis of the patents-in-suit, yet these separate considerations are missing from the analysis. It is possible that the two plaintiffs would have had similar interests and bargaining positions resulting in the same reasonable royalty rate for each of the patents-in-suit. The court, however, is doubtful given AVX's and ATC's relative positions today, and given what the court understands the plaintiffs' relative positions were at the time of infringement. (Woods Rept. 32.) As represented by defendant's counsel at oral argument, AVX was then a large conglomerate, ATC was struggling, and the two had different product offerings. (Tr. 91-92.) This disparity likely would have resulted in different positions for each of the plaintiffs. The court, however, can only speculate based on the record before it, and

thus, cannot conclude that Dr. Woods' reliably applied the *Georgia-Pacific* factors to the facts of this case in determining a reasonable royalty. *Amorgianos*, 303 F.3d at 267 (noting the court should exclude evidence if an expert's flaw "is large enough that the expert lacks 'good grounds' for his or her conclusions").

For the foregoing reasons, the court finds that Dr. Woods' royalty rate conclusion is inadmissible because he unreliably combined the plaintiffs and muddled their respective bargaining positions and interests, rather than articulating and considering them separately; defendant's motion is therefore GRANTED. With trial imminent, a stay to permit revision of Dr. Woods' report is not feasible and is likely to prejudice defendant. The court concludes that the only solution is to cut this Gordian knot, rather than attempt to disentangle plaintiffs in Dr. Woods' royalty analysis. Although the court's ruling on this aspect of defendant's motion may leave plaintiffs without testimony to support a reasonable royalty, it does not impact their lost profits case. Furthermore, there may be portions of Dr. Woods' report and underlying opinion that can support a jury determination of a reasonable royalty without Dr. Woods' ultimate conclusion. However, the court is not in a position to parse through the report for this purpose. Plaintiffs may offer at trial the underlying factors disclosed in Dr. Woods' report

that support his conclusion as to a reasonable royalty, so long as those bases are not attributable to a prematurely merged AVX or ATC and relate to factors known or knowable at the time of the hypothetical negotiation. Nevertheless, Dr. Woods will not be permitted to testify concerning his conclusion regarding a \$0.25 per capacitor reasonable royalty.

CONCLUSION

For the foregoing reasons, plaintiffs' motion is GRANTED and Dr. Randall and Mr. Thomas may not testify as precluded herein. Defendant's motion to preclude Dr. Hillman's testimony is DENIED, and its motion to preclude Dr. Woods' reasonable royalty rate testimony is GRANTED.

SO ORDERED.

Dated: May 30, 2019
Brooklyn, New York

/s/

HON. KIYO A. MATSUMOTO
United States District Judge
Eastern District of New York