No. 17-

IN THE Supreme Court of the United States

AMERICAN TECHNICAL CERAMICS CORP.,

Petitioner,

v.

PRESIDIO COMPONENTS, INC.,

Respondent.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

PETITION FOR A WRIT OF CERTIORARI

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QUESTION PRESENTED

The Patent Act requires every patent to "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. § 112 ¶ 2. For more than a century, this definiteness requirement has served to "apprise the public of what is still open to them." *McClain v. Ortmayer*, 141 U.S. 419, 424 (1891); *see also Nautilus*, *Inc. v. Biosig Instruments*, *Inc.*, 134 S. Ct. 2120, 2129 (2014) (holding that patent must be "precise enough to provide clear notice of what is claimed.").

In this case, the Federal Circuit gutted the critical notice function of patent claims. It further ignored this Court's clear instructions by finding the patent-in-suit definite based exclusively on extrinsic evidence generated more than a decade after the patent issued. That evidence was one trial expert's opinion that a person of ordinary skill in the art ("POSITA") would be able to ascertain the scope of the claims after concocting a gallimaufry of novel experiments that had never been performed outside of the instant litigation, were unknown to the scientific community, and were neither described nor identified in the patent.

The question presented is:

When a patent is devoid of intrinsic evidence and the scientific literature provides no guidance with respect to determining claim scope, can a court rely only on the *ex post facto* application of the scientific method to hold that the "clear notice" requirement of § 112 ¶ 2 has been satisfied?

RULE 29.6 STATEMENT

American Technical Ceramics Corporation ("ATC") is a wholly-owned subsidiary of AVX Corporation, which is publicly traded. Kyocera Corporation owns more than 10% of the stock of AVX Corporation.

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Petitioner American Technical Ceramics Corp. ("ATC") respectfully petitions this Court for a writ of certiorari to review the judgment of the U.S. Court of Appeals for the Federal Circuit in this case.

OPINIONS BELOW

The opinion of the U.S. Court of Appeals for the Federal Circuit is reported at 875 F.3d 1369, and reproduced at Pet. App. 1a–27a.

The relevant opinion and order of the U.S. District Court for the Southern District of California in this case is available at 2016 WL 10935215 and is reproduced at Pet. App. 30a–69a. In addition, relevant opinions and orders of the U.S. District Court for the Southern District of California in a related proceeding involving the same patent are available at 2008 WL 3925723 and 2009 WL 10668675 and are reproduced at Pet. App. 70a–101a.

JURISDICTION

The district court had jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a). The court of appeals had jurisdiction based on 28 U.S.C. § 1295. That court entered its judgment on November 21, 2017. Pet. App. 28a. A timely petition for rehearing and rehearing en banc was denied on January 26, 2018. Pet. App. 102a. This Court has jurisdiction pursuant to 28 U.S.C. § 1254(1).

STATUTORY PROVISIONS INVOLVED

"The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. 112 ¶ 2.¹

INTRODUCTION

The claims of a patent define the metes and bounds of an invention. Graver Tank & Mfg. Co. v. Linde Air *Prods. Co.*, 336 U.S. 271, 277 (1949) ("We have frequently held that it is the claim which measures the grant to the patentee."). They must "clearly distinguish what is claimed from what went before in the art and clearly circumscribe what is foreclosed from future enterprise." United Carbon Co. v. Binney & Smith Co., 317 U.S. 228, 236 (1942). The "public should not be deprived of rights supposed to belong to it without being clearly told what it is that limits these rights." Merrill v. Yeomans, 94 U.S. 568, 573 (1876). Accordingly, since 1870, the patent laws have demanded particularity and distinctness. See Act of July 8, 1870 c. 230 § 26, 16 Stat. 198, 201 (requiring the inventor to "particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery"); see also White v. Dunbar, 119 U.S. 47, 52 (1886) ("The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is").

 $\mathbf{2}$

^{1.} Effective September 16, 2012, the Leahy-Smith America Invents Act ("AIA") replaced § 112 ¶ 2 with § 112(b). Nevertheless, the pre-AIA version of § 112 applies because the patent-in-suit issued before the AIA's effective date.

Today, the Patent Act's "clarity and precision demand" is codified in 35 U.S.C. § 112 ¶ 2. See Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2124 (2014). It continues to ensure that "a patent is precise enough to afford clear notice of what is claimed." Id. at 2129. Such notice must be provided to guard against "a zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims." Id. (quoting United Carbon Co., 317 U.S. at 236). In determining what constitutes clear notice, this Court has required that "patent claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." Id. at 2129.

In this case, the Federal Circuit, once again, strays from the statutory mandate—as reinforced by this Court's explicit instructions—that a patent provide the public with clear notice. At the time the patent-in-suit issued in 2004, the claims, the specification, and the prosecution file history disclosed no method to measure the critical element at the heart of the claims. Moreover, although the specification referenced an established method of measurement (i.e., insertion loss testing) for a different characteristic than the one at issue, it was *not* well known how to use that method to determine what falls within and outside the scope of claims. The Federal Circuit expressly recognized this fact. Pet. App. 8a ("While it was established that insertion loss testing could be used to measure the overall performance of the capacitor, it was not well known as a method to measure the comparative contributions from different capacitances within the multilayer capacitor."). The court, nonetheless, allowed the patentee to backfill the void in the intrinsic record with evidence generated in 2015 specifically and exclusively for this litigation. That evidence is comprised of litigation-driven expert opinion concerning how a POSITA could employ the "scientific method" to divine a series of experiments which employ a known method of measurement. Although these experiments were conceived of long after the patent issued and are nowhere described in any industry or scientific publication,² the patentee's expert testified that a POSITA could *ex nihilo* "figure out" how to derive, perform, combine, and interpret them to determine the claims' scope.

This case illustrates the harm caused when the publicnotice function is shifted from the intrinsic record to newly-developed extrinsic evidence. If left unreviewed, the Federal Circuit's decision will necessarily diminish a central purpose of patent claims and lead to the very "zone of uncertainty" this Court has sought to eliminate. Indeed, this case returns the state of Federal Circuit jurisprudence to a pre-Nautilus world. The result is manifest. Patentees will continue to exploit the ambiguities in their patent claims to thwart others from being able to determine how to legitimately compete in the marketplace. Moreover, regardless of the intrinsic record, a patentee can satisfy 112 ¶ 2 by just retaining an expert to invent a method to test the scope of the claims. In total, the implication of the panel's holding is that—so long as an expert testifies that he has extensive experience, can run experiments using standard methods of measurement, and applies his judgment—every claim must be definite. This Court should, therefore, grant certiorari.

^{2.} Even to the date of this petition, this test is still not the subject of one scientific paper or publication.

STATEMENT OF THE CASE

As its name suggests, U.S. Patent No. 6,816,356 (the "356 patent" or "Devoe") is directed to a multilayer capacitor for use in broadband applications. Multilayer capacitors typically include hundreds of layers of conductive and non-conductive material stacked together. Each layer in the multilayer capacitor has its own electrical properties—including capacitance, resistance, and inductance—which affect the overall performance of the device. This performance can be measured using a network analyzer to collect data concerning insertion loss. That is, the network analyzer shows over a range of frequencies the ratio of the device's total input power to its total output power. Not only can the network analyzer not measure capacitance, but it also cannot isolate the amount of insertion loss, if any, that is attributable to any particular layer of the multilayer capacitor.

When the '356 patent issued in November 2004, it claimed a multilayer capacitor that included, among other things, two external contacts with "the second contact being located *sufficiently close* to the first contact *to form a first fringe-effect capacitance* with the first contact." Devoe at 13:1–5 (emphasis added). This last element of claim 1 represented the asserted novelty of the invention. As explained in the specification (and illustrated further in Figure 10A reproduced below), "in this device, the external conductive plates 72 and 74 [highlighted] . . . have been extended toward each other so as to create a capacitance between 72 and 74 based upon fringe-electric field lines extending to and from the adjacent edges of those plates." Devoe at 7:21–26, 7:46–56.



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The claims of the '356 patent were first construed in 2008 in the context of a litigation brought by Presidio alleging that ATC's 545L capacitor infringed (the "Presidio I" litigation). In particular, the district court held that the above-recited claim element required that "an end of the first conductive contact and an end of the second conductive contact are positioned in an edge-toedge relationship in such proximity to form a determinable capacitance." Pet. App. 86a. The district court later clarified this construction, finding that "determinable capacitance" means "a capacity that is capable of being determined." Pet. App. at 101a. In making this clarification, the court expressly rejected Presidio's attempts to read into the claim a requirement that the external contacts form a capacitance that affects the insertion loss or data loss of the capacitor as a whole. Pet. App. at 99a. It found that "reading an insertion loss effect into claim one" is inappropriate. Id.

Applying the district court's claim construction, the jury in *Presidio I* found that ATC infringed the '356 patent. The district court affirmed that finding based on the trial testimony of Presidio's expert. Pet. App. 15a. In *Presidio I*, Dr. Huebner testified that the 545L capacitor

met the limitations of the '356 patent based on "a purely theoretical calculation of fringe-effect capacitance." *Id.* He did not measure capacitance (or insertion loss) with any instruments; rather, he used a formula—C=kA/ d³—to show fringe-effect capacitance "capable of being determined." *Id.*

[Dr. Huebner] measured a determinable fringeeffect capacitance in the 545L capacitor by using the C=kA/d formula and inputting the actual thickness of the external contact, the actual separation distance, and a lower and upper boundary for what the dielectric constant might be. Accordingly, there was sufficient evidence for the jury to credit Dr. Huebner's opinion and to find that the 545L capacitor had 'fringe-effect capacitance' between the external contacts.

Id. In summary, ATC was ultimately held liable for infringing the '356 patent because the claims were construed to include "fringe-effect capacitance measured through purely theoretical measurements." Pet. App. 15a–16a. Damages were awarded to Presidio in the amount of \$3,362,354 and ATC was enjoined from making, using, selling, or offering for sale the 545L capacitor.

On September 2, 2014, Presidio filed a new complaint for patent infringement against ATC, this time alleging

^{3.} In this formula, C is the capacitance in farads, k is the dielectric constant of the material around the plates, A is the area of each of the contacts or plates, and d is the distance between the plates. *See* Pet. App. 15a.

that ATC's 550 series of capacitors infringed the '356 patent (the "Presidio II" litigation). ATC designed and developed these multilayer ceramic capacitors beginning in 2007. They are manufactured using a different process from the 545L capacitor, have different internal structures than the 545L capacitor, and perform differently than the 545L capacitor. JA 5383–3587. In addition, the spacing between external contacts is much greater in the 550 series capacitors than in the 545L capacitor. For example, the 545L capacitor had a distance or "gap" between external contacts of approximately 1 mil whereas the distance between the external contacts of the 550L capacitor is more than 6 mils. See JA 5385–5366. Regardless of this fact, Presidio once again asserted that these contacts were "sufficiently close . . . to form a first fringe-effect capacitance."

While *Presidio II* was pending, ATC sought *ex parte* reexamination of the claims of the '356 patent. Pet. App. 3a. The examiner rejected, among others, claim 1 based on the application of the C=kA/d formula as testified to by Dr. Huebner in *Presidio I* to new prior art. To overcome this rejection, Presidio amended the last element of claim 1 as follows:

the second contact being located sufficiently close to the first contact <u>in an edge to edge</u> <u>relationship in such proximity as</u> to form a first fringe-effect capacitance with the first contact <u>that is capable of being determined by</u> <u>measurement in terms of a standard unit.</u>

Pet. App. at 12a–13a; JA 359–360. This amendment, as correctly found by the district court and the Federal Circuit, now excludes from the scope of the claims "capacitors with fringe-effect capacitance that could be determined purely through theoretical calculation." Pet. App. 17a. A reexamination certificate with the amended claims, including amended claim 1, issued on December 8, 2015.

On December 22, 2015, Presidio amended its district court complaint in *Presidio II* to allege infringement of amended claims 1, 3, 5, 16, 18, and 19. Pet. App. at 4a. During the jury trial, Presidio's expert, Dr. Huebner (the same expert who had proffered the theoretical calculation in *Presidio I*), testified regarding a novel and complex series of experiments he invented to determine the presence or absence of the last element of amended claim 1. He summarized these new experiments—developed solely for purposes of the litigation—using a demonstrative flowchart, which is reproduced below with annotations. JA 1930.



As illustrated above, Dr. Huebner's test consisted of four separate components: (1) reviewing micrographs, (2) reviewing computer modeling, (3) performing an "orientation sensitivity" experiment, and (4) performing a "dielectric removal" experiment. JA 964–990. Critically, these experiments are disclosed nowhere in the '356 patent. JA 991, JA 1032 ("[I]t doesn't include the test."). Moreover, none of the components of Dr. Huebner's measurement methodology alone can determine whether a capacitor practices has "fringe-effect capacitance ... that is capable of being determined by measurement in terms of a standard unit." JA 966-967, JA 981-982, JA 988–989, JA 990–993. In the end, Dr. Huebner compared and interpreted insertion loss data from his "orientation sensitivity" and "dielectric removal" experiments. JA 1009–1013. After reviewing comparison graphs, he concluded that the unmodified and modified capacitors "behave similarly" on all four sides of the capacitors. JA 901. He claimed this behavior established that "the only thing" that could cause the performance of the accused devices was the "external contacts." JA 896-898. Thus, Dr. Huebner concluded, the contacts must be "sufficiently close . . . to form a first fringe-effect capacitance that is capable of being determined by measurement in terms of a standard unit."

On April 18, 2016, the jury in *Presidio II*, based on Dr. Huebner's testimony, found that ATC's 550 series of capacitors infringed the amended claims of the '356 patent. Thereafter, the district court rejected ATC's defense of indefiniteness. In doing so, it credited Dr. Huebner's testimony that a POSITA "would understand from the '356 patent's disclosure of insertion loss measurements that it is insertion loss measurements that define the scope of

the invention." Pet. App. 41a–42a. The district court made this finding even though nothing in the intrinsic record discloses how to use insertion loss measurements to isolate the claimed fringe-effect capacitance, there is no evidence that anyone outside the context of this litigation has ever used insertion loss measurements to identify when fringeeffect capacitance becomes more than theoretical, and Dr. Huebner characterized the development of his testing methodology as "performing research for the first time." JA 969.

On appeal, the Federal Circuit upheld the district court's definiteness decision. The fulcrum of its holding is that insertion loss testing is a standard method of measurement to determine the overall performance of a capacitor. Pet. App. 7a–8a, 10a–11a. The Federal Circuit, however, expressly acknowledged that insertion loss testing was not a well-known means to measure comparative contributions from different capacitances within the capacitor, e.g., fringe-effect capacitance. Pet. App. 8a. It also recognized that the patent specification does not "describe how to apply the insertion loss method to determine the portion of the overall capacitance that is attributable to the fringe-effect capacitance." Id. It, nonetheless, relied on Dr. Huebner's invention to claim that a POSITA would know how to utilize a standard method of measurement—insertion loss testing—in a new way to isolate the claimed fringe-effect capacitance. It held:

Here, as we have earlier noted, the insertion loss testing method was established and referenced in the patent. Although the specific steps performed by Dr. Huebner had not been published in any industry publications or peerreviewed articles, the general approach of making modification to a capacitor to isolate the impact of discrete capacitance was within the knowledge of someone skilled in the art.

Pet. App. at 10a–11a. Thus, the Federal Circuit held the claims definite based exclusively on the *ipse dixit* of the patentee's expert about a test that was not created until long after the patent issued and that is not described in any materials outside the context of the litigation.

REASONS FOR GRANTING THE PETITION

I. The Federal Circuit's Decision Is Contrary to This Court's Precedent

The Federal Circuit once again has shifted the public-notice function from the patent claims to events and activity occurring years after the patent issued. While the panel opinion cites to this Court's test for indefiniteness from *Nautilus, Inc. v. Biosig Instruments, Inc.*, in fact it applies a standard that reaches far beyond the intrinsic evidence and allows claim scope to depend on the subjective beliefs of one individual. In effect, this case returns both courts and the patent bar "to sea without a reliable compass."

A. The Panel's Decision Enables Patentees to Rely on the Scientific Method to Provide the Public With Clear Notice

The demand for clarity from inventors set forth in 35 U.S.C. § 112 is crucial to maintaining the delicate

balance on which the Patent System depends. As this Court has explained, the patent laws reward innovation with a monopoly. *Festo Corp. v. Shoketsu Kinzoku Kogyu Kabushiki Co.*, 535 U.S. 722, 730–31 (2002).

The monopoly is a property right; and like any property right, its boundaries should be clear. This clarity is essential to promote progress, because it enables efficient investment in innovation.... For this reason, the patent laws require inventors to describe their work in "full, clear, concise, and exact terms," 35 U.S.C. § 112, as part of the delicate balance the law attempts to maintain between inventors, who rely on the promise of the law to bring the invention forth, and the public, which should be encouraged to pursue innovations, creations, and new ideas beyond the inventor's exclusive rights.

Id. The Federal Circuit, too, has recognized "the overriding policy considerations that claims must unambiguously define any invention over the prior art, and provide notice to the public." *In re Packard*, 751 F.3d 1307, 1315 (Fed. Cir. 2014) (Plager, J. concurring) (citing *Brooks v. Fiske*, 56 U.S. 212 (1853)).

To ensure that a patent meets the definiteness requirement, less than five years ago this Court expressly discarded the oft-cited "insolubly ambiguous" and "amendable to construction" phraseology employed by the Federal Circuit. *Nautilus*, 134 S. Ct. at 2124. It characterized this language and the Federal Circuit's prior law on 35 U.S.C. § 112 ¶ 2 as invoking "a standard more amorphous than the statutory requirement [of] definiteness allows." Id. at 2131. Moreover, the Court held that "it cannot be sufficient that a court can ascribe some meaning to a patent's claims; the definiteness inquiry trains on the understanding of a skilled artisan at the time of the patent application, not that a of a court reviewing matters post hoc." Id. at 2130. The Court thus imposed a stricter standard—one consistent with the Patent Act's mandate that patents provide the public with "clear notice." Id. at 2129. That clear notice is not given when a patent's "claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform with reasonable certainty, those skilled in the art about the scope of the invention." Id. at 2124. Put simply, the intrinsic evidence must inform a POSITA about the scope of the invention with "reasonable certainty." Id. at 2129; cf id. at 2128–29 (nothing the rejected "reasonable" notice" standard).

With this case, the Federal Circuit, at best, expands the definition of and, at worst, eliminates the requirement for "reasonable certainty." Whichever it is-expansion or elimination—it swallows the *Nautilus* standard whole. There is no dispute that the '356 patent fails to disclose any test or method for resolving when fringe-effect capacitance between external contacts is determinable by measurement. Without a methodology described in the patent, Dr. Huebner resorts to creating a complex cocktail of procedures that he then combines and interprets. JA 1033. He used insertion loss testing as one piece of the "jigsaw puzzle" needed to determine claim scope. JA 992. At the same time, Dr. Huebner admits that the '356 patent does not describe any of his procedures, including his orientation sensitivity experiment and dielectric removal test. JA 1033. Nor could Dr. Huebner cite to a single industry publication or peer-reviewed article that discussed a method to measure fringe-effect capacitance using either insertion loss or any of the tests he divined. JA 964. Instead, Dr. Huebner claims a POSITA would know how to run trials and pull disparate pieces of data together to understand the claim scope. JA 964, JA 1010.⁴ But Dr. Huebner's unsupported belief—that his methodology developed for purposes of this case could determine whether an accused device falls inside or outside the scope of the claims—cannot satisfy 35 U.S.C. § 112. And the Federal Circuit's holding to the contrary is a direct repudiation of this Court's *Nautilus* holding.

Moreover, the panel here wrongly believes that reference to an established method of measurement alone can rescue a patent from indefiniteness. Consider, for example, the most familiar measurement tool—a ruler. A ruler can be used to determine all kinds of information, e.g., the height of a person. An expert may testify that, after collecting height information and performing a series of novel experiments, a ruler can be used to determine a person's age. This testimony, however credible, does not necessarily lead to the conclusion that a POSITA would understand with reasonable certainty how to calculate age if you gave her a ruler. But that is exactly the conclusion the panel reaches here.

Although Dr. Huebner collected data using insertion loss testing, he applied and interpreted that data in a way that was not described or suggested by the intrinsic

^{4.} Dr. Huebner testified that it would have taken his students—having at least the level of skill of a POSITA—"six months or a year" to develop his methodology. JA 1003, JA 1012.

evidence or corroborated by any scientific or industry publications. JA 969, JA 982, JA 985–992, JA 1002. In fact, there is no evidence that anyone other than Dr. Huebner has made use of insertion loss testing in this way in the history of the Earth. Thus the *only* tie between insertion loss and the claimed fringe-effect capacitance is Dr. Huebner's experiments fashioned in 2015 for this case. Dr. Huebner agrees that he relied on the "scientific method" to claim that a POSITA in 2002 could "figure it out on their own" and "unravel[] this mystery" of claim scope. JA 992–993, JA 1011, JA 1031–1032. But this Court's law on indefiniteness requires that there be no "mystery" to unravel.

At bottom, by relying on an "established measurement method" that is entirely unmoored from the key element in the patent, the panel abandons any requirement that the intrinsic evidence provide guideposts that would enable a POSITA to understand "with reasonable certainty" what falls within and outside the scope of the claims. In its place, is a new standard that allows an expert's application of the scientific method to backfill the void in the intrinsic evidence. This case, therefore, is far-reaching and would enable the "say so" of the patentee's expert to satisfy 35 U.S.C. § 112 in violation of this Court's precedent.

B. The Federal Circuit Has Eradicated the Need for Objective Criteria

Even assuming a POSITA could derive Dr. Huebner's testing procedures from the intrinsic evidence, the panel overlooks that the application of his methodology requires an inherently subjective analysis. In this way, the Federal Circuit tolerates claims for which there is no objective criteria to determine scope. This, too, represents a reversion to pre-*Nautilus* law and a departure from the "reasonable certainty" requirement.

The Federal Circuit previously has acknowledged that a patent is indefinite if its meaning depends "on the unpredictable vagaries of any one person's opinions." Dow Chem. Co. v. Nova Chem. Corp., 803 F.3d 620, 635 (Fed. Cir. 2015). This acknowledgment embraces the notion that the lack of objective criteria to determine claim scope will necessarily give rise to "[a] zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims." Nautilus, 134 S. Ct. at 2129 (quoting United Carbon Co., 317 U.S. at 236). In point of fact, immediately following this Court's Nautilus decision, the Federal Circuit confirmed that this Court requires that "claims, when read in light of the specification and prosecution history, must provide *objective* boundaries those of skill in the art." Interval Licensing, LLC v. AOL, Inc., 766 F.3d 1364, 1371 (Fed. Cir. 2014) (emphasis added).

Here, the existence of the claimed fringe-effect capacitance is not grounded by any objective standards. Rather, it rests upon a POSITA's personal views as to when capacitors "behave similarly" and have "good behavior." As discussed above, Dr. Huebner's ultimate opinion flows from his belief that removing dielectric material from a capacitor has no impact on the capacitor's behavior at four different orientations. Below are his plots of insertion loss data for four sides of both unmodified and modified capacitors.



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Dr. Huebner claims that the modified capacitors remain "orientation insensitive" because the behavior is allegedly similar on all four orientations. But he can make these assertions that the data (especially within the added red circles) shows similar behavior because there are no objective criteria for determining when a capacitor is and is not orientation insensitive. No standards are described in the '356 patent nor otherwise are known in the industry or scientific community. JA 1362. As a result, even if Dr. Huebner's testing procedures were used, a POSITA still would not have reasonable certainty as to the scope of the claims. After performing the experiments, the only way for a POSITA to know whether the capacitors behave similarly, and thus infringe, is to ask Dr. Huebner.

II. This Is the Ideal Case for the Court to Clarify the Role of the Public-Notice Function

This case is a stark example of the result when the "reasonable certainty" standard is satisfied exclusively by the testimony of the patentee's expert. Without any guidance from the intrinsic evidence or support from any scientific or industry publication, the patentee's expert can merely invent a new invention to ascertain claim scope.⁵ If

^{5.} The patentee's expert readily admitted that: "[N]eed is the mother of all invention. There was no need to try to figure this out before this time period because there was no lawsuit." JA 1012–1013.

that expert is qualified and her reasoning is scientifically reliable (i.e., admissible under Federal Rule of Evidence 702), the claims must be definite. As a result, the only way for the public to know "which features may be safely used or manufactured without a license and which may not" is to hire the patentee's expert. *See Permutit Co. v. Graver Corp.*, 284 U.S. 52, 60 (1931). This result is in direct conflict with the principle that indefiniteness is a question of law to be answered based on underlying fact findings. *See Exxon Research and Eng'g Co. v. United States*, 265 F.3d 1371, 1376 (Fed. Cir. 2001).

That the district court and Federal Circuit outsourced to Dr. Huebner the role of deciding the definiteness inquiry is confirmed in two ways. First, both courts relied on statements the patentee made to the PTO in 2015 about insertion loss being the proper method of measurement. Pet. App. 7a-8a, Pet. App. 45a-46a. To be clear, those statements are no more than the opinions of the patentee's expert in *Presidio II*. Dr. Huebner invented for the purpose of this case his novel combination of extensive experiments that employ insertion loss data. After that, the patentee's counsel used those same litigation-driven opinions to stave off an invalidity finding in the co-pending reexamination. JA 2636, JA 2643–2661. Reliance on this evidence alone is a sufficient affront to the public notice function to warrant the attention of this Court. See, e.g., Moleculon Research Corp. v. CBS, Inc., 793 F.2d 1261, 1270 (Fed. Cir. 1986) (papers filed with the PTO during litigation "might very well contain merely self-serving statements which likely would be accorded no more weight than testimony of an interested witness or argument of counsel").

Second, no court has made any independent factfindings to support the conclusion that a POSITA would be able to use a known method of measurement (i.e., insertion loss) to understand the scope of the '356 patent's claims with "reasonable certainty." For example, the district court simply rubber-stamped Dr. Huebner's uncorroborated testimony about what a POSITA would know on at least six separate occasions within its decision to support its definiteness holding. Pet. App. 41a-44a. It also credited Dr. Huebner for its ultimate conclusion: "Importantly, Dr. Huebner testified that the fringe-effect capacitance between the contacts of a capacitor is one of the discrete capacitances that a [POSITA] would be able to determine the specific capacitance of, in terms of the standard unit of Farads." Pet. App. at 44a. The Federal Circuit incorporated these findings into its decision, holding that "at trial, Presidio presented expert testimony by Dr. Huebner that a person of skill in the art would know how to measure fringe-effect capacitance by using insertion loss measurements to measure the overall capacitance [sic], by then removing the dielectric material between the multilayer plates, and by then taking insertion loss measurements to determine the remaining capacitance [sic]." Pet. App. at 8a-9a. In addition to being wrong,⁶ the panel concedes that this information is found nowhere but in the expert's *ex post facto* trial testimony.

At bottom, the holding in this case is that patentees can stake the novelty of their claims on unheard of and untested experiments by hiring an expert to testify that a POSITA could apply the scientific method to divine a way

^{6.} As noted above, *see supra* at 5, it is undisputed that insertion loss measurements do not measure capacitance.

to prove infringement. That same extrinsic evidence—the infringement testimony of the patentee's expert developed more than ten years after the patent was issued—can then act as a proxy for what a POSITA would know about the scope of the claims. Accordingly, this case sponsors the long-prohibited "zone of uncertainty." More than any other since *Nautilus*, it presents the Court with an opportunity to demand that something more than the after-the-fact and uncorroborated testimony of one person can provide a POSITA with "reasonable certainty" about the scope of a patent claims.

III. This Case Will Harm Our Patent System and Quell Legitimate Competition

The impact of this case reaches well beyond the four walls at Presidio and ATC.

In 2015, the Federal Trade Commission and the Department of Justice cautioned the PTO about the chilling effects of uncertainty as to the scope of patents. U.S. Fed. Trade Comm'n and the U.S. Dep't of Justice, In the Matter of Request for Comments on Enhancing Patent Quality, Docket No: PTO-P-2014-0043, U.S. Dep't of Commerce Patent and Trademark Office (2015). They commented:

[U]ncertainty regarding the validity and scope of granted patents can undermine the benefits of the patent system. This uncertainty can impede business planning and deter investments in ventures that may be clouded by the threat of third party patent claims. Uncertainty may impose transaction costs through needless litigation to determine the scope and validity of granted patents. It may raise costs by encouraging manufacturers to take licenses to avoid the risks of infringement of unclear claims. It may also prevent parties from entering into otherwise beneficial license agreements because of an ability to agree on the scope or strength of the patents to be licensed. This uncertainty can distort market behavior, preventing innovation and commercialization of otherwise valuable technologies.

Id. at 3. Thus, concerns about the real-world implications of a patentees' failure to apprise the public with clear notice persist.

Moreover, since 2014, both the Federal Circuit and district courts have wrestled with the Court's "reasonable certainty" standard, causing it to be no less amorphous than the now defunct "insoluably ambiguous" standard. For example, at least one district court has suggested that this Court's *Nautilus* decision is simply directed to the phrasing of the indefiniteness test. See R-Boc *Reps.*, *Inc. v. Minemyer*, 66 F. Supp. 3d 1124, 1127 (N. D. Ill. 2014). In addition, the Federal Circuit has failed to provide district courts with meaningful guidance. See Gary M. Fox, Understanding Nautilus's Reasonable-Certainty Standard: Requirements for Linguistic and *Physical Definiteness of Patent Claims*, 116 Mich. L. Rev. 329, 340–41 (2017). For example, in its decision on remand in Nautilus, the Federal Circuit included the pert comment that it could "now steer by the bright star of 'reasonable certainty' rather than the unreliable compass of 'insoluable ambiguous." Biosig Instruments, Inc. v.

Nautilus, Inc., 783 F.3d 1374, 1378 (Fed. Cir. 2015). It then cited a long string of cases discussing "reasonable certainty" in other contexts. *Id.* at 1380, n.2. But none of this discussion helps illuminate what the Federal Circuit understands "reasonable certainty" to mean or how it intends to apply it. If anything this discussion only sows further confusion.

Finally, as this Court previously acknowledged, "absent a meaningful definiteness check, . . . patent applicants face powerful incentives to inject ambiguity into their claims." *Nautilus*, 134 S. Ct. at 2129. Those incentives continue to exist today. Here, the '356 patent's claim scope is so ill-defined that the same expert articulated two separate tests—including one that he created from whole cloth—in two separate litigations over the course of more than five years. As a result of the claim ambiguity, the patentee has been awarded millions of dollars. In sum, patentees will gladly leave their competitors lost at sea with only the unpredictable results of the scientific method and the "bright star" of *Nautilus*.

CONCLUSION

For the foregoing reasons, this petition for writ of certiorari should be granted.

DATED: April 26, 2018

Respectfully submitted,

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APPENDIX

APPENDIX A — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, DATED NOVEMBER 21, 2017

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

2016-2607, 2016-2650

PRESIDIO COMPONENTS, INC.,

Plaintiff-Cross-Appellant

v.

AMERICAN TECHNICAL CERAMICS CORP.,

Defendant-Appellant

Appeals from the United States District Court for the Southern District of California in No. 3:14-cv-02061-H-BGS, Judge Marilyn L. Huff.

Decided: November 21, 2017

Before Dyk, MOORE, and TARANTO, Circuit Judges.

DYK, Circuit Judge.

Presidio filed suit against American Technical Ceramics Corp. ("ATC") for patent infringement in the District Court for the Southern District of California. After separate jury and bench trials, the district court

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held the asserted claims were infringed and not invalid, and granted a permanent injunction. The district court limited damages due to intervening rights.

We affirm the district court's holdings that the claims are not indefinite and that ATC is entitled to absolute intervening rights because a substantive amendment was made during reexamination. We conclude that the evidence does not support an award of lost profits and, therefore, reverse the award of lost profits and remand for determination of a reasonable royalty. We conclude that the district court did not abuse its discretion in declining to award enhanced damages. We vacate the permanent injunction, and remand for further proceedings with respect to the injunction.

BACKGROUND

Presidio's suit against ATC, filed on September 2, 2014, alleged infringement of U.S. Patent No. 6,816,356 ("the '356 patent"). The '356 patent claims a multilayer capacitor design and teaches a multilayer integrated network of capacitors electrically connected in series and in parallel.

A capacitor is a passive electrical component that stores and releases energy. Generally, a capacitor comprises two parallel metal plates separated by a non-conductive material, known as a dielectric. When a capacitor is connected to a power source, electricity passes through the metal plates, but not through the dielectric material. This causes a positive charge to accumulate
on one plate and a negative charge to accumulate on the other plate. The capacitor will then release the stored energy when the two plates are connected to a conductive path that closes the circuit. The amount of energy that a capacitor can store is called its "capacitance."

Multiple capacitors can be combined to form a multi-layer capacitor. The claimed multilayer capacitor creates capacitance in the dielectric material between the parallel plate combinations. Moreover, when the electrodes of a multilayer capacitor are positioned in an edge-to-edge relationship, they form "fringe-effect" capacitance between the external contacts. "Fringeeffect" capacitance is the energy stored in between external contacts of the multilayer capacitor.

While the district court infringement suit was pending, in 2015, ATC sought an *ex parte* reexamination of the claims of the '356 patent in light of new prior art. The examiner rejected the claims as anticipated and obvious. Presidio amended the claims. The Patent and Trademark Office issued a reexamination certificate for the '356 patent.¹ Amended claim 1 of the '356 patent, the only independent claim asserted by Presidio in this action, is as follows, with the language added during reexamination underscored:

1. A capacitor comprising:

a substantially monolithic dielectric body;

^{1.} The PTO previously issued a reexamination certificate for the '356 patent on September 13, 2011. This reexamination certificate did not alter any of the claims at issue in this case.

a conductive first plate disposed within the dielectric body;

a conductive second plate disposed within the dielectric body and forming a capacitor with the first plate;

a conductive first contact disposed externally on the dielectric body and electrically connected to the first plate; and

a conductive second contact disposed externally on the dielectric body and electrically connected to the second plate, and the second contact being located sufficiently close to the first contact *in an edge to edge relationship in such proximity as* to form a first fringe-effect capacitance with the first contact *that is capable of being determined by measurement in terms of a standard unit.*

U.S. Patent No. 6,816,356 C2, col. 1, ll. 23-36 (Reexamination Certificate filed Dec. 8, 2015).

On December 22, 2015, Presidio amended its district court complaint, alleging infringement of the '356 patent claims 1, 3, 5, 16, 18, and 19 as amended by the reexamination certificate. Presidio alleged that ATC's 550 line of capacitors infringed the asserted claims.

ATC defended, as is relevant for present purposes, that the claims were indefinite; that the reexamination amendment entitled it to intervening rights, limiting damages; and that Presidio was not entitled to lost

profits or enhanced damages. The district court granted ATC's motion for summary judgment on the affirmative defense of absolute intervening rights. The district court then held a jury trial. The jury returned a verdict finding direct infringement and induced infringement of claims 1, 3, 5, 16, 18, and 19 of the '356 patent by all of the accused products—ATC's 550 line of capacitors. In addition, the jury found that Presidio had proven by clear and convincing evidence that ATC's infringement of the asserted claims was willful. The jury awarded Presidio \$2,166,654 in lost profit damages. It did not reach Presidio's claim for a reasonable royalty. The jury also issued an advisory verdict as to indefiniteness, finding that ATC failed to prove by clear and convincing evidence that claim 1 of the '356 patent is indefinite.²

The district court thereafter rejected ATC's contention that the asserted claims of the '356 patent are invalid due to indefiniteness and denied ATC's motion that Presidio had failed as a matter of law to prove lost profits. The district court also denied Presidio's motion for enhanced damages, determining that enhanced damages were not warranted despite a jury finding of willful infringement. The district court then entered a permanent injunction against ATC.

ATC appealed, challenging the district court's determination that the claims were not indefinite, the award of lost profits, and the award of a permanent injunction. Presidio cross-appealed, challenging the

^{2.} Claims 3, 5, 16, 18, and 19 of the '356 patent all depend from claim 1. Thus, all claims in this suit contain the limitation from claim 1 at issue.

district court's determination as to absolute intervening rights and the denial of enhanced damages. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

On October 21, 2016, we granted a partial stay of the injunction until March 17, 2017 with respect to ATC's customers that purchased infringing capacitors before June 17, 2016.

DISCUSSION

Ι

We first address whether the claims are indefinite. 35 U.S.C. § 112 provides that "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." Indefiniteness is a question of law that this court reviews de novo. Teva Pharms. USA, Inc. v. Sandoz, Inc., 789 F.3d 1335, 1341 (Fed. Cir. 2015). Underlying factual findings are reviewed for clear error. UltimatePointer, LLC v. Nintendo Co., 816 F.3d 816, 826 (Fed. Cir. 2016). A patent is indefinite "if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." Nautilus, Inc v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2124, 189 L. Ed. 2d 37 (2014). The definiteness requirement "mandates clarity, while recognizing that absolute precision is unattainable." *Id.* at 2129.

As noted earlier, the claims here cover multilayer capacitors with a fringe-effect capacitance between external contacts that is "capable of being determined by measurement in terms of a standard unit." U.S. Patent No. 6,816,356 C2, col. 1, ll. 35-36 (Reexamination Certificate filed Dec. 8, 2015).

Here, the patent discloses a method of measuring capacitance called insertion loss testing. The patent specification references insertion loss testing as a method to measure the performance of capacitors. Figures 21A and 21B display insertion loss diagrams, which identify insertion loss testing as a method that may be used to measure performance of capacitors. '356 patent, col. 6, ll. 10-15, col. 7, ll. 3-18. Moreover, in the prosecution history during the reexamination, Presidio amended the claims to require fringe effect capacitance capable of being determined "by measurement" and explained that the effects of a capacitance according to the invention "can be shown by measurement, such as is done in the measurements of insertion loss referenced in the patent in Figs. 21A and 21B." J.A. 2654, 2656. The method of insertion loss testing was well-known in the art, and there is no dispute that insertion loss testing can measure the overall performance of a capacitor. Indeed, ATC uses insertion loss testing itself to measure the performance of capacitors when comparing its products to Presidio's products for purposes of determining whether Presidio lost sales to ATC. See infra Part III.

Insertion loss measures how much of a signal is lost when a capacitor is inserted into a circuit. To determine

insertion loss, a network analyzer measures the ratio of the input power to the output power of the capacitor in a circuit, which indicates the efficiency with which the signal passes through the capacitor in the circuit. The measurement unit for insertion loss is decibels, and this measurement is a function of all of the capacitances, resistances, and inductances within the capacitor. Thus, the insertion loss value correlates to the overall capacitance of the capacitor. Although industry standards for insertion loss testing had not been published at the time the patent was filed, Presidio's expert, Dr. Huebner, testified that insertion loss testing had been "well known for many decades" and that a person of ordinary skill could use insertion loss measurements to measure capacitance in terms of Farads, the standard unit of measurement for capacitance. J.A. 1513, 1376-80.

While it was established that insertion loss testing could be used to measure overall performance of capacitors, it was not well known as a method to measure the comparative contributions from different capacitances within the multilayer capacitor. Nor does the patent specification describe how to apply the insertion loss method to determine the portion of the overall capacitance that is attributable to the fringe-effect capacitance.

However, at trial, Presidio presented expert testimony by Dr. Huebner that a person of skill in the art would know how to measure fringe-effect capacitance by using insertion loss measurements to measure the overall capacitance, by then removing the dielectric material between the multilayer plates, and by then taking

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insertion loss measurements to determine the remaining capacitance. Without the dielectric material, the remaining capacitance would necessarily be attributable to the fringe-effect capacitance. Thus, Dr. Huebner testified that a person skilled in the art could measure the impact of fringe-effect capacitance on performance of the capacitor. He also testified that a person skilled in the art would then be able to determine the capacitance in terms of the standard unit of Farads.

Under our post-*Nautilus* cases, a claim is not indefinite if a person of skill in the art would know how to utilize a standard measurement method, such as insertion loss, to make the necessary measurement. A patent need not explicitly include information that is already well known in the art. Nautilus, 134 S. Ct. at 2127; see also Dow Chem. Co. v. Nova Chems. Corp., 809 F.3d 1223, 1225 (Fed. Cir. 2015) (Moore, J., concurring in the denial of the petition for rehearing en banc) (citing Wellman, Inc. v. Eastman Chem. Co., 642 F.3d 1355, 1367 (Fed. Cir. 2011)). "[I]f a skilled person would choose an established method of measurement, that may be sufficient to defeat a claim of indefiniteness, even if that method is not set forth in haec verba in the patent itself." Dow, 809 F.3d at 1224 (Prost, C.J., Dyk & Wallach, JJ., concurring in the denial of the petition for rehearing en banc). For example, in Ethicon Endo-Surgery, Inc. v. Covidien, Inc., 796 F.3d 1312, 1316 (Fed. Cir. 2015), claims covered surgical shears for cutting and sealing blood vessels that required a clamping pressure within a specified range. The specification provided guidance about how to measure the clamping pressure, even though there

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was no industry standard measurement method and the details of the method utilized were not disclosed in the specification. *Id.* at 1317-19. Based on the guidance in the specification, we concluded the disclosure was sufficient to inform skilled artisans as to how clamping pressure should be measured. *Id.* And this is not a situation similar to *Teva Pharmaceuticals USA*, *Inc. v. Sandoz*, *Inc.*, 789 F.3d 1335 (Fed. Cir. 2015) and *Dow Chemical Co. v. Nova Chemicals Corp.*, 803 F.3d 620 (Fed. Cir. 2015), in which the challenger has shown that there were competing existing methodologies that reached different results, and the patent failed to describe which of the multiple methods to use.

Nonetheless, ATC argues that Dr. Huebner's methodology is not an established methodology because insertion loss testing had not previously been applied to measure fringe-effect capacitance, the patent itself provided no guidance as to how to make the measurement, and Dr. Huebner made subjective judgments in developing the test methodology for that purpose. In other words, ATC contends that Dr. Huebner developed a new test methodology rather than using an established test methodology or one for which the patent provided necessary guidance, and that the claims are therefore indefinite.

Even assuming that ATC is correct that an entirely new method could in some circumstances render the claims indefinite, this is not such a situation. Here, as we earlier noted, the insertion loss testing method was well established and referenced in the patent. Although the

specific steps performed by Dr. Huebner had not been published in any industry publications or peer-reviewed articles, the general approach of making modifications to a capacitor to isolate the impact of discrete capacitances was within the knowledge of someone skilled in the art. Based on this record, the district court could properly conclude that such measurement was within the skill of a skilled artisan based on an established method.

Here, the claims do not require that fringe-effect capacitance exist at any particular level; they only require that it be capable of measurement in terms of a standard unit. To be sure, even where the claims require a particular test result, there may be (and often are) disputes between the parties as to the proper application of the test methodology in the circumstances of an individual case. But those disputes are disputes about whether there is infringement, not disputes about whether the patent claims are indefinite. Here, the general approach was sufficiently well established in the art and referenced in the patent to render the claims not indefinite. The claims do not rely on the "unpredictable vagaries of any one person's opinion." Interval Licensing LLC v. AOL, Inc., 766 F.3d 1364, 1371 (Fed. Cir. 2014) (quoting Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1350 (Fed. Cir. 2003)). We affirm the district court's entry of judgment rejecting ATC's indefiniteness challenge.

Π

Next, we address the issue of intervening rights. Presidio cross-appeals the district court's grant of

summary judgment of absolute intervening rights to ATC, which barred damages for the period before December 8, 2015, the date that the reexamination certificate issued.³

An owner of a patent that survives reexamination is not entitled to infringement damages for the time period between the date of issuance of the original claims and the date of issuance of the reexamined claims if the original and amended claims are not "substantially identical." 35 U.S.C. §§ 252, 307(b). In other words, if an amendment during reexamination makes a substantive change to an original claim, the patentee is only entitled to infringement damages for the changed claim for the period following issuance of the reexamination certificate. R+L Carriers, Inc. v. Qualcomm, Inc., 801 F.3d 1346, 1349 (Fed. Cir. 2015); Bloom Eng'g Co. v. N. Am. Mfg. Co., 129 F.3d 1247, 1250 (Fed. Cir. 1997). The district court's assessment of the scope of the original and reexamined claims is reviewed de novo, and any subsidiary factual findings are reviewed for clear error. R+L Carriers, 801 F.3d at 1349-50.

Presidio amended claims of the '356 patent during an *ex parte* reexamination. As noted earlier, Presidio added the following underlined language to claim 1:

the second contact being located sufficiently close to the first contact *in an edge to edge relationship in such proximity as* to form a

^{3.} The district court denied ATC's motion for equitable intervening rights, which has not been appealed.

first fringe-effect capacitance with the first contact that is capable of being determined by measurement in terms of a standard unit.

The district court found that these amendments substantially changed the claim scope and, therefore, ATC was entitled to the defense of absolute intervening rights. In making this determination, the district court compared the scope of the original claims as construed by the district court in a prior lawsuit between the parties, *Presidio I*, with the interpretation of the claims as amended in the reexamination. *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, 723 F. Supp. 2d 1284 (S.D. Cal. 2010).

Presidio argues that the scope of its claims did not change during reexamination because its stated goal in amending the claims was to adopt the district court's construction in *Presidio I*. During reexamination, Presidio stated it was making the amendment "to incorporate and make explicit the interpretation of the independent claims that was established in [the *Presidio I*] litigation." J.A. 128. However, the patentee's intent in making the amendment is not determinative or controlling in determining claim scope. Slimfold Mfg. Co. v. Kinkead Indus., Inc., 810 F.2d 1113, 1116 (Fed. Cir. 1987). As we have explained, "[u]nder the statute and our prior case law, it is irrelevant *why* an amended claim is narrowed during reexamination, or even whether the patentee intended to narrow the claim in a particular way." R+L Carriers, 801 F.3d at 1350 (emphasis in original).

Instead, the relevant inquiry is whether the scope of the amended claims is actually identical to the scope of

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the original claims based on normal claim construction analysis, articulated in our en banc *Phillips* decision. See Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005) (en banc). To determine whether an amended claim is narrower in scope, "we determine whether there is any product or process that would infringe the original claim, but not infringe the amended claim." R+L Carriers, 801 F.3d at 1350. Typically, we need to determine de novo the scope of the original and amended claims. Both parties here appear to agree that the scope of the original claims is determined by the construction of the claims in *Presidio* I, apparently as a matter of collateral estoppel. See Hydranautics v. FilmTec Corp., 204 F.3d 880, 885 (9th Cir. 2000) (explaining that collateral estoppel applies when an issue is identical to one necessarily decided in a previous proceeding, the first proceeding ended in a final judgment on the merits, and the party against whom collateral estoppel is asserted was a party in the first proceeding); see also Aspex Eyewear, Inc. v. Zenni Optical Inc., 713 F.3d 1377, 1380 (Fed. Cir. 2013) (explaining that the Federal Circuit applies the law of the circuit in which the district court sits for collateral estoppel). Thus, necessary to a determination of the scope of the original claims is an understanding of the district court's claim construction in Presidio I.

Presidio I was an infringement suit against ATC for the '356 patent, filed on February 21, 2008. In *Presidio* I, Chief Judge Gonzalez construed the claims to require fringe-effect capacitance "that is capable of being determined in terms of a standard unit." J.A. 5243. In this respect, the original and amended claims are the

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same, as both require fringe-effect capacitance that is capable of being determined in terms of a standard unit. But in other respects, the *Presidio I* construction and the amended claims are materially different. This is so because under the claim construction of the original claims, fringe-effect capacitance could be determined by theoretical calculations that are insufficient under the amended claims.

During the *Presidio I* trial, Dr. Huebner's testimony that ATC's products infringed used a purely theoretical calculation of fringe-effect capacitance. Dr. Huebner took measurements of dimensions and used a formula, C=kA/d,⁴ to determine capacitance rather than measuring capacitance with actual instruments, as done in insertion loss testing. Chief Judge Gonzalez affirmed the jury finding of infringement based on this purely theoretical measurement, noting that Dr. Huebner:

measured a determinable fringe-effect capacitance in the 545L capacitor by using the C=kA/d formula and inputting the actual thickness of the external contact, the actual separation distance, and a lower and upper boundary for what the dielectric constant might be. Accordingly, there was sufficient evidence for the jury to credit Dr. Huebner's opinion and to find that the 545L capacitor

^{4.} In the formula C=kA/d, C is the capacitance in farads, k is the dielectric constant of the insulating material between the plates, A is the area of each of the opposed plates in square meters, and d is the separation distance between the plates.

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had a 'fringe-effect capacitance' between the external contacts.

J.A. 5303. Therefore, the district court concluded that the scope of the original claims included fringe-effect capacitance measured through purely theoretical measurements.⁵

The amended claims have a different scope. During the reexamination, the examiner rejected the original claims in light of a prior art reference that disclosed a capacitor arrangement where the fringe-effect capacitance of the arrangement could be determined using C=kA/d—the same theoretical calculation method used by Presidio's expert in *Presidio I* to opine on infringement. Presidio then amended the claims to overcome this rejection. The amendment added the words "by measurement." When Presidio submitted the proposed amendments, it stated that the amended claim language excludes determinations of fringe-effect capacitance that "rel[y] entirely upon theoretical calculation" and argued that the rejections should be withdrawn because the prior art disclosed only an arrangement where fringe-effect capacitance could be determined "by way of theoretical computations" and not actual measurement. J.A. 128, 137. The patentee explained that "determinable" includes "only what is practically

^{5.} Presidio repeatedly and inaccurately states that Chief Judge Gonzalez held that the original claims did not include "theoretically calculated fringe-effect capacitance." Presidio Br. 29, 37, 66, 70, 72; Presidio Reply Br. 1, 3, 7, 12. In fact, Chief Judge Gonzalez only held that the claims exclude fringe-effect capacitance that is merely "negligible." J.A. 5334.

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measurable, not merely what is theoretical or simulated." J.A. 2659. Based on this explanation, the amended claims were allowed. Whether viewed as a disclaimer or as evidence relevant to the proper claim construction, it is clear that the amended claims exclude capacitors with fringe-effect capacitance that could be determined purely through theoretical calculation.

Therefore, there was a substantive change in claim scope. Under the scope of the original claims, theoretical calculations are sufficient to satisfy the claim limitations. Under the amendment claims, they are not. Based on this substantive change in claim scope, the district court properly granted the affirmative defense of absolute intervening rights.

III

The third issue is whether the district court correctly awarded lost profits. The district court held that the jury verdict awarding lost profits was supported by substantial evidence and denied judgment as a matter of law. The question is whether Presidio established its right to recover lost profits for its sales of the BB capacitors, which Presidio claimed were adversely affected by the sale of ATC's infringing 550 line of capacitors.

To recover lost profits, the patentee bears the burden of proof to show a "reasonable probability that, 'but for' infringement, it would have made the sales that were made by the infringer." *Crystal Seminconductor Corp. v. TriTech Microelecs. Int'l, Inc.*, 246 F.3d 1336, 1353 (Fed.

Cir. 2001); BIC Leisure Prods, Inc. v. Windsurfing, Int'l, Inc., 1 F.3d 1214, 1218 (Fed. Cir. 1993). "But-for" causation can be proven using the test given in *Panduit Corp. v.* Stahlin Bros. Fibre Works, Inc., 575 F.2d 1152 (6th Cir. 1978). See Versata Software, Inc. v. SAP Am., Inc., 717 F.3d 1255, 1264 (Fed. Cir. 2013). The four-factor *Panduit* test requires the patentee to show: (1) demand for the patented product; (2) an absence of acceptable, noninfringing substitutes; (3) manufacturing and marketing capability to exploit the demand; and (4) the amount of profit that would have been made. *Panduit*, 575 F.2d at 1156. Presidio did not and does not seek to establish an entitlement to lost profits other than through the *Panduit* framework.

We review the denial of judgment as a matter of law de novo, and we uphold the jury verdict if supported by substantial evidence. *Callicrate v. Wadsworth Mfg., Inc.*, 427 F.3d 1361, 1366 (Fed. Cir. 2005). A patentee can recover lost profits even if its product does not practice the claimed invention, where the product directly competes with the infringing device. *Presidio Components v. Am. Tech. Ceramics*, 702 F.3d 1351, 1360 (Fed. Cir. 2012). Although the BB capacitor does not practice the '356 patent, Presidio could still recover lost profits because the BB capacitor competes directly with the infringing 550 capacitors.

ATC argues that the district court erred by finding that substantial evidence supported that Presidio had satisfied the second prong of *Panduit* analysis—the absence of an acceptable, non-infringing alternative. To prove the absence of acceptable, non-infringing alternatives, the

patentee may prove either that the potential alternative was not acceptable to potential customers or was not available at the time. *Grain-Processing Corp. v. Am. Maize-Prod. Co.*, 185 F.3d 1341, 1353-55 (Fed. Cir. 1999).

At the time of infringement, ATC sold two types of capacitors: the 550 series capacitors, which were found to infringe, and the 560L capacitor, which was never accused of infringement. The district court found that sufficient evidence supported the jury's finding that the 560L capacitor was not an acceptable and available substitute.

As to the "acceptable substitute" question, the district court stated that "ATC's own witness testified that the 560 capacitors are not as good as the 550 capacitors," and concluded that "the 560L [capacitor] was not an acceptable, noninfringing alternative." J.A. 82. On appeal, Presidio argues that "the 560L product did not perform as well as the infringing 550 capacitor." Presidio Br. 56-57.

The district court's analysis and Presidio's argument were flawed. The correct inquiry under *Panduit* is whether a non-infringing alternative would be acceptable compared to the patent owner's product, not whether it is a substitute for the infringing product. "The 'but for' inquiry therefore requires a reconstruction of the market, as it would have developed absent the infringing product, to determine what [sales] the patentee 'would ... have made." *Grain Processing*, 185 F.3d at 1350. The district court erred by relying on evidence about sales of the 560L capacitor in competition with the currently infringing product, rather than comparing the 560L

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capacitor to Presidio's BB capacitor in a hypothetical market without the infringing 550 capacitor. There was not substantial evidence in the record upon which a jury could conclude that the 560L was not an acceptable, noninfringing alternative for Presidio's BB capacitors. Undisputed evidence showed that the 560L capacitor was less expensive than Presidio's BB capacitor and also had lower insertion loss for at least some frequencies, which indicates better performance.

On the question of availability, the district court determined that sufficient evidence supported the finding that the 560L capacitor was not an available substitute because unlike the infringing 550 capacitors, ATC sold the 560L capacitor only to a single customer and did not list it on its website. An alternative does not need to be on the market to be available. Grain Processing, 185 F.3d at 1356. But here, the alternative was on the market. The undisputed evidence shows ATC sold 88,000 560L capacitors to the customer. The fact that ATC only sold the 560L capacitor to a single customer does not establish that it was unavailable. Moreover, the fact that the 560L capacitor was not widely advertised when sold in a market with the 550 capacitor does not show a lack of availability. In a hypothetical market including the 550 capacitors, ATC may have chosen not to advertise the 560L capacitor. However.

[w]ithout the infringing product, a rational would-beinfringer is likely to offer an acceptable, noninfringing alternative, if available, to compete with the patent owner rather than

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leave the market altogether. The competitor in the "but for" marketplace is hardly likely to surrender its complete market share when faced with a patent, if it can compete in some other lawful manner.

Id. at 1351. The patentee failed to establish the 560L capacitor was not an available substitute.

In summary, Presidio failed to provide evidence that the 560L capacitor was either not an acceptable or available substitute to Presidio's BB capacitor. We reverse the denial of judgment as a matter of law. The jury's award of lost profits is set aside; Presidio is only entitled to receive a reasonable royalty award. Because the jury instructions and verdict form only directed the jury to consider a reasonable royalty award if Presidio had not proven it was entitled to lost profits, the jury did not return a finding about a reasonable royalty rate. Under these circumstances, a new trial is needed to determine the reasonable royalty award.⁶

IV

Next, we address the issue of enhanced damages. The jury found that ATC willfully infringed the '356 patent, and the district court denied judgment as a matter of law of no willful infringement. Despite the jury finding of willfulness, the district court declined to award enhanced

^{6.} It may be that the parties agree that 25 cents per unit is the appropriate reasonable royalty rate, rendering a new trial unnecessary. J.A. 1094, 1116, 1477-78.

damages. We review the determination not to award enhanced damages for abuse of discretion. *WBIP*, *LLC* v. Kohler, Co., 829 F.3d 1317, 1339 (Fed. Cir. 2016) (citing Halo Elecs., Inc. v. Pulse Elecs., Inc., 136 S. Ct. 1923, 1934, 195 L. Ed. 2d 278 (2016)).

In patent infringement cases, district courts have discretion to "increase damages up to three times the amount found or assessed." 35 U.S.C. § 284; *Halo*, 136 S. Ct. at 1931. Enhanced damages are generally only appropriate in egregious cases of misconduct, such as willful, wanton, or malicious behavior. *Halo*, 136 S. Ct. at 1932. But an award of enhanced damages does not necessarily flow from a willfulness finding. *Id.*; *WBIP*, 829 F.3d at 1341 n.13. Discretion remains with the court to determine whether the conduct is sufficiently egregious to warrant enhanced damages. *WBIP*, 829 F.3d at 1341 n.13. In determining whether enhanced damages are appropriate, courts should consider the overall circumstances of the case. *Halo*, 136 S. Ct. at 1933.

The district court here appropriately analyzed ATC's culpability only during the period beginning when the reexamination certificate issued on December 8, 2015. The district court noted that at that point, ATC and Presidio were already involved in the present litigation, and ATC had been selling the 550 capacitors for almost six years without a finding of infringement. At that point, ATC had received the district court's claim construction order and developed defense theories. Additionally, ATC had just succeeded in causing Presidio to narrow the scope of its claims during reexamination proceedings

instituted by ATC. The district court further noted that ATC's invalidity defense at trial was not meritless, though ultimately rejected by the jury. Therefore, the district court concluded that the present case was a "garden-variety" hard-fought patent case, rather than an egregious case of misconduct, and declined to award enhanced damages. J.A. 98-99.

Presidio argues that the district court erred as a matter of law by failing to explicitly address each of the *Read* factors set forth in our decision in *Read* as relevant to an award of enhanced damages. See Read Corp. v. Portec, Inc., 970 F.2d 816 (Fed. Cir. 1992), abrogated in part on other grounds by Markman v. Westview Instruments, Inc., 517 U.S. 370, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996). However, the district court is not required to discuss the *Read* factors. When the Supreme Court articulated the current controlling test for decisions to award enhanced damages, it did not require the *Read* factors as part of the analysis. Halo, 136 S. Ct. at 1935; see Georgetown Rail Equip. v. Holland L.P., 867 F.3d 1229, 1244 (Fed. Cir. 2017) (describing the Read factors as "non-exclusive").⁷ The *Halo* test merely requires the district court to consider the particular circumstances of the case to determine whether it is egregious. Here, the district court considered the particular circumstances of

^{7.} Moreover, even before the *Halo* decision, explicit discussion of the *Read* factors was not mandatory. *See, e.g., Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1371 (Fed. Cir. 2004) (affirming a district court award of enhanced damages where the district court did not discuss the *Read* factors for enhanced damages).

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the case and determined the situation was not sufficiently egregious to warrant enhanced damages. The district court did not abuse its discretion in declining to award enhanced damages.

V

Lastly, the district court issued a permanent injunction, which enjoined ATC from selling any 550 capacitors. We review the district court's grant of an injunction for abuse of discretion. *eBay Inc. v. MercExchange*, *LLC*, 547 U.S. 388, 391, 126 S. Ct. 1837, 164 L. Ed. 2d 641 (2006). A district court abuses its discretion when it makes "a clear error of judgment in weighing relevant factors or exercise[s] its discretion based upon an error of law or clearly erroneous factual findings." *Innogenetics*, *N.V. v. Abbott Labs.*, 512 F.3d 1363, 1379 (Fed. Cir. 2008).

A permanent injunction may be entered against an infringer where the patentee can prove: (1) it has suffered an irreparable injury; (2) legal remedies, such as money damages, are inadequate to compensate for that injury; (3) the balance of hardships between the plaintiff and defendant warrants an injunction; and (4) the public interest would not be disserved by an injunction. *eBay*, 547 U.S. at 391. We review the district court's conclusion as to each *eBay* factor for abuse of discretion and its underlying factual findings for clear error. *i*4*i* Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 861 (Fed. Cir. 2010). Here, the focus is whether Presidio has established irreparable injury.

To prove irreparable injury, a patentee must show "1) that absent an injunction, it will suffer irreparable harm,

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and 2) that a sufficiently strong casual nexus relates the alleged harm to the alleged infringement." *Apple Inc. v. Samsung Elecs. Co.*, 695 F.3d 1370, 1374 (Fed. Cir. 2012). To determine whether the patentee will suffer irreparable harm absent an injunction, the court may consider factors such as the nature of competition between the patentee and the infringer, the willingness of a patentee to license, and any lost sales the patentee has proven. *Douglas Dynamics, LLC v. Buyers Prods. Co.*, 717 F.3d 1336, 1344-45 (Fed. Cir. 2013); *Presidio*, 702 F.3d at 1363-64; *Robert Bosch LLC v. Pylon Mfg Corp.*, 659 F.3d 1142, 1152-55 (Fed. Cir. 2011).

Where irreparable injury is based on lost sales, "a likelihood of irreparable harm cannot be shown if sales would be lost regardless of the infringing conduct." Apple Inc. v. Samsung Elecs. Co., 678 F.3d 1314, 1324 (Fed. Cir. 2012). Here, the district court correctly pointed out that a jury award of lost profits may support a finding of irreparable harm because it necessarily results in a finding that the patentee lost sales and would continue to lose sales in the future. *Presidio*, 702 F.3d at 1363. The district court then based its conclusion as to irreparable injury on the jury's lost profits award. The district court reasoned that "[t]he jury's lost profits award also supports a finding of irreparable injury" because "the jury necessarily found ATC's [550] capacitor sales caused Presidio to lose BB capacitor sales." J.A. 87. In light of our reversal of the lost profits award for lack of proof of past lost sales, we must vacate the injunction.

However, we do not decide whether this should be the end of the matter. The district court has discretion

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to determine whether other evidence could support a finding of irreparable injury. In this respect, on remand, the district court should reopen the record and consider current evidence of irreparable harm. Since March 17, 2017, the injunction against ATC from selling 550 capacitors has been in effect. Based on the arguments and evidence presented to this court, it appears that this injunction may have created the hypothetical market necessary to determine whether consumers would purchase Presidio's BB capacitors in the absence of ATC's 550 series capacitors. On remand, the district court should consider whether consumers have turned to noninfringing alternatives to the BB capacitor, such as the 560L capacitor, after the 550 series capacitors became unavailable or whether Presidio's sales of the BB capacitor have increased because the 550 series is no longer on the market. Based on this further evidence and other relevant evidence, the district court should determine whether Presidio has established irreparable injury and the appropriateness of an injunction.

CONCLUSION

We affirm the district court's finding of definiteness, grant of absolute intervening rights, and denial of enhanced damages. We reverse the award of lost profits because Presidio failed to show the absence of an acceptable, non-infringing substitute. On remand, the damages award should be limited to a reasonable royalty, and a new trial should be conducted as necessary to determine the reasonable royalty rate. We vacate the permanent injunction, and remand with instructions to

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consider the relevant evidence and to determine whether Presidio has established irreparable injury.

AFFIRMED IN PART, REVERSED IN PART, VACATED IN PART, AND REMANDED

Costs

No costs.

APPENDIX B — JUDGMENT OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, FILED NOVEMBER 21, 2017

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

OPINION FILED AND JUDGMENT ENTERED: 11/21/2017

NOTICE OF ENTRY OF JUDGMENT ACCOMPANIED BY OPINION

The attached opinion announcing the judgment of the court in your case was filed and judgment was entered on the date indicated above. The mandate will be issued in due course.

Information is also provided about petitions for rehearing and suggestions for rehearing en *banc*. The questions and answers are those frequently asked and answered by the Clerk's Office.

No costs were taxed in this appeal.

Regarding exhibits and visual aids: Your attention is directed Fed. R. App. P. 34(g) which states that the clerk may destroy or dispose of the exhibits if counsel does not rec laim them within a reasonable time after the clerk gives notice to remove them. (The clerk deems a reasonable time to be 15 days from the date the final mandate is issued.)

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FOR THE COURT /s/ Peter R. Marksteiner Peter R. Marksteiner Clerk of Court

APPENDIX C — OPINION OF THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF CALIFORNIA, FILED JUNE 17, 2016

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF CALIFORNIA

Case No.: 14-cv-02061-H-BGS

PRESIDIO COMPONENTS, INC.,

Plaintiff,

v.

AMERICAN TECHNICAL CERAMICS CORP.,

Defendant.

June 17, 2016, Decided; June 17, 2016, Filed

ORDER:

(1) DENYING WITHOUT PREJUDICE DEFENDANT'S MOTION FOR JUDGMENT AS A MATTER OF LAW

[Doc. No. 307.]

(2) DENYING DEFENDANT'S MOTION FOR ENTRY OF JUDGMENT OF INDEFINITENESS

[Doc. No. 341.]

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(3) DENYING DEFENDANT'S MOTION FOR ENTRY OF JUDGMENT ON ITS EQUITABLE DEFENSES OF INTERVENING RIGHTS, ESTOPPEL, AND LACHES

[Doc. No. 344.]

(4) DENYING DEFENDANT'S MOTION FOR A FINDING OF NO WILLFUL INFRINGEMENT

[Doc. No. 343.]

(5) MEMORANDUM DECISION IN FAVOR OF PLAINTIFF ON ISSUES TRIED TO THE COURT

On May 13, 2016, Defendant American Technical Ceramics Corp. filed: (1) a motion for the entry of judgment in its favor on its affirmative defense and counterclaim that the asserted claims of the '356 patent are invalid due to indefiniteness; (2) a motion for the entry of judgment in its favor on its equitable affirmative defenses of equitable intervening rights, equitable estoppel, and laches; and (3) a motion for a finding by the Court of no willful infringement. (Doc. Nos. 341, 343, 344.) On June 6, 2016, Plaintiff Presidio Components, Inc. filed responses in opposition to the three motions. (Doc. Nos. 353, 354, 356.) On June 13, 2016, ATC filed its replies. (Doc. Nos. 360, 361, 364.)

The Court held a hearing on the matters on June 17, 2016. Gregory Ahrens and Brett Schatz appeared for Presidio. Peter Snell and Ronald Cahill appeared

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for ATC. For the reasons below, the Court: (1) denies without prejudice ATC's Federal Rule of Civil Procedure 50(a) motion for judgment as a matter of law; (2) denies ATC's motion for the entry of judgment in its favor on its affirmative defense and counterclaim that the asserted claims of the '356 patent are invalid due to indefiniteness; (3) denies ATC's motion for the entry of judgment in its favor on its equitable affirmative defenses of equitable intervening rights, equitable estoppel, and laches; (4) denies ATC's motion for a finding by the Court of no willful infringement; (5) issues a memorandum decision in favor of Presidio on the issues tried to the Court.

Background

On September 2, 2014, Presidio filed a complaint for patent infringement against ATC, alleging infringement of U.S. Patent No. 6,816,356 ("the '356 patent"). (Doc. No. 1, Compl.) The '356 patent is entitled "Integrated Broadband Ceramic Capacitor Array." U.S. Patent No. 6,816,356 B2, at 1:1-2 (filed Apr. 14, 2003). The patent issued on November 9, 2004 and claimed priority to an application filed on May 17, 2002. See id. (See Doc. No. 276-3 ¶ 4; Doc. No. 356-1 at 5.)

A capacitor is a passive electrical component that stores and releases energy and is used in a variety of electrical devices. *Presidio Components, Inc. v. American Technical Ceramics Corp.*, 702 F.3d 1351, 1355 (Fed. Cir. 2012). Generally, a capacitor comprises two parallel metal plates separated by a non-conductive material such as ceramic or air, known as a dielectric. *Id.* When a capacitor

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is connected to a power source, electricity passes through the metal plates, but not the dielectric, causing a positive charge to accumulate on one plate and a negative charge on the other. *Id.* "The capacitor may release this stored energy by connecting the two plates through a conductive path that closes the circuit." *Id.* "The amount of energy a capacitor can store is its 'capacitance."" *Id.*

Multiple capacitors may be combined to create a "multilayer capacitor." *Id.* A multilayer capacitor is made of several layers of conductive and non-conductive materials stacked together. *Id.* Each layer in the multilayer capacitor has its own electrical properties affecting the overall performance of the capacitor. *Id.*

The '356 patent claims a multilayer capacitor design and teaches a multilayer integrated network of capacitors electrically connected in series and in parallel. *Id.; Presidio Components, Inc. v. American Technical Ceramics Corp.*, 723 F. Supp. 2d 1284, 1289 (S.D. Cal. 2010), vacated on other grounds, 702 F.3d 1351 (Fed. Cir. 2012). This network of capacitors is disposed within a "substantially monolithic dielectric body," as shown below in Figure 10A. *Presidio*, 702 F.3d at 1355. The claimed multilayer capacitor creates capacitance between internal parallel plate combinations 10 and 11 while simultaneously creating fringe-effect capacitance between external contacts 72 and 74. *Id*.



On December 8, 2015, the United States Patent and Trademark Office issued a reexamination certificate for the '356 patent, amending certain claims of the patent.¹ (Doc. No. 170-2, FAC Ex. 2.) Amended claim 1 of the '356 patent, the only independent claim asserted by Presidio in this action, is as follows:

1. A capacitor comprising:

a substantially monolithic dielectric body;

a conductive first plate disposed within the dielectric body;

^{1.} The PTO previously issued a reexamination certificate for the '356 patent on September 13, 2011. (Doc. No. 170-1, FAC Ex. 1.) This reexamination certificate did not alter any of the claims at issue in the present action. (*Id.*)

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a conductive second plate disposed within the dielectric body and forming a capacitor with the first plate;

a conductive first contact disposed externally on the dielectric body and electrically connected to the first plate; and

a conductive second contact disposed externally on the dielectric body and electrically connected to the second plate, and the second contact being located sufficiently close to the first contact in an edge to edge relationship in such proximity as to form a first fringe-effect capacitance with the first contact that is capable of being determined by measurement in terms of a standard unit.

U.S. Patent No. 6,816,356 C2, at 1:23-36 (Reexamination Certificate filed Dec. 8, 2015) (emphasis removed from original). The claims in the reexamination certificate were amended in order to overcome a final rejection by the examiner, rejecting the claims at issue as anticipated by the AVX MLC Catalog reference, and in the alternative, as obvious over the AVX MLC Catalog reference in view of the Ceramic Capacitor Technology reference. (*See* Doc. No. 212-2, Slonim Decl. Exs. 1, 2, 8, 11.)

On December 22, 2015, Presidio filed a first amended complaint, alleging infringement of the '356 patent as amended by the reexamination certificate. (Doc. No. 170, FAC.) Specifically, Presidio alleged that ATC's 550 line of capacitors infringes claims 1, 3, 5, 16, 18, and 19 of

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the '356 patent. (*Id.* ¶ 26.) On December 22, 2015, ATC filed a second amended answer and counterclaims to the first amended complaint, adding an affirmative defense of absolute and equitable intervening rights and an affirmative defense and counterclaim of unenforceability due to inequitable conduct. (Doc. No. 171.)

On January 12, 2016, the Court denied Presidio's motions for: (1) summary judgment of definiteness; (2) summary judgment of infringement; (3) summary judgment of ATC's equitable affirmative defenses; and (4) summary judgment of no acceptable non-infringing alternatives. (Doc. No. 210.) In the order, the Court also denied ATC's motions for: (1) partial summary judgment of non-infringement; (2) summary judgment of indefiniteness; and (3) summary judgment of no willful infringement. (Id.) On February 10, 2016, the Court granted ATC's motion for summary judgment of its affirmative defense of absolute intervening rights and held that Presidio is entitled to infringement damages only for the time period following the issuance of the reexamination certificate on December 8, 2015. (Doc. No. 234 at 28.) In that order, the Court also dismissed with prejudice ATC's affirmative defense and counterclaim that the '356 patent is unenforceable due to inequitable conduct. (Id. at 33.)

The Court held a jury trial beginning on April 5, 2016. (Doc. No. 297.) During the trial, on April 8, 2016, ATC filed a motion for judgment as a matter of law pursuant to Federal Rule of Civil Procedure 50(a). (Doc. No. 307.) On April 18, 2016, the jury returned a verdict finding direct

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infringement and induced infringement of claims 1, 3, 5, 16, 18, and 19 of the '356 patent by ATC as to all of the accused products in the action: the 550L, the 550S, the 550U, and the 550Z capacitors. (Doc. No. 328 at 2-3.) In addition, the jury found that Presidio had proven by clear and convincing evidence that ATC's infringement of the asserted claims was willful. (*Id.* at 4.) The jury awarded Presidio \$2,166,654 in lost profit damages. (*Id.*) The jury also issued an advisory verdict as to indefiniteness and found that ATC had failed to prove by clear and convincing evidence that claim 1 of the '356 patent is indefinite.² (*Id.* at 5.)

By the present motions, ATC moves for the entry of judgment in its favor on the following issues: (1) ATC's affirmative defense and counterclaim of invalidity of the asserted claims of the '356 patent due to indefiniteness; (2) ATC's affirmative defense of equitable intervening rights; (3) ATC's affirmative defense of equitable estoppel; and (4) ATC's affirmative defense of laches. (Doc. Nos. 341-2, 349.) In addition, ATC moves for a finding by the Court of no willful infringement. (Doc. No. 343-1.)

^{2.} The verdict form initially had the "Yes" box marked in response to question No. 6 "Has ATC proved by clear and convincing evidence that claim 1 of the '356 patent is indefinite?" (Doc. No. 328 at 5.) During the reading of the verdict in open court, the jurors agreed that checking the "Yes" box in response to question No. 6 was a clerical error and then amended the verdict form to reflect that the "No" box should be checked. (*See id.*; Doc. No. 333 at 8-11)

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Discussion

I. Rule 50(a) Motion for Judgment as a Matter of Law

During the trial, on April 8, 2016, ATC filed a Rule 50(a) motion for judgment as a matter of law. (Doc. No. 307.) The Court denies the motion without prejudice to ATC filing a renewed motion under Federal Rule of Civil Procedure 50(b) on appropriate issues. *See* Fed. R. Civ. P. 50(b).

II. Indefiniteness

ATC moves for the entry of judgment in its favor on its affirmative defense and counterclaim that all of the asserted claims of the '356 patent are invalid due to indefiniteness. (Doc. No. 341-2 at 1-2.) Section 112 of the Patent Act requires that a patent's specification "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as [the] invention." 35 U.S.C. § 112, ¶ 2. In Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2124, 189 L. Ed. 2d 37 (2014), the Supreme Court "h[e]ld that a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." See also id. at 2129 ("[W]e read 112, ¶ 2 to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty."). Definiteness is measured from
the viewpoint of a PHOSITA at the time the patent was filed — here, May 17, 2002.³ *Id.* at 2128.

The Supreme Court explained that indefiniteness under section 112 requires a "delicate balance." *Id.* at 2128. "The definiteness standard 'must allow for a modicum of uncertainty' to provide incentives for innovation, but must also require 'clear notice of what is claimed, thereby appris[ing] the public of what is still open to them." *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370 (Fed. Cir. 2014) (quoting *Nautilus*, 134 S. Ct. at 2128, 2129). Thus, the definiteness requirement "mandates clarity, while recognizing that absolute precision is unattainable." *Nautilus*, 134 S. Ct. at 2129.

Indefiniteness is a question of law involving underlying factual determinations. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1341 (Fed. Cir. 2015); *Green Edge Enters., LLC v. Rubber Mulch Etc., LLC*, 620 F.3d 1287, 1299 (Fed. Cir. 2010); *see also Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837-38, 190 L. Ed. 2d 719 (2015) (explaining that sometimes claim construction issues involve underlying factual disputes). The party challenging the validity of the patent-in-suit bears the

^{3.} The parties agreed that May 17, 2002 is the proper date for assessing indefiniteness. (See Doc. No. 356-1 at 5-6.) Further, the parties agreed that the level of ordinary skill in the art of the '356 patent is medium. (Doc. No. 276-3 ¶ 9; Doc. No. 327 at 59.) The ordinary artisan would hold a Masters or similar degree, or the experiential equivalent thereof, in Electrical Engineering or a similar field, and would have at least two years of industry experience in designing multilayer capacitors. (*Id.*)

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burden of proving indefiniteness by clear and convincing evidence. *See Nautilus*, 134 S. Ct. at 2130 n.10 (citing *Microsoft Corp. v. i4i Microsoft Corp.*, 564 U.S. 91, 131 S. Ct. 2238, 2242, 180 L. Ed. 2d 131 (2011)); *see, e.g., Teva*, 789 F.3d at 1345.

ATC, as the party challenging the validity of the asserted claims of the '356 patent, bears the burden of providing indefiniteness by clear and convincing evidence. See id. ATC argues that the asserted claims are indefinite based on the following claim language contained in claim 1 of the '356 patent: "the second contact being located sufficiently close to the first contact in an edge to edge relationship in such proximity as to form a first fringeeffect capacitance with the first contact that is capable of being determined by measurement in terms of a standard unit."⁴ (Doc. No. 341-2 at 4-5 (quoting '356 Patent Dec. 8, 2016 Reexamination Certificate at 1:31-36).) Specifically, ATC argues that this claim language renders the asserted claims indefinite because the intrinsic record of the '356 patent does not disclose with reasonable certainty how to measure whether the external contacts of a multilayer capacitor are sufficiently close to form the claimed fringeeffect capacitance that is capable of being determined by measurement in terms of a standard unit. (Id. at 1-2.) In response, Presidio argues that the claims are definite because the '356 patent discloses to a PHOSITA how to evaluate whether the fringe-effect capacitance between

^{4.} Claims 3, 5, 16, 18, and 19 of the '356 patent are also asserted in this action. (Doc. No. 170, FAC \P 26.) These claims are all dependent to claim 1 and, thus, also contain the above claim limitation. *See* '356 Patent at 13:9, 13:26, 14:1, 14:9, 14:13.

the external contacts of a capacitor is capable of being determined in terms of a standard unit. (Doc. No. 356 at 7.) The Court agrees with Presidio.

The specification of the '356 patent shows the use of insertion loss measurements in Figures 21A and 21B:



'356 Patent at figs. 21A, 21B, 6:10-15, 7:3-18. (Doc. No. 306, Trial Tr. Vol. III at 160-61 170, 178; Doc. No. 331, Trial Tr. Vol. V at 87.) Presidio's expert, Dr. Huebner, testified that insertion loss measurements are well known to a PHOSITA and are known to be the output of a network analyzer.⁵ (Doc. No. 305, Trial Tr. Vol. II at 237; Doc. No. 306, Trial Tr. Vol. III at 117-18, 131, 152-53, 178; see also

^{5.} ATC's own expert, Dr. Schaper, testified that a PHOSITA is able to understand the insertion loss curves disclosed in these figures. (Doc. No. 331, Trial Tr. Vol. V at 87.)

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Doc. No. 153-1 (ATC describing insertion loss testing as "a conventional test").) A network analyzer is able to measure the performance of a multilayer capacitor. (Doc. No. 306, Trial Tr. Vol. III at 169; Doc. No. 330, Trial Tr. Vol. IV at 169-72.) Dr. Huebner further testified that a PHOSITA would understand from the '356 patent's disclosure of insertion loss measurements that it is insertion loss measurements that it is insertion loss measurements that define the scope of the patent. (Doc. No. 306, Trial Tr. Vol. III at 162; Doc. No. 331, Trial Tr. Vol. V at 195.) Indeed, the prosecution history of the patent explains that insertion loss measurements as referenced in figures 21A and 21B of the patent are the proper method of measurement for showing the effects of the capacitance formed according to the invention. (Doc. No. 212-2, Slonim Decl. Ex. 2 at 12.)

Further, the parties' experts agreed that fringe-effect capacitance is well known in the art and always exists between the external contacts of a capacitor. (Doc. No. 305, Trial Tr. Vol. II at 261; Doc. No. 306, Trial Tr. Vol. III at 151; Doc. No. 331, Trial Tr. Vol. V at 78.) In figures 9A and 10A of the '356 patent and the associated descriptions in the specification, the patent teaches that external electrodes can be brought into proximity to one another to add to the fringe-effect capacitance of the capacitor and have an impact on the insertion loss performance of the capacitor. *See* '356 patent at 7:46-56, figs. 9A, 10A. (Doc. No. 331, Trial Tr. Vol. V at 191-94; Doc. No. 306, Trial Tr. Vol. III at 162-63.) Figures 9A and 10A are provided below:





Dr. Huebner testified that a PHOSITA would be able to make a capacitor, make modifications to a capacitor, identify each of those modifications in an equivalent circuit identifying discrete capacitances, and measure the performance of the capacitor. (Doc. No. 331, Trial Tr. Vol. V at 189-90; Doc. No. 306, Trial Tr. Vol. III at 156-57.) Further, a PHOSITA would know how to make modifications to the capacitor to isolate discrete features of the capacitor, such as discrete capacitances including the fringe-effect capacitance. (Doc. No. 331, Trial Tr. Vol. V at 155-57, 189-90.) A PHOSITA would be able to measure the performance of the capacitor and confirm the impact of those discrete capacitances through and on insertion loss measurements. (Id. at 146, 155-57, 189-191, 194.) A PHOSITA would know, based on the impact of a discrete capacitance on the measurements, how to translate those measurements into an equivalent circuit diagram that includes that discrete capacitance. (Id. at 190-91, 192-93.) A PHOSITA would then be able to determine the capacitance, in terms of the standard unit of Farads,

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of each of those discrete capacitances as distinguished from the entire capacitor. (*Id.* at 189-90.) Indeed, ATC's own expert testified that if certain things were changed in a capacitor, a PHOSITA would be able to measure the effect on the capacitor's total capacitance caused by that change. (Doc. No. 330, Trial Tr. Vol. IV at 156; *see also id.* at 176-77 (testimony from Mr. Anderson, an employee of non-party Keysight Technologies, Inc., explaining that a network analyzer could be used to imply that a change had been made in a multilayer ceramic capacitor.)

Importantly, Dr. Huebner testified that the fringeeffect capacitance between the external contacts of a capacitor is one of the discrete capacitances that a PHOSITA would be able to determine the specific capacitance of, in terms of the standard unit of Farads.⁶ (Doc. No. 306, Trial Tr. Vol. III at 177-78; Doc. No. 331, Trial Tr. Vol. V at 141-42, 192-93; see also Doc. No. 306, Trial Tr. Vol. III at 39-64.) Thus, a PHOSITA would know the necessary measurements to make on a multilayer capacitor to evaluate and conclude whether the capacitor does or does not have a fringe-effect capacitance that is capable of being determined by measurement in terms of a standard unit. (Doc. No. 306, Trial Tr. Vol III at 156-58.) Accordingly, a PHOSITA would be able to use a network analyzer and determine whether a particular capacitor falls inside or outside the scope of claim 1 of the '356 patent. (*Id.* at 199.)

^{6.} Dr. Huebner specifically testified that a PHOSITA would have been able to make this determination as of 2002. (Doc. No. 306, Trial Tr. Vol. III at 180.)

The Court finds Dr. Huebner's testimony credible. In particular, the Court notes Dr. Huebner's extensive experience with multilayer ceramic capacitors, including his over 35 years of analyzing, researching, measuring, designing, and building such capacitors.⁷ (Doc. No. 305, Trial Tr. Vol. II at 241; *see also id.* at 216-18, 224-33.) The Court concludes, based on the evidence presented at trial, that the intrinsic record of the '356 patent discloses to a PHOSITA how to evaluate whether the fringe-effect capacitance between the external contacts of a capacitor is capable of being determined in terms of a standard unit. Accordingly, the asserted claims, when read in light of the intrinsic record, inform a PHOSITA about the scope of the claims with reasonable certainty.

ATC argues that the intrinsic record does not disclose how to measure fringe-effect capacitance between a capacitor's external contacts. (Doc. No. 341-2 at 4-9.) ATC is incorrect. The specification of the '356 patent discloses the use of insertion loss measurements. *See* '356 Patent at figs. 21A, 21B, 6:10-15, 7:3-18. Further, the prosecution history explains that insertion loss measurements as

^{7.} ATC's expert, Dr. Schaper, testified that the '356 patent does disclose when the claimed fringe-effect capacitance would exist. (Doc. No. 331 Trial Tr. Vol. V at 39, 43, 95-96.) The Court does not find ATC's expert credible on this issue in light of Dr. Huebner's conflicting testimony, which the Court does find credible. The Court notes that Dr. Schaper has not been engaged with multilayer ceramic capacitors for over a decade, and he testified that most of his experience involved working with capacitors that were not multilayer ceramic capacitors. (*Id.* at 75, 79-80.) In addition, Dr. Schaper testified that he never attempted to isolate the capacitances of discrete features in a capacitors. (*Id.* at 76-77.)

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referenced in figures 21A and 21B are the proper method of measurement for showing the effects of the capacitance formed according to the invention. (Doc. No. 212-2, Slonim Decl. Ex. 2 at 12.) Thus, the intrinsic record discloses the relevant method of measurement. To the extent, ATC contends that the intrinsic record fails to disclose the precise methods of measurement utilized by Dr. Huebner is this case to measure fringe-effect capacitance, such extreme detail is not required by Nautilus. Cf. 134 S. Ct. at 2129 (explaining that the definiteness requirement "mandates clarity, while recognizing that absolute precision is unattainable"). *Nautilus* simply requires that the claims, when read in light of the intrinsic record, inform a PHOSITA about the scope of the invention with reasonable certainty. Id. at 2124, 2129. Dr. Huebner credibly testified that in light of the disclosures contained in the intrinsic record of the '356 patent regarding insertion loss measurements, a PHOSITA would be able to determine whether the fringe-effect capacitance between the external contacts of a capacitor is capable of being determined in terms of a standard unit. This satisfies the Nautilus standard.

Further, the Court does not find persuasive ATC's reliance on the Federal Circuit's recent decisions in *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335 (Fed. Cir. 2015) and *Dow Chem. Co. v. Nova Chemicals Corp. (Canada)*, 803 F.3d 620 (Fed. Cir. 2015). (Doc. No. 341-2 at 9-12.) Teva and *Dow* both involved a situation where the parties agreed that the claim term at issue could refer to any one of several different types of measurements and that each method of measurement produced different

results. *See Teva*, 789 F.3d at 1341; *Dow*, 803 F.3d at 633-34. In each of those cases, the Federal Circuit found the claims at issue indefinite because the intrinsic record failed to disclose which of the methods should be used. *See Teva*, 789 F.3d at 1342-45; *Dow*, 803 F.3d at 634-35. In contrast, here, there is only one method of measurement disclosed in the intrinsic record of the '356 patent — insertion loss measurements. ATC does not argue that there are other methods of measurement that could potentially be used to determine the scope of the '356 patent.⁸

In addition, the Court rejects ATC's contention that in order to satisfy section 112's definiteness requirement, the claim language of the '356 patent needs to have had a "presumed meaning" in the art as of the patent's filing date. (Doc. No. 341-2 at 16-24.) Nowhere in *Nautilus, Teva*, or *Dow* does the court ever hold that claim language must have a "presumed meaning" in the art as of the patent's filing date in order to satisfy section 112's definiteness requirement. Rather, the standard for determining indefiniteness remains the standard set forth in *Nautilus:*

^{8.} In an effort to show that there are different tests for determining the scope of the asserted claims, ATC points to the fact that Dr. Huebner utilized a different test in the prior litigation. (Doc. No. 341-2 at 24-25.) But this fact is of no consequence because, as ATC itself has argued and the Court accepted in its absolute intervening rights ruling, the amendments to the asserted claims during the reexamination proceedings that resulted in the December 8, 2015 reexamination certificate substantively changed the scope of the claims — specifically, in regard to the claim language at issue here. (Doc. No. 234 at 28.) Thus, Dr. Huebner's testimony in the prior litigation related to claims that were different in scope from the claims asserted in this action.

that in order to satisfy 112's definiteness requirement, the claims, when viewed in light of the intrinsic record, must inform a PHOSITA about the scope of the invention with reasonable certainty. 134 S. Ct. at 2124, 2129. The evidence presented at trial showed that that this standard has been met here. Moreover, both fringe-effect capacitance and insertion loss measurements were well known to and understood by a PHOSITA as of the relevant date. (Doc. No. 306, Trial Tr. Vol. III at 151-53; Doc. No. 331, Trial Tr. Vol. V at 78, 87.)

The Court also rejects ATC's argument that the claims are indefinite because there is no set way to configure a network analyzer and different configurations could produce different results. (Doc. No. 341-2 at 21-24.) Even assuming it is true that different configurations produce different results, ATC has failed to show that such differences are material to the Court's analysis. The asserted claims do not require that the fringe-effect be determinable to a specific numerical value or range of values. Rather, claim 1 only requires that the fringeeffect capacitance "is capable of being determined by measurement in terms of a standard unit." '356 Patent Dec. 8, 2016 Reexamination Certificate at 1:35-36. ATC has not shown that different test results would affect whether the capacitance is capable of being determined in terms of a standard unit.

Finally, ATC also argues that the '356 patent is indefinite because interpreting insertion loss data from a network analyzer, in combination with other information, is entirely subjective. (Doc. No. 341-2 at 12-16.) The Court

disagrees. The insertion loss measurements disclosed in the patent and utilized by Dr. Huebner provided an objective standard for determining the scope of the asserted claims. That a PHOSITA would need to interpret some of the data during the process does not render the measurements entirely subjective.

Moreover, in concluding that ATC has failed to prove indefiniteness by clear and convincing evidence, the Court notes that the asserted claims in their current form following amendment were all found to be patentable by the examiner at the conclusion of the ex parte reexamination proceedings that resulted in the issuance of the December 8, 2015 reexamination certificate. See '356 Patent Dec. 8, 2016 Reexamination Certificate. 37 C.F.R. § 1.552(a) provides: "Claims in an exparte reexamination proceeding will be examined on the basis of patents or printed publications and, with respect to subject matter added or deleted in the reexamination proceeding, on the basis of the requirements of 35 U.S.C. 112." (See also Doc. No. 305, Trial Tr. Vol. II at 178-79, 184-85.) The precise claim language that ATC contends renders the asserted claims indefinite is the same claim language that was at issue and was specifically amended during the reexamination proceedings. (See Doc. No. 212-2, Slonim Decl. Exs. 1, 2, 8, 11.) Therefore, under § 1.552(a), the examiner evaluated that claim language on the basis of the requirements in § 112, including definiteness, and found the amended claims patentable. Notably, the examiner found the amended claims patentable in late 2015, well after the Supreme Court issued its decision in *Nautilus* in June 2014. Further, the Court also notes that the jury

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in this action rendered an advisory opinion finding that ATC failed to prove by clear and convincing evidence that claim 1 of the '356 patent is indefinite.⁹ (Doc. No. 328 at 5.) Although the jury's advisory verdict is not binding on the Court, *see Am. Calcar, Inc. v. Am. Honda Motor Co.*, 651 F.3d 1318, 1333-34 (Fed. Cir. 2011), the Court notes that the jury resolved the factual disputes between the parties with respect to indefiniteness in Presidio's favor.

In sum, ATC has failed to show by clear and convincing evidence that the asserted claims of the '356 patent are indefinite. Accordingly, the Court denies ATC's motion for the entry of judgment its favor on its affirmative defense and counterclaim that all of the asserted claims of the '356 patent are invalid due to indefiniteness.

III. Equitable Intervening Rights

ATC moves for the entry of judgment in its favor on its affirmative defense of equitable intervening rights. (Doc. No. 349 at 2-17.) The doctrine of intervening rights was developed by courts to remedy the potential injustice "where a third party, having already begun to make, use, or sell a given article, finds its previously lawful activities rendered newly infringing under a modified patent." *Marine Polymer Techs., Inc. v. HemCon, Inc.*, 672 F.3d 1350, 1361 (Fed. Cir. 2012) (en banc). In such situations, the accused infringer should be deemed to have "acquired at least a right to continue to use the [articles] as if it held a

^{9.} The Court properly instructed the jury as to the legal standard for indefiniteness under *Nautilus*. (Doc. No. 327 at 57-58.)

license therefor under the reissued patent." *Id.* (quoting *Sontag Chain Stores Co. v. Nat'l Nut Co.*, 310 U.S. 281, 294-95, 60 S. Ct. 961, 84 L. Ed. 1204, 1941 Dec. Comm'r Pat. 781 (1940)). There are two types of intervening rights: "(1) intervening rights that abrogate liability for infringing claims added to or modified from the original patent if the accused products were made or used before the reissue, often referred to as absolute intervening rights; and (2) intervening rights that apply as a matter of judicial discretion to mitigate liability for infringing such claims even as to products made or used after the reissue if the accused infringer made substantial preparations for the infringing activities prior to reissue, often referred to as equitable intervening rights." *Marine Polymer*, 672 F.3d at 1361-62 (citing 35 U.S.C. § 252).

The Federal Circuit has explained that when a patent emerges from a reexamination proceeding, any "amended or new" claims in the reexamined patent are potentially susceptible to intervening rights. Marine Polymer, 672 F.3d at 1362 (citing 35 U.S.C. §§ 307(b), 316(b)); see also id. at 1363 ("[O]nly 'amended or new' claims incorporated into a patent during reexamination ... will be susceptible to intervening rights."). But intervening rights only accrue where a substantive change has been made to the scope of the claims during the reexamination. See id. at 1362; R+L Carriers, Inc. v. Qualcomm, Inc., 801 F.3d 1346, 1349 (Fed. Cir. 2015). Intervening rights do not apply where "the original and the reexamined claims are 'substantially identical." R+L Carriers, 801 F.3d at 1349. In granting ATC's motion for summary judgment of its affirmative defense of absolute intervening rights, the Court held

that the amendments contained in the December 8, 2015 reexamination certificate narrowed the scope of the asserted claims, and, therefore, a substantive change was made to the original claims during the reexamination, making intervening rights applicable in the present case. (Doc. No. 234 at 28.)

In determining whether to grant equitable intervening rights to a party, a court "may consider various factors" including:

(1) whether "substantial preparation" was made by the infringer before the reissue; (2) whether the infringer continued manufacturing before reissue on advice of its patent counsel; (3) whether there were existing orders or contracts; (4) whether non-infringing goods can be manufactured from the inventory used to manufacture the infringing product and the cost of conversion; (5) whether there is a long period of sales and operations before the patent reissued from which no damages can be assessed; and (6) whether the infringer has made profits sufficient to recoup its investment.

Visto Corp. v. Sproqit Techs., Inc., 413 F. Supp. 2d 1073, 1090 (N.D. Cal. 2006) (citing Seattle Box Co. v. Industrial Crating & Packing, Inc., 756 F.2d 1574, 1579 (Fed. Cir. 1985)); accord 2-Way Computing, Inc. v. Sprint Nextel Corp., No. 2:11-CV-12 JCM PAL, 2014 U.S. Dist. LEXIS 87741, 2014 WL 2960455, at *5-6 (D. Nev. June 27, 2014). Further, "[t]he court may consider other factors, such as

the relative degrees of good or bad faith exercised by the parties." *2-Way Computing*, 2014 U.S. Dist. LEXIS 87741, 2014 WL 2960455, at *5; *see Shockley v. Arcan, Inc.*, 248 F.3d 1349, 1361 (Fed. Cir. 2001).

In determining whether to grant equitable intervening rights, "the court must consider whether to use its broad equity powers to fashion an appropriate remedy." *Seattle Box*, 756 F.2d at 1579. The ultimate decision of whether to grant equitable intervening rights is committed to the discretion of the district court. *See Shockley*, 248 F.3d at 1361; *see also A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1028 (Fed. Cir. 1992) (en banc) (explaining that equitable defenses are committed to the sound discretion of the trial judge).

In evaluating the above factors, the Court recognizes that some of the factors weigh in favor of ATC. At the time the reexamination certificate issued, ATC had made preparations and investments into the research, development, marketing, and sales of the 550 line of capacitors. (See Doc. No. 349-1, Slavitt Decl. ¶¶ 12-20.) ATC also had existing orders and contracts for the 550 capacitors at that time. (See Doc. No. 349-1, Slavitt Decl. ¶ 24; Doc. No. 349-4, Slonim Decl. Ex. 9 at 7.) In addition, prior to issuance of the reexamination certificate, ATC had relied on the non-infringement and invalidity position taken by counsel in this litigation. (See Doc. No. 349-1, Slavitt Decl. ¶ 23.)

But other factors weigh against the Court granting ATC equitable intervening rights in this action that the

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Court finds compelling. First, ATC experienced a long period of sales and operations for the accused products prior to the issuance of the reexamination certificate a period of almost six years — which resulted in over \$17 million in revenue and for which no damages can be assessed.¹⁰ (See Doc. No. 276-3 ¶ 3; Doc. No. 349-1, Slavitt Decl. ¶¶ 2, 12, 24; Doc. No. 349-2, Slonim Decl. Ex. 2 at 12.) Second, ATC asserts that it has not made profits sufficient to recoup its investment into the 550 series of capacitors, (see Doc. No. 349 at 3-6; 363 at 5-6), but ATC has failed to provide the Court with sufficient evidence to prove this assertion. Importantly, ATC has failed to identify what profits it has generated from the accused products. See Revolution Eyewear, 2008 U.S. Dist. LEXIS 108672, 2008 WL 6873811, at *8 (finding that this factor weighs against granting equitable intervening rights where the defendant has failed to provide evidence showing its profits). ATC simply points to various costs it has purportedly incurred and notes the revenue it has generated from the 550 capacitors. (Doc. No. 349 at 3-6; Doc. No. 349-2, Slonim Decl. Ex. 2 at 12.) Third, ATC asserts that the existing inventory of 550 capacitors cannot be repurposed for noninfringing goods, but ATC has failed to provide Court with sufficient credible evidence supporting this assertion. Finally, the Court finds relevant and significant the fact that the parties are direct competitors and have been for

^{10.} The Court agrees with Presidio that, contrary to ATC's assertion, a long period of sales and operations from which no damages can be assessed weighs against, not in favor of, granting equitable intervening rights. *See Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.*, No. CV02-01087VAPCWX, 2008 U.S. Dist. LEXIS 108672, 2008 WL 6873811, at *8 (C.D. Cal. Jan. 3, 2008).

many years. Accordingly, balancing the equities in the present case and exercising its sound discretion, the Court declines to grant ATC equitable intervening rights.

In addition, the Court declines to grant ATC equitable intervening rights because the jury found that ATC's infringement in the present case was willful.¹¹ See Shockley, 248 F.3d at 1361 (explaining that a finding of willful infringement is sufficient by itself to support a decision to deny a defendant equitable intervening rights). Accordingly, the Court denies ATC's motion for the entry of judgment in its favor on its affirmative defense of equitable intervening rights.

IV. Equitable Estoppel

ATC moves for the entry of judgment in its favor on its affirmative defense of equitable estoppel. (Doc. No. 349 at 18-26.) To prove the affirmative defense of equitable estoppel, a defendant must show: "(1) the patentee, through misleading conduct, led the alleged infringer to reasonably believe that the patentee did not intend to enforce its patent against the infringer; (2) the

^{11.} ATC argues that the Supreme Court's recent decision in decision in *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, No. 14-1513, 579 U.S., 136 S. Ct. 1923, 195 L. Ed. 2d 278, 2016 U.S. LEXIS 3776 (2016) rendered the jury's finding of subjective willfulness void. (Doc. No. 363 at 1.) The Court disagrees. Nowhere in *Halo* does the Supreme Court hold that a jury may not make a finding as to subjective willfulness. *See infra*. Accordingly, the jury's finding of willful infringement by ATC remains a valid basis for denying ATC's equitable intervening rights affirmative defense.

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alleged infringer relied on that conduct; and (3) due to its reliance, the alleged infringer would be materially prejudiced if the patentee were permitted to proceed with its charge of infringement." Aspex Eyewear, 605 F.3d at 1310; accord A.C. Aukerman, 960 F.2d at 1028. "Misleading 'conduct' may include specific statements, action, inaction, or silence when there was an obligation to speak." Aspex Eyewear, 605 F.3d at 1310. Material prejudice supporting an equitable estoppel defense "may be a change of economic position or loss of evidence." A.C. Aukerman, 960 F.2d at 1043.

Equitable estoppel must be proven by a preponderance of the evidence. A.C. Aukerman, 960 F.2d at 1046. Whether the defendant has established the required elements of its equitable estoppel defense is a question of fact. See SCA Hygiene Products Aktiebolag v. First Quality Baby Products, LLC, 767 F.3d 1339, 1344 (Fed. Cir. 2014), cert. granted on other grounds, 136 S. Ct. 1824, 194 L. Ed. 2d 829 (2016); see also Hemstreet, 972 F.2d at 1292 (explaining that the defense of equitable estoppel "ultimately turn[s] on underlying factual determinations"). However, the ultimate decision of whether to bar a claim of patent infringement under equitable estoppel is committed to the sound discretion of the trial court. A.C. Aukerman, 960 F.2d at 1041; see also id. ("[E]quitable estoppel is not limited to a particular factual situation nor subject to resolution by simple or hard and fast rules.").

The Court concludes that ATC has failed to establish the first element of its equitable estoppel defense — that Presidio, through misleading conduct, led the ATC to

reasonably believe that it did not intend to enforce the '356 patent against the 550 capacitors. In an effort to satisfy this element of the test, ATC relies on two specific actions taken by Presidio. But neither action could have reasonably led one to believe that Presidio did not intend to enforce the '356 patent against ATC's 550 capacitors.

First, ATC relies on settlement negotiations that occurred between the parties in late 2009. During the negotiations, a proposed settlement agreement was drafted containing a covenant not to sue for the 550L capacitors and "Permitted Capacitors." (Doc. No. 349-13, Slonim Decl. Ex. 20 at § 5.) The proposed agreement provided that "a capacitor will not be deemed a Permitted Capacitor if it incorporates a gap width between external electrodes or external plates of less than 7 mils, with a +/-2 mil tolerance. (*Id.*) ATC concedes that the proposed settlement agreement was never executed by the parties. (Doc. No. 349 at 20.) Nevertheless, ATC argues that although the proposed agreement was never executed, it could reasonably rely on the above provisions to believe that Presidio would not assert the '356 patent against the 550 capacitors because the settlement negotiations between the parties purportedly broke down due to a different issue. (*Id.* at 19-21.) The Court disagrees.

It is not reasonable for a party in contract negotiations to attempt to rely on terms contained in a proposed agreement when the contract was never executed and no agreement between the parties was ever reached. Because the proposed settlement agreement was never executed by the parties, Presidio was not bound by any

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of the terms in the proposed agreement, including the proposed covenant not to sue. Because Presidio was not bound by the proposed covenant not to sue, Presidio did not engage in misleading conduct when it filed the present action alleging infringement of the '356 patent by ATC's 550 capacitors. Moreover, because no binding agreement was reached, it was unreasonable for ATC to rely on any of the terms contained in the proposed covenant not to sue regardless of the specific reasons why the agreement was never executed. Cf. Goodyear Tire & Rubber Co. v. Chiles Power Supply, Inc., 332 F.3d 976, 981 (6th Cir. 2003) (noting "the inherent questionability of the truthfulness of any statements made" during settlement negotiations). Accordingly, the evidence related to the late 2009 settlement negotiations is insufficient to satisfy the first element of ATC's equitable estoppel defense.¹²

^{12.} In addition, the Court does not find persuasive ATC's reliance on testimony from Mr. Slavitt stating that during the negotiations, "Presidio conceded that the 550 was not an infringing product." (Doc. No. 349 at 20 (citing Doc. No. 349-3, Slonim Decl. Ex. 3 at 28).) Mr. Slavitt qualified this statement and explained that it was based on his own understanding of what he thought was being represented during the settlement negotiations. (Doc. No. 349-3, Slonim Decl. Ex. 3 at 28-29.) Further, Mr. Slavitt conceded that he was not directly involved in the settlement discussions at issue and that Presidio and its counsel never made any direct representations to him on this issue. (Id. at 29-30.) Accordingly, the Court gives Mr. Slavitt's testimony no weight. Moreover, Mr. Devoe states that he was involved in the 2009 settlement negotiations and at no time during the settlement negotiations did Presidio take the position that the 550 capacitors do not infringe the '356 patent. (Doc. No. 353-4, Devoe Decl. ¶¶ 10-12.)

Second, ATC relies on Presidio's request for an accounting of the sales of the 550 series of capacitors during the prior litigation. In the request, Presidio stated that it was its understanding that ATC did not contend that the design changes made to the 545L capacitor the accused product in the prior litigation — to arrive at the 550L capacitor took the 550L outside the scope of the ongoing royalty in that case. (Doc. No. 349-15, Slonim Decl. Ex. 22.) In ATC's response to Presidio's request for an accounting, ATC argued that the 550L capacitor was "an entirely new, independent design" that was not within the scope of the ongoing royalties in that case and denied Presidio's request. (Doc. No. 349-16, Slonim Decl. Ex. 23.) ATC asserts that Presidio never responded to its letter. (Doc. No. 349 at 21.) ATC argues that Presidio's four years of silence after ATC's refusal to provide an accounting for the 550L capacitors reasonably led ATC to believe that Presidio would not accuse the 550 series of capacitors of infringing the '356 patent. (Id. at 22.) The Court disagrees.

It was unreasonable for ATC to infer from this correspondence that Presidio would not accuse the 550 capacitors of infringing the '356 patent. Nowhere in the correspondence does Presidio state that the 550 capacitors are non-infringing products or that it does not intend to assert its patents against the 550 capacitors. Further, nowhere in the correspondence does ATC itself assert that the 550L capacitor is a non-infringing product.¹³ Rather,

^{13.} That the parties' correspondence contained no specific discussion about whether the 550L capacitor infringed the '356 patent renders the present case distinguishable from *Aspex Eyewear Inc.*

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ATC merely asserted that the product was outside the scope of the ongoing royalty in the prior litigation. (Doc. No. 349-16, Slonim Decl. Ex. 23.) Therefore, at best, ATC could only reasonably infer from this correspondence that Presidio was not disputing ATC's contention that the 550 capacitors were outside the scope of the royalty in the prior action. That the products were outside the scope of the royalty in the prior action because they were a new, independent design does not necessary mean that the products do not infringe the '356 patent. Accordingly, ATC has failed to establish that Presidio engaged in any misleading conduct or that it was reasonable for ATC to believe that the 550 capacitors were non-infringing products based on any of Presidio's actions.

In sum, ATC has failed to establish the first element of its equitable estoppel affirmative defense. In addition, the Court notes that ATC's evidence as to the second element of its defense is very weak as it consists of a single conclusory statement from its in-house counsel,

v. Clariti Eyewear, Inc., 605 F.3d 1305 (Fed. Cir. 2010). In Aspex, the plaintiff issued a threat of a suit for patent infringement against the defendant, and the defendant responded by stating that it did not believe that its products infringed any of the claims of the patents at issue, which was then followed by three years of silence by the plaintiff. See id. at 1308-11. In contrast, here, there was no threat of a suit for patent infringement by Presidio, and there was no response from ATC asserting that its 550 capacitor is a non-infringing product.

At the hearing, ATC contended that in November 2009, it went to Presidio with the 550 capacitor and asserted that it was a noninfringing product. But ATC has failed to point to any evidence in the record showing that this interaction occurred.

Mr. Slavitt, stating that ATC relied on Presidio's conduct in deciding to expand the 550 product line. (*See* Doc. No. 349 at 22-23 (citing Doc. No. 349-3, Slonim Decl. Ex. 3).) Accordingly, exercising its sound discretion, the Court denies ATC's motion for the entry of judgment in its favor on its affirmative defense of equitable estoppel.

V. Laches

ATC moves for the entry of judgment in its favor on its affirmative defense of laches. (Doc. No. 349 at 26-28.) To prevail on a defense of laches in a patent case, a defendant must prove: (1) that the patentee delayed filing suit for an unreasonable and inexcusable length of time from the time it knew or reasonably should have known of its claim against the defendant, and (2) the delay operated to the prejudice or injury of the defendant.¹⁴ A.C. Aukerman, 960 F.2d at 1032. The defense of laches, if proven, bars the recovery of damages accrued prior to the filing of suit. See id. at 1040-41; Odetics, Inc. v. Storage Tech. Corp., 185 F.3d 1259, 1272 (Fed. Cir. 1999). It does not bar the recovery of post-filing damages. See Aukerman, 960 F.2d at 1040.

^{14.} The Court notes that the Supreme Court recently granted a petition for writ of certiorari on the following issue: "Whether and to what extent the defense of laches may bar a claim for patent infringement brought within the Patent Act's six-year statutory limitations period, 35 U.S.C. § 286." *SCA Hygiene Prods. Aktiebolag* v. First Quality Baby Prods., LLC, 807 F.3d 1311 (Fed. Cir. 2015) (en banc), cert granted, 136 S. Ct. 1824, 194 L. Ed. 2d 829, 2016 U.S. LEXIS 2971, 2016 WL 309607, at *1 (U.S. 2016).

In its motion, ATC concedes that the Court's order granting summary judgment of ATC's affirmative defense of absolute intervening rights renders its laches defense moot.¹⁵ (Doc. No. 349 at 26 n.2.) In granting ATC's motion for summary judgment of its affirmative defense of absolute intervening rights, the Court held that Presidio is entitled to infringement damages only for the time period following the issuance of the December 8, 2015 reexamination certificate. (Doc. No. 234 at 28.) Because after that ruling, there are no pre-suit damages at issue in the case, ATC's affirmative defense of laches is moot. *Cf. A.C. Aukerman*, 960 F.2d at 1040-41. Accordingly, the Court denies as moot ATC's motion for the entry of judgment in its favor on its affirmative defense of laches.

VI. Willful Infringement

ATC moves for a finding of no willful infringement. (Doc. No. 343-1.) 35 U.S.C. § 284 allows a court to enhance a prevailing plaintiff's damage award "up to three times the amount found or assessed." 35 U.S.C. § 284.

At the time the jury rendered its verdict, the Federal Circuit had held "that an award of enhanced damages [under section 284] requires a showing of willful infringement." *In re Seagate Tech.*, *LLC*, 497 F.3d 1360, 1368 (Fed. Cir. 2007) (en banc).

^{15.} ATC clarifies that although its laches defense is moot, it is presenting facts and arguments regarding its laches defense to preserve the defense in the event that the Court's absolute intervening rights ruling is reversed. (Doc. No. 349 at 26 n.13.)

To establish willful infringement, the patentee has the burden of showing "by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent." "The state of mind of the accused infringer is not relevant to this objective inquiry." Only if the patentee establishes this "threshold objective standard" does the inquiry then move on to whether "this objectively-defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer."

Bard Peripheral Vascular, Inc. v. W.L. Gore & Associates, Inc., 776 F.3d 837, 844 (Fed. Cir. 2015) (quoting Seagate, 497 F.3d at 1371). The Federal Circuit further held that the objective prong of the willfulness test is to be decided by the Court as a matter of law; while the subjective prong of the test is a question of fact. See Bard Peripheral Vascular, Inc. v. W.L. Gore & Associates, Inc., 682 F.3d 1003, 1006-08 (Fed. Cir. 2012).

On June 13, 2016, the Supreme Court issued its decision in *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, No. 14-1513, 579 U.S., 2016 U.S. LEXIS 3776 (June 13, 2016). In *Halo*, the Supreme Court rejected the Federal Circuit's two-part test from *Seagate* for determining when a district court may award enhanced damages as inconsistent with § 284. 2016 U.S. LEXIS 3776 at *7. The Supreme Court explained that § 284 commits the award of enhanced

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damages to the discretion of the district court. See 2016 U.S. LEXIS 3776 at *11, *14-15, *22. The Supreme Court further explained that the Seagate test is "unduly rigid" and "impermissibly encumbers" a district court's discretion, particularly its requirement that there must be a finding of objective recklessness in every case before a district court may award enhanced damages. 2016 U.S. LEXIS 3776 at *15. "The subjective willfulness of a patent infringer, intentional or knowing, may warrant enhanced damages, without regard to whether his infringement was objectively reckless." 2016 U.S. LEXIS 3776 at *17. "Section 284 permits district courts to exercise their discretion in a manner free from the inelastic constraints of the Seagate test." 2016 U.S. LEXIS 3776 at *19.

The Supreme Court explained that although "[d]istrict courts enjoy discretion in deciding whether to award enhanced damages, and in what amount", that discretion is not without limits. 2016 U.S. LEXIS 3776 at *15. Enhanced damages are generally appropriate under § 284 only in "egregious cases" of misconduct beyond typical infringement and should not be awarded in "garden-variety cases." See 2016 U.S. LEXIS 3776 at *15, *19, *24. "The sort of conduct warranting enhanced damages has been variously described . . . as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or — indeed — characteristic of a pirate." 2016 U.S. LEXIS 3776 at *15.

Finally, in *Halo*, the Supreme Court explained that enhanced damages need only be proven by a preponderance of the evidence, not clear and convincing

evidence. 2016 U.S. LEXIS 3776 at *20. And a district court's determination of whether to award enhanced damages is reviewed for abuse of discretion on appeal. 2016 U.S. LEXIS 3776 at *21.

In the present case, the Court instructed the jury as to willful infringement.¹⁶ The Court's instruction was limited to the issue of subjective willfulness and did not

In this case, Presidio also argues that ATC willfully infringed Presidio the '356 patent

To prove willful infringement against ATC, Presidio must first persuade you that ATC infringed a valid and enforceable claim of Presidio's asserted patent. The requirements for proving such infringement were discussed in my prior instructions. In addition, to prove willful infringement, Presidio must persuade you by clear and convincing evidence that on or after December 8, 2015, ATC acted with reckless disregard of the claims of the patent holder's patent. When a party has the burden of proving something by clear and convincing evidence, it means you must be persuaded by the evidence that the claim or defense is highly probable. This is a higher standard of proof than proof by a preponderance of the evidence.

To demonstrate such "reckless disregard," Presidio must persuade you that ATC actually knew, or it was so obvious that ATC should have known, that its actions constituted infringement of a valid patent. In deciding whether ATC acted with reckless disregard for Presidio's asserted patents, you should consider all of the facts surrounding the alleged infringement including, but not limited to, the following factors:

^{16.} The Court provided the following jury instruction as to willful infringement:

address objective willfulness. The jury then found by clear and convincing evidence that ATC's infringement of the '356 patent was willful. (Doc. No. 328 at 4.)

ATC argues that in light of the Supreme Court's decision in *Halo*, the jury's verdict as to willfulness is void and should be disregarded. (Doc. No. 361 at 1.) The Court disagrees. ATC is correct that in *Halo*, the Supreme Court held that the ultimate decision of whether to award enhanced damages and in what amount is committed to the sound discretion of the trial court. *See Halo*, 2016 U.S. LEXIS 3776 at *11, *14-15, *22 . But there is no language in *Halo* holding that a finding as to whether the infringement was willful must be made by the Court. Nor is there any language in the *Halo* decision holding that a

2. Whether ATC intentionally copied a product of Presidio covered by the patents;

3. Whether there is a reasonable basis to believe that ATC did not infringe or had a reasonable defense to infringement, including a belief that the patent-in-suit is invalid;

4. Whether ATC made a good-faith effort to avoid infringing the patent, for example, whether ATC attempted to design around the patent;

5. Whether ATC tried to cover up its alleged infringement.

(Doc. No. 327 at 35-36.)

^{1.} Whether ATC acted in a manner consistent with the standards of commerce for its industry;

jury may not make a finding as to subjective willfulness. Indeed, the Federal Circuit has historically held that a finding of willfulness is a question of fact. *See Bard*, 682 F.3d at 1006. The Federal Circuit has further held that only the determination of whether the infringement was objective reckless is a question of law to be decided by the Courts. *Id.* at 1007. And a determination as to objective recklessness is no longer a prerequisite for an award of enhanced damages. *See Halo*, 2016 U.S. LEXIS 3776 at *15. Accordingly, the Court properly permitted the jury to issue a finding as to whether ATC's infringement was willful and the jury's finding as to this issue is not void.

ATC also notes that the jury only made a finding as to subjective willfulness and did not make a finding as to objective willfulness. (Doc. No. 361 at 1-3.) But this is of no consequence because, after *Halo*, a finding as to objective recklessness is no longer necessary to support an award of enhanced damages. See 2016 U.S. LEXIS 3776 at *17 ("The subjective willfulness of a patent infringer, intentional or knowing, may warrant enhanced damages, without regard to whether his infringement was objectively reckless."). In sum, the jury found that ATC's infringement of the '356 patent was willful, and ATC has failed to provide the Court with a valid basis for disregarding the jury's finding. Indeed, the Court notes that the jury found willful infringement by clear and convincing evidence — a higher burden of proof than is required after Halo. See 2016 U.S. LEXIS 3776 at *20. Accordingly, the Court declines to issue a finding of no willful infringement and denies ATC's motion for a finding by the Court of no willful infringement.

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Nevertheless, the ultimate determination of whether to award enhanced damages is committed to the discretion of the district court. *Halo*, 2016 U.S. LEXIS 3776 at *11, *14-15, *22. In exercising this discretion, a district court should take into account the particular circumstances of the case in deciding whether to award enhanced damages, and Presidio intends to seek enhanced damages under the recently announced *Halo* standard after the Court issues judgment. *See* 2016 U.S. LEXIS 3776 at *19. Accordingly, the Court defers the ultimate decision of whether to award enhanced damages in this action until Presidio brings a motion following entry of judgment.

VII. Issues Tried to the Court

To the extent that any of the issues were reserved for the Court to try, the Court set a post-trial evidentiary hearing for April 29, 2016. (Doc. No. 322.) The parties then agreed to submit the issues to the Court based on written briefing without further evidence taken in Court. (Doc. Nos. 334, 335.)

Having heard and considered all the evidence in this case including the briefing and arguments of the parties, the Court finds in favor of Plaintiff on the issues submitted to the Court, and adopts this order as its memorandum decision on those issues, including indefiniteness, equitable intervening rights, equitable estoppel, and laches. *See* Fed. R. Civ. P. 52. Accordingly, the Court enters judgment in favor of Presidio and against ATC on those issues.

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Conclusion

For the reasons above, the Court:

1. Denies ATC's Rule 50(a) motion for judgment as matter of law without prejudice to ATC filing a renewed motion under Rule 50(b);

2. Denies ATC's motion for the entry of judgment in its favor on its affirmative defense and counterclaim that the asserted claims of the '356 patent are invalid due to indefiniteness;

3. Denies ATC's motion for the entry of judgment in its favor on its equitable affirmative defenses of equitable intervening rights, equitable estoppel, and laches;

4. Denies ATC's motion for a finding by the Court of no willful infringement; and

5. Finds in favor of Presidio and against ATC on trial issues reserved for the Court.

IT IS SO ORDERED.

DATED: June 17, 2016

/s/ Marilyn L. Huff MARILYN L. HUFF, District Judge UNITED STATES DISTRICT COURT

APPENDIX D — ORDER OF THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF CALIFORNIA, FILED AUGUST 25, 2008

IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF CALIFORNIA

Civil Action No. 08cv335 IEG (NLS)

PRESIDIO COMPONENTS, INC.,

Plaintiff,

v.

AMERICAN TECHNICAL CERAMICS CORPORATION,

Defendant.

August 22, 2008, Decided August 25, 2008, Filed

ORDER DENYING DEFENDANT'S MOTION FOR SUMMARY JUDGMENT OF INDEFINITENESS

(Doc No. 18.)

Presently before the Court is Defendant's Motion for Summary Judgment of Indefiniteness. For the following reasons the Court DENIES Defendant's motion.

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BACKGROUND

I. Factual Background

The disputed patent is entitled "Integrated Broadband Ceramic Capacitor Array." A capacitor is a device conventionally comprised of two metal plates separated by a non-conductor of direct electric current. This nonconductive material is known as a "dielectric." Dielectric material includes air or ceramic.

A capacitor is charged by coupling its plates to an electrical source. Since electricity passes easily through the metal plates--which are electrical conductors--but not the dielectric, a positive electrical charge accumulates on one plate and a negative charge accumulates on the other plate. Or, put another way, electrons are introduced on one of the metal plates and electrons are depleted on the other. When thus charged, the capacitor stores energy which can then be released by connecting the plates via an external path and permitting current to flow from one plate to the other. The electrons will flow off the negatively charged plate and to the positively charged plate, bringing the two plates to equal relative voltage. Two types of capacitors are utilized in the '356 patent, parallel plate capacitors (left) and fringe effect capacitors (right).



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The '356 patent discloses and claims a capacitor consisting of a network of capacitors. The geometry and spacing of the multiple conductive and non-conductive layers of the multilayer capacitor forms multiple parallelplate capacitors and fringe-effect capacitors.

The embodiment pictured below demonstrates the positioning of conductive plates inside the dielectric body (e.g., structures 10 and 11) as well as "fringe-effect capacitor" which is formed by positioning the ends of two conductors in an edge-to-edge relationship (e.g., the space between 72 and 74 below).



II. Procedural Background

On June 11, 2008, Defendant moved this court for summary judgment, seeking a holding that claims 1-5, 16, 18 and 19 of the 356 patent are indefinite under 35 U.S.C. § 112, second paragraph, which requires that "the specification shall conclude with one or more claims particularly pointing out and distinctly claiming

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the subject matter which the applicant regards as his invention." 35 U.S.C. § 112. (Doc. No. 18.)

On the same day as Defendant filed its motion, the Court construed several disputed terms associated with the 356 patent, including many at issue in the present motion.

From Claim 1, the Court construed **substantially monolithic dielectric body** as "a dielectric body largely but not wholly without seams from the inclusion of plates within the dielectric body."

From Claim 1, the Court construed **the second contact being located sufficiently close to the first contact to form a first fringe-effect capacitance with the first contact** as "an end of the first conductive contact and an end of the second conductive contact are positioned in an edge-to-edge relationship in such proximity as to form a determinable capacitance."

From Claim 3, the Court construed the second contact being located sufficiently close to the first contact on the second side of the dielectric body to form a second fringe-effect capacitance with the first contact as "another end of the first conductive contact and another end of the second conductive contact are present on the second side of the substantially monolithic dielectric body and are positioned in

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an edge-to-edge relationship in such proximity as to form a determinable capacitance."

From Claim 19, the Court construed **the dielectric body has a hexahedron shape** as "the substantially monolithic dielectric body has six sides."

On July 11, 2008, Presidio filed its opposition to Defendant's motion, along with a declaration from expert Dr. Gary Ewell. (Doc. No. 23.) On July 18, 2008, ATC filed its reply. (Doc. No. 26.) The Court heard oral argument on August 8, 2008.

LEGAL STANDARD

I. Summary Judgment

Summary judgment is proper where the pleadings and materials demonstrate that "there is no genuine issue as to any material fact and . . . the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322, 106 S. Ct. 2548, 91 L. Ed. 2d 265 (1986). A material issue of fact is a question that a trier of fact must answer to determine the rights of the parties under the applicable substantive law. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248, 106 S. Ct. 2505, 91 L. Ed. 2d 202 (1986). A dispute is genuine "if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Id.* at 248. Summary judgment may be granted in favor of a moving party on an ultimate issue of fact where the moving party carries its
burden of "pointing out to the district court that there is an absence of evidence to support the nonmoving party's case." *Celotex*, 477 U.S. at 325.

The moving party bears "the initial responsibility of informing the district court of the basis for its motion." *Celotex*, 477 U.S. at 323. To satisfy this burden, the moving party must demonstrate that no genuine issue of material fact exists for trial. Id. at 322. However, the moving party is not required to negate those portions of the non-moving party's claim on which the non-moving party bears the burden of proof. Id. at 323. To withstand a motion for summary judgment, the non-movant must then show that there are genuine factual issues which can only be resolved by the trier of fact. Reese v. Jefferson School Dist. No. 14J, 208 F.3d 736, 738 (9th Cir.2000) (citing Fed. R. Civ. P. 56; Celotex, 477 U.S. at 323). The nonmoving party may not rely on the pleadings but must present specific facts creating a genuine issue of material fact. see Nissan Fire & Marine Ins. Co., v. Fritz Cos., 210 F.3d 1099, 1103 (9th Cir. 2000). The inferences to be drawn from the facts must be viewed in a light most favorable to the party opposing the motion, but conclusory allegations as to ultimate facts are not adequate to defeat summary judgment. Gibson v. County of Washoe, Nev., 290 F.3d 1175, 1180 (9th Cir. 2002). The court is not required "to scour the record in search of a genuine issue of triable fact," Keenan v. Allan, 91 F.3d 1275, 1279 (9th Cir. 1996), but rather "may limit its review to the documents submitted for purposes of summary judgment and those parts of the record specifically referenced therein." Carmen v. San Francisco Unified Sch. Dist., 237 F.3d 1026, 1030 (9th Cir. 2001).

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II. Indefiniteness

Proof of indefiniteness requires an accused infringer to show by clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as her knowledge of the relevant art area. *Halliburton Energy Services, Inc. v. M-I LLC*, 514 F.3d 1244, 1249-50 (Fed. Cir. 2008). Put another way, a "claim is indefinite if its legal scope is not clear enough that a person of ordinary skill in the art could determine whether a particular [apparatus] infringes or not." *Geneva Pharmaceuticals, Inc. v. Glaxosmithkline PLC*, 349 F.3d 1373, 1384 (Fed. Cir. 2003).

The definiteness requirement does not compel absolute clarity. Only claims not amenable to construction or insolubly ambiguous are indefinite." *Datamize, LLC v. Plumtree Software, Inc.,* 417 F.3d 1342, 1347 (Fed. Cir. 2005). If the meaning of the claim is discernable, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree, the Federal Circuit has held the claim sufficiently clear to avoid invalidity on indefiniteness grounds. *Id.* That is, a claim is not indefinite due to alleged ambiguity when the meaning is ascertained from the description in the specification. *Howmedica Osteonics Corp. v. Tranquil Prospects, Ltd.,* 401 F.3d 1367, 1371 (Fed. Cir. 2005) (claim not indefinite due to ambiguity when meaning readily ascertained from the description in the specification).

The Federal Circuit has explained that determination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims. *Exxon Research and Eng'g Co. v. United States*, 265 F.3d 1371, 1376 (Fed. Cir. 2001). In making such a determination, a Court may consider or reject certain extrinsic evidence in resolving disputes en route to pronouncing the meaning of claim language. In so doing, the court is not crediting certain evidence over other evidence or making factual evidentiary findings, rather, the court is looking to the extrinsic evidence to assist in its construction of the written document. *Id*.

As several district courts have observed, however, while the Federal Circuit has described the indefiniteness inquiry as a question of law, where evidence beyond the claims and written description may be reviewed, factual issues are likely to arise. See Hako-Med USA, Inc. v. Axiom Worldwide, Inc., 2008 U.S. Dist. LEXIS 64953, 2008 WL 2943367, *8 (M.D. Fla. July 29, 2008) (where evidence on indefiniteness consisted of contradictory expert opinion, summary judgment as to indefiniteness improper); Enzo Life Sciences, Inc. v. Digene Corp., 305 F. Supp.2d 406, 408 (D. Del. 2004) (recognizing inherent tension in case law surrounding the appropriateness of resolving indefiniteness questions as a matter of law); System Management Arts Inc. v. Avesta Tech., Inc., 137 F. Supp.2d 382, 399 (S.D.N.Y. 2001) (collecting cases and discussing tension in case law regarding indefiniteness as a question of law; concluding question of indefiniteness must be evaluated under ordinary standards applicable to a summary judgment motion; ultimately finding extrinsic

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evidence was sufficient to give rise to a genuine issue of material fact as to indefiniteness).

Here, the Court considers the question of indefiniteness under the ordinary standards applicable to summary judgment motion and bearing in mind the burden of proof on the party alleging invalidity.

DISCUSSION

I. Challenge to Claim 1

a. Background

Claim 1 describes the following integrated capacitor (terms challenged on indefiniteness grounds are bolded):

A capacitor comprising: [1] a substantially monolithic dielectric body;

a conductive first plate disposed within the dielectric body;

a conductive second plate disposed within the dielectric body and forming a capacitor with the first plate;

a conductive first contact disposed externally on the dielectric body and electrically connected to the first plate; and a conductive second contact disposed externally on the dielectric body and electrically connected to the second

plate, and [2] the second contact being located sufficiently close to the first contact to form [3]a first fringe-effect capacitance with the first contact.

b. Indefiniteness

ATC argues Claim 1 is indefinite because it contains three indefinite claim elements, specifically, those identified above: (i) a substantially monolithic dielectric body; (ii) the second contact being located sufficiently close to the first contact to form a first fringe-effect capacitance with the first contact; (iii) a first fringe-effect capacitance.

i. "a substantially monolithic dielectric body"

1. Parties' Argument

ATC asserts that the evidence thus forth has established that the term "substantially monolithic dielectric body," even as construed by the Court, is indefinite, in turn making Claim 1 indefinite. ATC notes that the '356 patent does not expressly define the phrase "substantially monolithic dielectric body" and that Presidio's initial expert in this case, Dr. Goldshalk, admitted there is no objective test in the technical literature or elsewhere to determine whether a dielectric body is substantially monolithic.

Presidio relies on the declaration of its new expert Dr. Gary Ewell--a technical consultant with at least twenty years experience in the field of multilayer

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capacitors, including a recent emphasis on capacitor reliability testing--who asserts the term substantially monolithic dielectric body, as defined by the Court, is clear and understandable to a person trained in the art. He explains that when multiple capacitors are sintered, as described and claimed in the '356 patent, the results in voids, gaps, and seams, rendering the structure--an array of capacitors--"substantially monolithic." That is, monolithic, but to a lesser degree than a single capacitor. Dr. Ewell describes this "monolithicness" as a comment on the structure's physical integrity, i.e., its ability to resist fracturing when subjected to the normal range of forces involved in placing the component on a substrate and then to normal stresses involved in its application by the user. In accordance with this definition, Dr. Ewell proposes a test for determining whether a particular dielectric body is "substantially monolithic" or not. He posits that a sample in question would be put through the normal manufacturing and testing sequence as well as higher-level electronic assembly. If the internal gaps, voids, and seams are so small or minor within the parts that the samples remain integral under those conditions and do not fragment or break into pieces, then the body would be considered "substantially monolithic." If the samples did fragment or shatter, then the body would not be considered "substantially monolithic." (See Doc. No. 23, Presidio's Opp'n, Ex. 5, Declaration of Garv James Ewell, pg. 2-5.)

In its reply, ATC rejects Dr. Ewell's proposed test, arguing there is no causal link between whether a capacitor is "substantially monolithic" and whether the capacitor stays intact under certain usage conditions.

ATC also finds Dr. Ewell's test insufficiently defined; ATC points out that Dr. Ewell does not provide specific conditions in either his declaration or deposition which would outline the parameters of the proposed reliability testing.

2. Court's Construction

This Court's Claim Construction Order construed the term **substantially monolithic dielectric body** as "a dielectric body largely but not wholly without seams from the inclusion of plates within the dielectric body." This was the Court's conclusion, based on examination of the patent as well as testimony of Defendant's expert, Dr. Joseph P. Dougherty, as to "the ordinary and customary meaning of a claim term," i.e., "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, as of the effective date of the patent application." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). This was the construction advanced in the alternative by ATC--whose primary argument at the Claim Construction Hearing was (as it is now) that this claim term is indefinite.

ATC essentially contends the Court's construction did not cure the indefiniteness problem since a term of degree like substantially cannot be applied to the concept of "monolithicness." Further, even in the words of the Court's construction, argues ATC, a skilled artisan is without guidance as to whether a structure is largely but not wholly without seams.

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3. Analysis

The use of the word "substantially" in claim language does not by itself render a claim fatally indefinite. *See e.g., Pave Tech, Inc. v. Snap Edge Corp.*, 952 F.Supp. 1284, 1292 (N.D. Ill. 1997) (term "substantial," when considered in light of entire claimed invention, was as accurate as subject matter permitted, and provided sufficient guidance to one skilled in the art); *James River Corp. of Virginia v. Hallmark Cards*, 915 F.Supp. 968, 989 (E.D. Wisc. 1996) (word "substantially" in the term "substantially integrated" was sufficiently defined, since one skilled in the art could recognize the difference between prior art and the claimed invention).

Instead, as the Federal Circuit has explained, the key consideration is whether the language provided sufficient guidance to one skilled in the art as to the scope of the claimed invention. *See Verve, LLC v. Crane Cams, Inc.,* 311 F.3d 1116, 1120 (Fed. Cir. 2002) ("It is well established that when the term 'substantially' serves reasonably to describe the subject matter so that its scope would be understood by persons in the field of the invention, and to distinguish the claimed subject matter from the prior art, it is not indefinite.").

At the outset, the Court notes its rejection of ATC's challenge to Dr. Ewell's qualifications. While Dr. Ewell stated he does not design multi-layer capacitors in his current position, his long experience regarding capacitors, including evaluating capacitor reliability and compliance with a particular specification, qualify him to opine on how a skilled artisan would apply the claim language.

Dr. Ewell's declaration suggests someone skilled in the art would be able to apply the claim language "a substantially monolithic dielectric body" so as to determine whether a particular device was inside or outside the scope of Claim 1 by performing the reliability testing he frequently conducts and which he asserts would be familiar to a skilled artisan. While Dr. Ewell's testimony is less than complete--he does not define parameters of the testing regime endorsed--Defendant has not specifically rebutted Dr. Ewell's assertions concerning the accuracy or prevalence of such reliability testing. Dr. Dougherty's statement at the time of claim construction merely faulted the specification for failing to teach the difference between a substantially monolithic and non-monolithic dielectric body. No subsequent statement from Dr. Dougherty has been made in reference to the type of testing described by Dr. Ewell. (See Doc. No. 18, Rule 4.2 Statement of Dr. Joseph P. Dougherty In Support of ATC's Claim Construction, Ex. 8, pg. 22-23.)

Under the circumstances, ATC has failed to demonstrate by clear and convincing evidence that the language of the claim is insolubly ambiguous, and Defendant's motion for summary judgment of indefiniteness must fail.

ii. the second contact being located sufficiently close to the first contact to form a first fringe-effect capacitance with the first contact"

1. Parties' Argument

ATC argues this term is indefinite since there is no workable objective standard for determining what degree of closeness is sufficient, the term "sufficiently close" does not distinguish the invention from prior art, and "sufficiently close . . . to for a fringe-effect capacitance" is improperly functional since it attempts to define the invention in terms of what it accomplishes as opposed to what it is. ATC asserts that a fringe-effect capacitance is always present wherever two electric conductors are positioned in an edge-to-edge relationship meaning there is no minimum distance at which the fringe-effect capacitance suddenly appears. Accordingly, ATC argues such a term--which simply recites the first and second conductive contacts located "sufficiently close" to form a fringe-effect capacitance--is ambiguous. ATC points out that Presidio's prior expert admitted there was not enough data in the patent to define the fringe-effect capacitance reflected in the patent's drawings. Similarly, ATC claims that "sufficiently close to form a fringe-effect capacitance" fails to distinguish the alleged invention from specific prior art identified in the '356 patent since none of the figures provide values of the gap widths for the fringe-effect capacitances represented. Further, ATC argues the language is indefinite because Presidio has used "functional language," that is, Presido has defined its

invention by what it is intended to do, i.e., form a fringeeffect capacitance by locating contacts sufficiently close, rather than what it is, i.e., structural dimensions of the contacts.

Presidio argues the term is definite based on the Court's construction of "sufficiently close" as a proximity close enough to form a "determinable capacitance." Presidio further asserts that whether a fringe-effect capacitance is determinable, can be tested and there is an objective workable standard that one skilled in the art would employ to do so. Dr. Ewell's declaration sets forth an objective test for determining whether or not two edges are "sufficiently close to form a determinable capacitance": If the first and second contacts are close enough such that the capacitance formed affects the insertion or data loss of the network or array of capacitors, then it is determinable and falls within the scope of this claim term. (*See* Doc. No. 23, Presidio's Opp'n, Ex. 5, Declaration of Gary James Ewell, pg. 5-8.)

ATC asserts Dr. Ewell's construction is inconsistent with the Court's Claim Construction Order in which this Court rejected a definition of "sufficiently close" which would have incorporated an effect on high frequency performance. In addition, ATC faults Dr. Ewell for failing to provide a specification for how testing regarding the determinability of the capacitance formed by the fringe effect capacitor would be conducted.

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2. Court's Construction

The Court held the term the second contact being located sufficiently close to the first contact to form a first fringe-effect capacitance with the first contact means "an end of the first conductive contact and an end of the second conductive contact are positioned in an edge-to-edge relationship in such proximity as to form a determinable capacitance."

3. Analysis

In his declaration, Dr. Ewell states that as defined by the Court, whether an edge-to-edge capacitance is "determinable" depends on whether the presence of such a fringe-effect capacitance has an effect on the performance of the entire capacitor array. He asserts that one of ordinary skill in the art would be able to make such a determination through testing involving samples of each family of array designs. Each design would seek to vary the strength of the fringe effect capacitor by varying the spacing of the external surface conductors forming the capacitor. The artisan could then electrically measure the properties of the various groups of samples and associate the change in electrical properties, effect on insertion loss, and effect on data loss from group to group, with the variation in the design of the fringe-effect capacitor. If the capacitor change resulted in a specific change in the array's electrical properties, then it would be determinable. These changes in the array's properties caused by fringe-effect capacitors, explains Dr. Ewell, distinguishes the '356 patent from prior art.

Dr. Ewell's testimony does not contradict the Court's Claim Construction but merely reflects his opinion as to how the claim term as defined by the Court would be understood by a skilled artisan. Once again, Dr. Dougherty's statement, delivered at the time of claim construction, contains no directly contradictory claims regarding the propriety of such testing or whether it would reveal a "determinable" capacitance. (*See* Doc. No. 18, Rule 4.2 Statement of Dr. Joseph P. Dougherty In Support of ATC's Claim Construction, Ex. 8, pg. 29-30.)

The Court also rejects ATC's functionality argument. The Federal Circuit has held that claim language is not necessarily indefinite for using functional language. *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008). There is nothing intrinsically wrong with using functional language in claims, unless it fails to provide a clear-cut indication of the scope of subject matter embraced by the claim. *See id.* As discussed above, the specification and Dr. Ewell's testimony provide sufficient description of the scope of the claim.

With respect to this challenged term, ATC has failed to demonstrate by clear and convincing evidence that the language of the claim is insolubly ambiguous, and Defendant's motion for summary judgment of indefiniteness as to this term must also fail.

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iii. "a first fringe-effect capacitance"

1. Parties' Argument

ATC argues the term "first fringe-effect capacitance" is indefinite since the patent does not define how to identify which fringe-effect capacitance is the "first."

Presidio argues the first and second contacts may be one of an arbitrary number of fringe-effect capacitors along the surface of the monolithic array of capacitors.

2. Court's Construction

As discussed above, the Court held the term the second contact being located sufficiently close to the *first contact to form a first fringe-effect capacitance* with the first contact means "an end of the first conductive contact and an end of the second conductive contact are positioned in an edge-to-edge relationship in such proximity as to form a determinable capacitance."

3. Analysis

Dr. Ewell's explains that one of ordinary skill in the art would understand the word "first" in the claim language as relating to the first of an arbitrary numbering of multiple fringe-effect capacitors. Dr. Ewell's declaration is consistent with the Court's Claim Construction Order which treats the numbering of the fringe effect capacitors formed by the contacts as arbitrary.

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Defendant's motion for summary judgment of indefiniteness on this term also fails.

II. Challenge to Claims 2-5, 16, 18, and 19

a. Background

Claims 2-5, 16, 18, and 19 are all dependent on Claim 1. Accordingly, ATC argues Claims 2-5, 16, 18, and 19 are indefinite because they do not cure the deficiencies of Claim 1 which is itself indefinite.

As discussed above, the Court rejects Defendant's contention that summary judgment for indefiniteness is appropriate as to Claim 1, thus the Court does not find dependant claims indefinite based on Claim 1.

However, in addition to the arguments above, ATC argues certain of the claims are indefinite for additional reasons. Specifically, ATC identifies (1) Claim 3; (2) Claim 18; and (3) Claim 19.

b. Indefiniteness

i. Claim 3

ATC argues that in Claim 3, the term "the second contact being located sufficiently close to the first contact on the second side of the dielectric body to form a second fringe-effect capacitance with the first contact" is indefinite for the same reasons discussed with respect to use of "sufficiently close" in Claim 1.

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The analysis for this term and the challenged term in Claim 1 is identical.

For the reasons discussed above, the Court finds Defendant's motion for summary judgment of indefiniteness on this term fails.

ii. Claim 18

1. Parties' Argument

ATC argues the use of the term "the ceramic body" in Claim 18 makes the claim indefinite since there is no prior recitation of "a" ceramic body, meaning the term "the" ceramic body lacks an antecedent basis and has no reasonably ascertainable meaning.

Presidio maintains that dependent Claim 18 and the term the ceramic body" refers to the dielectric body recited in independent Claim 1. Presidio notes there is nothing else in Claim 1 to which the term the ceramic body could refer. Presidio cites Dr. Ewell's declaration and his assertion that one skilled in the field would understand that the ceramic body in claim 18 refers to the dielectric body recited in Claim 1.

2. Analysis

The failure to provide explicit antecedent basis does not always render a claim indefinite. Manual of Patent Examining Procedure ("MPEP") § 2173.05(e). If the claim is reasonably ascertainable by those skilled in the

art, then the claim is not indefinite. *Energizer Holdings Inc. v. International Trade Comm'n*, 435 F.3d 1366, 1369 (Fed. Cir. 2006).

Dr. Ewell states that one of ordinary skill in the art would immediately understand the phrase "the ceramic body" in Claim 18 is referring to the "dielectric body" in Claim 1 based on the practice of many writers and manufacturers to use the terms interchangeably. Dr. Ewell's declaration is supported by Claim 18's dependance on Claim 1 and the '356 patent's express mention of ceramic as a dielectric.

Defendant's motion for summary judgment of indefiniteness on this term also fails.

iii. Claim 19

1. Parties' Argument

ATC argues that while Claim 19 purports to claim a dielectric body having a particular shape, the term "hexahedron" is indefinite because while stating the number of sides, it does not define any shape. ATC notes that several shapes have six sides.

Presidio argues the claim term defines a structure that is a hexahedron shape and also a capacitor. Accordingly, someone learned in the art would understand that what is claimed is a capacitor with six sides, not counting very minor additional sides formed by the surfaces of external conductive layers. Presidio cites Dr. Ewell's declaration,

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which notes that all commercially available monolithic dielectric bodies manufactured in the United States have at least six sides.

2. Court's Construction

The Court construed the term **the dielectric body has a hexahedron shape** as "the monolithic dielectric body has six sides.

3. Analysis

The parties' briefs have centered on the question of whether the Court's construction ("the monolithic dielectric body with six sides") would also include a monolithic dielectric body with more than six sides, i.e. six sides and two additional sides.

This inquiry is further afield than the definiteness issue presently before the Court, with the parties' arguments apparently previewing issues of infringement.

The declarations of both experts implicitly concede that a skilled artisan could determine whether a dielectric body has six sides. Accordingly, Defendant's motion for summary judgment of indefiniteness on this term also fails.

CONCLUSION

For the foregoing reasons, the Court concludes ATC has not shown by clear and convincing evidence that the

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challenged terms are indefinite, the Court DENIES Defendant's motion for summary judgment.

IT IS SO ORDERED.

DATED: August 22, 2008

<u>/s/ Irma E. Gonzalez</u> IRMA E. GONZALEZ, Chief Judge United States District Court

APPENDIX E — ORDER OF THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF CALIFORNIA, FILED JULY 30, 2009

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF CALIFORNIA

CASE NO. 08cv335 - IEG - NLS

PRESIDIO COMPONENTS, INC.,

Plaintiff,

vs.

AMERICAN TECHNICAL CERAMICS CORP.,

Defendant.

July 30, 2009, Decided July 30, 2009, Filed

ORDER GRANTING MOTION TO RESOLVE A FUNDAMENTAL DISPUTE OVER CLAIM SCOPE

[Doc. No. 188.]

In this patent-infringement case, defendant American Technical Ceramics Corp. ("ATC") requests the Court resolve a fundamental dispute over the meaning of the phrase "determinable capacitance" as used in the Claim Construction Order. Plaintiff Presidio Components, Inc. opposed the motion, submitting an alternative definition.

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Having considered the parties' submissions, and for the reasons set forth below, the Court enters the following memorandum and order.

BACKGROUND

The Court limits its background discussion to the procedural developments relevant to this motion. On July 14, 2008, the Court issued the Claim Construction Order, construing various disputed claims of the patentin-suit, United States Patent No. 6,816,356 ("the '356 patent"). Of particular import to the present motion, the Court construed the last element of the '356 patent's claim one, which reads, "the second contact being located sufficiently close to the first contact to form a first fringeeffect capacitance with the first contact." (Doc. No. 24, at 13-14.) Presidio proposed the term meant, "[f]orming a capacitance between or proximate opposed ends of the first and second conductive contacts on a second side of the substantially monolithic dielectric body which affects the high frequency performance of the capacitor as a whole." Id. The Court rejected Presidio's construction, finding, "[t]he effect on high frequency performance is not mentioned in claim 1 and nowhere in the specification is the effect on high frequency performance explained. There is simply no justification for introducing the language advanced by Presidio into the construction of the disputed claim term." Id. at 14. Accordingly, the Court adopted ATC's construction, construing the claim as "an end of the first conductive contact and an end of the second conductive contact are position in an edge-to-edge relationship in such proximity as to form a *determinable* capacitance." Id. (emphasis added).

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On August 25, 2008, the Court denied ATC's motion for summary judgment of indefiniteness (the "August 25 order"). (Doc. No. 32.) ATC argued, among other things, that the last element of claim one was indefinite because "there is no workable objective standard for determining what degree of closeness is sufficient." (Doc. No. 32 at 9.) ATC asserted that "a fringe-effect capacitance would always be present wherever two electric conductors are positioned in an edge-to-edge relationship." Id. Presidio argued the term is definite because "sufficiently close" meant there was a determinable capacitance, which Presidio defined as sufficiently close to affect the insertion or data loss of the network or array of capacitors. *Id.* at 10. Presidio submitted the declaration of Dr. Gary Ewell, who believed one of ordinary skill in the art would determine the capacitance of a capacitor by varying the spacing of external conductors, then testing the change in electrical properties, effect on insertion loss, and effect on data loss. Id. The Court, relying on Dr. Gary Ewell, found ATC "failed to demonstrate by clear and convincing evidence that the language was insolubly ambiguous." Id.

LEGAL STANDARD

The purpose of claim construction is to "determin[e] the meaning and scope of the patent claims asserted to be infringed." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996). When the parties dispute the scope of these claims, the Court, not the jury, must resolve the dispute. *Id.* at 979. Here, the parties raise a genuine dispute over the scope of the claims, arising from their contrary interpretations of the

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Court's use of the phrase "determinable capacitance." The Court, not the jury, must decide the applicable scope of the term "determinable capacitance." *See O2 Micro Int'l ltd. v. Beyond INnovation Tech. Co., Ltd.,* 521 F.3d 1351, 1361-62 (Fed. Cir. 2008) (vacating a jury verdict because a district court allowed the parties to submit argument

and testimony regarding the scope of the claim).

ANALYSIS

The sole issue is the meaning of the term "determinable capacitance." ATC argues "determinable capacitance" means a capacity which is capable of being determined. Presidio believes "determinable capacitance" means "the capacitance formed affects the insertion loss or data loss of the network or array of capacitors."

i. ATC's Arguments

ATC relies on both the plain meaning of the words and the Court's reasoning in its claim construction order. ATC argues a person of ordinary skill in the art would use the plain meaning of both "determinable" and "capacitance" when describing claim one. "Determinable," according to ATC, means a quantity is "capable of being determined, definitely ascertained, or decided upon." Additionally, ATC argues the term capacitance is used throughout the '356 patent in its plain, ordinary dictionary sense to connote an ability to hold a charge, measured in farads.¹

^{1.} A "farad" is a unit used to measure capacitance by quantifying the potential difference of electrical charges between plates of a capacitor. *McGraw-Hill Dictionary of Scientific and Technical Terms* 778 (6th ed. 2003).

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ATC attacks Presidio's definition based on the intrinsic record of the '356 patent. ATC attests claim one does not mention the effect on either insertion loss or data loss. Moreover, ATC contends the '356 patent does not use the term "data loss," and only uses "insertion loss" to describe figures 21A and 21B, which compare the insertion loss of two completely different capacitors, not the capacitor claimed to be patented. ATC concludes the intrinsic record supports its definition. ATC also argues Presidio misrepresents the claim construction order and the Court's position on the"determinable capacitance." ATC maintains the Court's August 25 order did not explicitly adopt the definition proposed by Presidio.

ii. Presidio's Arguments

Presidio draws its definition from the Court's August 25 order, in which the Court found claim one was not indefinite. Presidio believes the definition of the term is settled, therefore, ATC is essentially asking the Court to amend its orders.

Presidio also argues, at length, that the Court should estop ATC from arguing in favor of a different claim construction because the Court adopted ATC's definition during claim construction. Presidio argues ATC should be estopped because (1) its position is clearly inconsistent with its earlier position, (2) ATC has already persuaded the Court to adopt its earlier position, and (3) ATC would derive an unfair advantage if not estopped. *See New Hampshire v. Maine*, 532 U.S. 742, 121 S. Ct. 1808, 149 L. Ed. 2d 968 (2001) (setting forth three factors courts must weigh when considering estoppel).

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Presidio also argues ATC did not properly move for reconsideration and ATC has submitted materials not disclosed during discovery.

iii. Analysis

The Court rejects Presidio's interpretation of determinable capacitance because it is an attempt to use the term "insertion loss" as a proxy for a previously rejected definition. During claim construction, Presidio argued the claim required the capacitor plates in question form a capacitance which "affects the high frequency performance of the capacitor as a whole." (Doc. No. 24, at 13-14.) The Court rejected this definition, finding no indication the claim contemplated high frequency performance. Now, Presidio proposes the final element of claim one requires the capacitor plates form a capacitance that affects the "insertion loss or data loss of the capacitor as a whole." Presidio admits "insertion loss" is "a property critical to and very specific to high frequency applications." (ATC's Motion, Doc. No. 187, Ex. F., Ewell Rebuttal Report ¶¶ 35, 48, 49, 51.) Due to the centrality of insertion loss to high frequency performance, Presidio is attempting to use the term "insertion loss" as a proxy for "high frequency performance." The Court has already determined high frequency performance is not an aspect of claim one; therefore, reading an insertion loss effect into claim one is equally inappropriate.

Further, the intrinsic evidence in the '356 patent supports ATC's argument. The effect on insertion loss or data loss is not mentioned anywhere in claim one. In

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fact, the term "data loss" does not appear in any section of the '356 patent. The term "insertion loss" appears only in connection with the description of Figures 21A and 21B, which compare the insertion loss of two completely different capacitors: a two-piece capacitor that is prior art and a one-piece capacitor depicted in Figure 9A. There is simply no justification for introducing insertion loss or data loss into claim one.

Moreover, the August 25 Order does not support Presidio's position. In that order, the Court found ATC failed to demonstrate by clear and convincing evidence that the language of the claim is insolubly ambiguous. The Court noted that Dr. Ewell, Presidio's expert, testified an artisan reasonably skilled in the field would be able to determine the capacitance by testing samples of each design array, testing for an effect on insertion loss or data loss. Critically, the Court *did not* specifically adopt any language relating to insertion loss or data loss, but instead found Dr. Ewell's opinion merely demonstrated ATC had not met the high burden of presenting clear and convincing evidence of ambiguity. Further, the language quoted by Presidio, in which it contends the Court adopted the test, is contained in a section entitled "Parties' Arguments." This section, unsurprisingly, contained a summary of the parties' arguments and did not reflect the opinion of the Court.

Presidio's estoppel argument is unavailing because the Court finds ATC's position is not clearly inconsistent with its earlier position. Additionally, ATC need not apply for reconsideration because its interpretation is consistent

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with the Court's orders. Finally, Presidio's objections to ATC's supporting evidence are immaterial because the disputed evidence did not impact the Court's decision.

CONCLUSION

For the foregoing reasons, the Court adopts ATC's definition and finds "determinable capacitance" means "a capacity that is capable of being determined in terms of a standard unit."

IT IS SO ORDERED.

DATED: July 30, 2009

/s/ Irma E. Gonzalez IRMA E. GONZALEZ, Chief Judge United States District Court

APPENDIX F — DENIAL OF REHEARING OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, FILED JANUARY 26, 2018

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

2016-2607, 2016-2650

PRESIDIO COMPONENTS, INC.,

Plaintiff-Cross-Appellant,

v.

AMERICAN TECHNICAL CERAMICS CORP.,

Defendant-Appellant.

Appeals from the United States District Court for the Southern District of California in No. 3:14-cv-02061-H-BGS, Judge Marilyn L. Huff.

ON PETITIONS FOR PANEL REHEARING AND REHEARING EN BANC

Before Prost, *Chief Judge*, Newman, Lourie, Dyk, Moore, O'Malley, Reyna, Wallach, Taranto, Chen, Hughes, and Stoll, *Circuit Judges*.

PER CURIAM.

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ORDER

Cross-appellant Presidio Components, Inc. filed a petition for panel rehearing and rehearing *en banc*. A separate petition for rehearing *en banc* was filed by appellant American Technical Ceramics Corp. The petitions were referred to the panel that heard the appeals, and thereafter the petitions for rehearing *en banc* were referred to the circuit judges who are in regular active service.

Upon consideration thereof,

IT IS ORDERED THAT:

The petitions for panel rehearing are denied.

The petitions for rehearing *en banc* are denied.

The mandate of the court will issue on February 2, 2018.

For The Court

/s/ Peter R. Marksteiner Peter R. Marksteiner Clerk of Court

January 26, 2018 Date