

**IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

SONIX TECHNOLOGY CO., LTD.,)	
)	
Plaintiff,)	
)	
v.)	No. 13-cv-2082
)	
PUBLICATIONS INTERNATIONAL, LTD.,)	
SD-X INTERACTIVE, INC.,)	
ENCYCLOPAEDIA BRITANNICA, INC., and)	
HERFF JONES, INC. ,)	
)	
Defendants.)	

MEMORANDUM OPINION AND ORDER

AMY J. ST. EVE, District Court Judge:

Defendants Publications International, Ltd. (“PIL”), SD-X Interactive, Inc. (“SD-X”), Encyclopaedia Britannica, Inc. (“Britannica”), and Herff Jones, Inc. (“Herff Jones”), (collectively, “Defendants”) have moved for summary judgment pursuant to Federal Rule of Civil Procedure 56 regarding Plaintiff Sonix Technology Co, Ltd.’s, (“Sonix’s”) allegation of infringement; the definiteness of the U.S. Patent No. 7,328,845 (“the ‘845 Patent”) claim term “visually negligible”; and pre-suit damages. (*See* R.156.) For the following reasons, the Court grants in part and denies in part Defendants’ summary judgment motion.

BACKGROUND

I. Northern District of Illinois Local Rule 56.1

Northern District of Illinois Local Rule 56.1 “is designed, in part, to aid the district court, ‘which does not have the advantage of the parties’ familiarity with the record and often cannot afford to spend the time combing the record to locate the relevant information,’ in determining whether a trial is necessary.” *Delapaz v. Richardson*, 634 F.3d 895, 899 (7th Cir. 2011) (quoting

Waldridge v. Am. Hoechst Corp., 24 F.3d 918, 924 (7th Cir. 1994)). Local Rule 56.1(a)(3) requires the moving party to provide “a statement of material facts as to which the moving party contends there is no genuine issue.” *Cracco v. Vitran Exp., Inc.*, 559 F.3d 625, 632 (7th Cir. 2009) (quoting L.R. 56.1(a)(3)). The nonmoving party must file “a response to each numbered paragraph in the moving party’s statement, including, in the case of any disagreement, specific references to the affidavits, parts of the record, and other supporting materials relied upon.” *Id.* (quoting L.R. 56.1(b)(3)(B)). The nonmoving party also may submit a separate statement of additional facts that require the denial of summary judgment, including references to the affidavits, parts of the record, and other supporting materials relied upon to support those facts. *See* L.R. 56.1 (b)(3)(C); *see also Ciomber v. Coop. Plus, Inc.*, 527 F.3d 635, 643-44 (7th Cir. 2008).

The purpose of Rule 56.1 statements is to identify the relevant admissible evidence supporting the material facts, not to make factual or legal arguments. *See Cady v. Sheahan*, 467 F.3d 1057, 1060 (7th Cir. 2006) (finding Rule 56.1 statements incompliant when they fail to adequately cite the record and are filled with irrelevant information, legal arguments, and conjecture.”) The Court may disregard statements and responses that do not properly cite to the record. *See Cichon v. Exelon Generation Co., LLC*, 401 F.3d 803, 809-810 (7th Cir. 2005.) Moreover, the requirements for responses under Local Rule 56.1 are “not satisfied by evasive denials that do not fairly meet the substance of the material facts asserted.” *Bordelon v. Chicago Sch. Reform Bd. of Trs.*, 233 F.3d 524, 528 (7th Cir. 2000). “[D]istrict courts are entitled to expect strict compliance with Local Rule 56.1.” *Raymond v. Ameritech Corp.*, 442 F.3d 600, 604 (7th Cir. 2006).

Defendants assert that many of Sonix’s responses to Defendants’ Rule 56.1 Statement of Facts are improper under Rule 56.1 and insufficient to establish genuine issues of material fact. In particular, Defendants argue that many of Sonix’s responses are unsupported or unresponsive. Regarding paragraph 10, Defendants rely on their Initial Non-infringement and Invalidity Contentions in support of the statement that even though Defendants sold the Accused Products, they did not know how the dot pattern technology—created and assembled from GeneralPlus—worked. (R.189, ¶ 10.) As Defendants point out in other arguments, however, pursuant to the Local Patent Rules, Initial Non-infringement and Invalidity Contentions are inadmissible as evidence on the merits. (*See* LPR. 1.6, Admissibility of Disclosures.) As such, Defendants’ objection to Sonix’s response to this statement of fact is moot as the Court cannot consider the underlying statement for the purposes of summary judgment. *See Knowles Elecs., LLC v. Analog Devices, Inc.*, 2012 WL 1405745, at *2, n.1 (N.D. Ill. 2012) (*citing* LPR 1.6) (recognizing that initial disclosures are not admissible “as evidence on the merits” while considering the disclosure for the limited purposes of jurisdiction as representative of plaintiff’s allegation of infringement). Regarding paragraph 20, Defendants rely on Sonix’s Final Infringement Contentions and assert that Sonix limited its infringement claims to literal infringement. (R.189, ¶ 35.) Sonix responds, without citing any evidence, that it reserved its right to assert the doctrine of equivalents “to the extent that information gathered through discovery necessitates the assertion of [the doctrine].” (R.189, ¶ 35, Sonix’s Response.) Because Sonix fails to cite evidentiary support and because fact discovery has closed in the present case, the Court treats this statement as admitted. *See* Local Rule 56.1(b)(3)(C); *Cady v. Sheahan*, 467 F.3d 1057, 1060 (7th Cir. 2006) (explaining that the Court may also disregard statements and responses that do not properly cite to the record). Sonix also responds to many

statements as irrelevant without citing supporting portions of the record (*see* R.189, ¶¶ 11-13, 15-16, 20), these facts are deemed admitted. The Court further disregards Sonix’s statements that fail to provide evidentiary support for specific portions or that consist of legal argument. *See* N.D. Ill. L.R. 56.1(b)(3)(C); *see also Tan v. City of Chicago*, No. 00 C 1470, 201 WL 1012586, at *2 (N.D. Ill. Aug. 30, 2001) (ignoring statements unsupported by specific citations to the material relied upon).

Turning to Plaintiff’s Statement of Facts, Sonix failed to comply with the obligation under Local Rule 56.1 for the statement of additional facts to consist of “*short* numbered paragraphs.” *See* L.R. 56.1(b)(3)(C) (emphasis added). Sonix’s statements contain several sentences, and consist of lengthy paragraphs that are, in at least one case, more than a page long. (*See* R.189, Stmt. of Addt’l Facts, ¶ 2.) Sonix’s blatant non-compliance with both the letter and spirit of Local Rule 56.1 has substantially increased the Court’s burden in resolving the pending motions.

II. The Parties’ Objections to Declarations

In addition to the above objections to the Rule 56.1 statement of facts, Sonix objects to the declaration from Ben Wang, an algorithm engineer at GeneralPlus Technology Inc., Taiwan (“Wang Declaration”), submitted in support of summary judgment and Defendants object to the declaration from Dr. Amit Ashok, Sonix’s invalidity and infringement expert (“Ashok Declaration”), submitted in support of Sonix’s opposition to summary judgment.

A. Wang Declaration

The Court previously addressed the Wang Declaration when it granted in part Defendants’ motion for leave to amend their final non-infringement and invalidity contentions.

(*See* R.170.)¹ Indeed, in that opinion, the Court addressed any potential prejudice to Sonix when it ruled that—despite Sonix’s earlier failures to pursue discovery from GeneralPlus at any point in the litigation after repeatedly being directed there by Defendants—the Wang Declaration’s late timing warranted an opportunity for Sonix to depose Mr. Wang. In doing so, the Court stated that it would not consider the Wang Declaration in connection with Defendants’ summary judgment motion unless Defendants produced Mr. Wang for a deposition and provided any discoverable materials he relied upon in rendering his declaration. (*See* R.170, at 13.) Although Mr. Wang did not produce any materials considered—claiming that he relied only on his personal knowledge—he did sit for a deposition in Taipei, Taiwan on September 4, 2015. (R.174-2; R.190.)

Sonix repeatedly relies on the Wang Declaration in support of its opposition to summary judgment. (*See e.g.*, R.188, at 6, 9, 10, 12-13, 20; R.189, Stmt. of Addt’l Facts, ¶¶ 4, 6-15; *see also* R.189, Sonix’s Responses to Defs’. Stmt. of Facts, ¶ 66 (objecting to the Wang Declaration); *id.*, ¶ 67 (relying on the Wang Declaration’s disclosure that a dot pattern scheme in the products is found in the ‘805 Patent).) Despite this repeated reliance, however, Sonix objects to Defendants’ submission of the Wang Declaration as “untimely expert opinion” in a short perfunctory paragraph. Sonix fails, however, to provide argument or analysis in support of its assertion that Mr. Wang is being presented as an expert and instead eludes to Defendants submission of the Wang Declaration as improper since it resulted in Sonix only becoming aware of GeneralPlus’ testimony after the close of fact discovery and at this late stage of the litigation. (*See* R.188, at 20.) Putting aside the fact that the Court has already addressed this argument, it is

¹ In ruling on Defendants’ Summary Judgment Motion (R.155) and Sonix’s Motion for Leave to Amend Final Infringement Contentions (R.200), the Court presumes familiarity with its Opinion and Order entered on Aug. 10, 2015 granting in part Defendants’ Motion for Leave to Amend their Non-Infringement and Invalidity Contentions in Light of New Evidence (R.152). (*See* R.169; R.170.)

equally unpersuasive here, given that Sonix has known since at least November 23, 2013,² that at least some of the accused products incorporate GeneralPlus' technology and the Court provided Sonix the opportunity to depose Mr. Wang after Defendants' submitted his declaration.

Sonix further objects to the Wang Declaration based upon "Defendants' failure to cause GeneralPlus to produce a single record relied upon by Mr. Wang in direct violation of the Court's August 10, 2015 Order requiring Defendants to produce Mr. Wang for deposition and produce supporting records." (*See* R.188, at 20.) The Court already addressed this issue, however, in denying Sonix's motion relating to the deposition of Mr. Wang (R.172) based on GeneralPlus' representation that Mr. Wang's declaration "is based on his own personal knowledge, nothing else." (*See* R.175; R.174-2.) Again, Sonix fails to cite to its statement of facts or to provide the Court with evidence that Mr. Wang indeed relied on documents outside of his personal knowledge, nor does Sonix provide any argument as to why Mr. Wang's personal knowledge is insufficient to support the testimony he offers.

Lastly, Sonix argues that it did not have a meaningful opportunity to depose Mr. Wang at his deposition due to instructions not to answer questions regarding "how the GeneralPlus software actually decodes the dot pattern structure in the accused products." (*See* R.188, at 20.)³

² Defendants served their Initial Noninfringement Contentions on November 23, 2013 which state "[o]thers of the products identified by [Sonix's Initial Infringement Contentions] incorporate the technology ... patented by U.S. Patent No. 7,770,805 issued to General[P]lus Technology Inc. Defendants import, sell, and offer for sale those products pursuant to a license from [GeneralPlus]." (R.153-2, Defs. Initial Noninfringement Contentions, Ex. 2, at 4; R.170, at 3.)

³ The Court denied Sonix's earlier motion for relief relating to the deposition of Mr. Wang and in doing so, reemphasized the narrow scope of its ruling pertaining to Mr. Wang's deposition and indicated that its ruling did not allow Sonix to pursue all discoverable materials that it had failed to pursue during discovery. (R.177, Hrg. Tr., Aug. 31, 2015, at 6:10-7:2 (explaining that the Court's order did not allow Sonix to get all discoverable materials and that it had a "very narrow" scope).) The Court further informed Sonix that "if the deposition goes forward and they did not produce documents or it cannot be an effective deposition because they do not have certain documents, then I will consider that in the context of the motion to strike." (*Id.*, at 5:9-12.)

Sonix generally cites to the 200-page deposition transcript and alleges that counsel gave “over 40 instructions” not to answer, but Sonix does not provide argument or analysis of specific examples, nor does it explain how counsel’s conduct at the deposition or how Sonix’s lack of documents Mr. Wang relied upon rendered their opportunity to depose him—on the limited topics allowed by the Court—less meaningful. (*See* R.188, at 20 (*citing* R.184, ¶¶ 2, 3); R.189, ¶¶ 66.) Accordingly, because the Court made Mr. Wang available for a deposition and Sonix has not demonstrated otherwise, the Court denies Sonix’s objection to the Wang Declaration.⁴

B. Ashok Declaration

Defendants raise a separate threshold evidentiary issue regarding Sonix’s response to Defendants’ summary judgment motion. Namely, Defendants object to Sonix’s submission of the Ashok Declaration and ask the Court to strike the declaration because it contains new information and is untimely. The Court agrees.

Sonix filed the Ashok Declaration in connection with its response to Defendants’ summary judgment motion and in particular, in response to the Wang Declaration. In preparing the declaration, Sonix specifically asked Dr. Ashok to review Defendants’ summary judgment motion, the Wang Declaration, the transcript of Mr. Wang’s deposition, and the U.S. Patent No. 7,770,805 (“the ‘805 Patent”) referenced by Mr. Wang both in his declaration and at his deposition. (R.183, ¶ 4.) After doing so, Dr. Ashok provided his declaration which considers new evidence not disclosed in his earlier expert reports and ultimately affirms his earlier infringement opinions. (*See* R.183, Ashok Decl.; R.184-3, Ex. D, Ashok Op. Expert Report; R.184-4, Ex. E, Ashok Rebuttal Expert Report.) Indeed, Sonix admits that Dr. Ashok presents

⁴ Although the Court does not ultimately rely on the Wang Declaration in its determination that the ‘845 Patent is invalid for indefiniteness, *see supra* Analysis, Section I, the discussion of the issues provides an understanding of the evidentiary landscape before the Court.

supplemental opinions and new bases for his opinions in the Ashok Declaration that did not exist in his original expert report. (*See* R.201, at 5 (“Sonix seeks to amend its infringement contentions to: (i) clearly conform to the new evidence produced by Defendants in Mr. Wang’s declaration and deposition testimony as well as Dr. Ashok’s supplemental opinions expressed in his declaration in opposition to summary judgment”); *id.*, at 6 (“Once Mr. Wang’s declaration was filed, Sonix promptly sought and obtained an opportunity to depose Mr. Wang, took his deposition in Taiwan, and worked with its expert to supplement his opinions in view of this new evidence as reflected in Dr. Ashok’s declaration filed on September 23, 2015”).)

Expert disclosures and testimony are governed by Federal Rule of Civil Procedure 26(a)(2). The rule states that the disclosed expert must prepare and sign a report that contains “a complete statement of all opinions the witness will express and the basis and reasons for them. Fed. R. Civ. P. 26(a)(2)(B). Rule 26(e) requires litigants to supplement expert disclosures “in a timely manner if the party learns that in some material respect the disclosure or response is incomplete or incorrect.” Fed. R. Civ. P. 26(e). For experts like Dr. Ashok—that are required to submit a report under Rule 26(a)(2)(B)—this “duty to supplement extends both to information included in the report and to information given during the expert’s deposition. Any additions or changes to this information must be disclosed by the time the party’s pretrial disclosures under Rule 26(a)(3) are due.” Fed. R. Civ. P. 26(e)(2). In addition, the duty to supplement does not encourage abuse and “does not provide an opening for wholly new opinions.” *See Rowe Int’l Corp. v. Ecast, Inc.*, 586 F.Supp.2d 924, 933, n.1 (N.D. Ill. 2008) (citations omitted).

Federal Rule of Civil Procedure 37 provides a “safety-valve provision” for the additional information required by Rule 26(a) or (e) that allows a party to admit the information when it is “substantially justified or is harmless”. *See Rowe Int’l Corp.*, 586 F.Supp.2d at 934-35 (*citing*

Fed. R. Civ. P. 37(c)(1)). The Court has discretion in evaluating the four interrelated factors pertinent to this issue: “(1) the prejudice or surprise to the party against whom the evidence is offered; (2) the ability of the party to cure the prejudice; (3) the likelihood of disruption to the trial; and (4) the bad faith or willfulness involved in not disclosing the evidence at an earlier date.” *Ballard v. Zimmer, Inc.*, No. 11 C 6786, 2015 WL 110146, at *5 (N.D. Ill. Jan. 7, 2015) (citing *Tribble v. Evangelides*, 670 F.3d 753, 760 (7th Cir. 2012), *as amended* (Feb. 2, 2012)); *David v. Caterpillar, Inc.*, 324 F.3d 851, 857 (7th Cir. 2003).

The challenges presented by the Ashok Declaration and its connection to the underlying Wang Declaration ultimately stem from Sonix’s failure to obtain discovery from GeneralPlus and its—likely related—failure to provide Defendants with clarity regarding Sonix’s infringement positions disclosed in initial and final contentions. The Court first dealt with the impact of Sonix’s inaction when it granted in part Defendants’ motion for leave to amend their noninfringement contentions based on the new information Dr. Ashok provided during his July 15, 2015 deposition. (*See* R.170.) The Court granted Defendants’ motion, conditioned in part on the production of Mr. Wang, and all discoverable materials upon which he relied, for a deposition limited to the scope of his declaration. The Court did not, however, grant Sonix’s related requests to “reopen discovery and fully develop its own evidence including expert opinion testimony” on the invalidity issue, nor did it grant Sonix’s request to “reopen discovery regarding the operation of the accused products and further explore the information available to Defendants from GeneralPlus” on the infringement issue. (*See* R.164, at 12, 14.) Indeed, the Court repeatedly told Sonix that Defendants’ provision of Mr. Wang for a deposition was not an opportunity for Sonix to reopen discovery.⁵ (*See* R.177, Motion Hrg. Tr., Sept. 2, 2015, 6:12-16

⁵ Sonix admits that it took no independent steps during the present litigation to obtain foreign discovery from GeneralPlus, even though Sonix knew that GeneralPlus was a direct competitor with

(“You made a decision, either intentionally or unintentionally, not to pursue discovery from [GeneralPlus]. And this is not opening up discovery from them. You did not pursue anything against GeneralPlus, for whatever reasons. This is not the opportunity to do so”); *id.*, 6:25-7:2 (“I am not opening up discovery now for you to pursue everything against GeneralPlus that you did not pursue in the first instance”); *id.*, 7:18-19 (The Court: “...this is not the opportunity to reopen discovery that you did not pursue in the first instance”).

Sonix did not front the issue and the Court, therefore, did not contemplate the Ashok Declaration and its supplemental expert testimony in its order in granting limited discovery to Sonix based on the Wang Declaration. Indeed, prior to filing the Ashok Declaration, Sonix did not move for leave to do so under the Local Patent Rules or under Federal Rule of Civil Procedure 26(a), and on this basis alone, the Court could strike the Ashok Declaration. *See e.g., Carter v. Finely Hosp.*, No. 01 C 50468, 2003 WL 22232844, at *1 (N.D. Ill. Sept. 22, 2003) (holding defendant violated Rule 26(a) by disclosing supplemental expert opinions after the close of discovery and granting plaintiff’s motion to strike the opinion). Instead, Sonix surprised Defendants by simply filing its expert declaration along with its opposition to summary judgment. Defendants would suffer prejudice by the admission of the Ashok Declaration at this late stage. Defendants have not had an opportunity to depose Dr. Ashok on the new bases for his infringement opinions. The only cure for such prejudice calls upon the Court to do explicitly what it has told the parties it will not—reopen discovery. This is especially true here, where Dr. Ashok provides testimony on the ‘805 Patent and how its disclosure relates to the Accused Products and in order to address the prejudice, Defendants would not only need to depose Dr.

knowledge of the Accused Products and was located in a foreign country outside of the Court’s subpoena power. (*See* R.171, Motion Hrg. Tr., Aug. 12, 2015, 12:10-23; Stmt. of Undisputed Facts, ¶¶ 35, 36.)

Ashok, but also provide rebuttal reports from their own experts, beginning a cycle that essentially asks for fact and expert discovery to begin anew. Sonix, as the patentee, has the burden to prove infringement and, therefore, it is Sonix who bears the responsibility for not obtaining the desired GeneralPlus information during discovery. *See Exigent Tech., Inc. v. Atrana Sol., Inc.*, 442 F.3d 1301, 1307-08 (Fed. Cir. 2006) (explaining that it is the patentee who bears the burden of proof regarding infringement). For these reasons, the Court finds that supplementation of Dr. Ashok's report by way of the Ashok Declaration is not "substantially justified" or "harmless" under Rule 26(a) or (e) and the Court, therefore, grants Defendants' request to strike the Ashok Declaration.

In addition, Local Patent Rule 5.3, provides: "[a]mendments or supplementation to expert reports after the deadlines provided herein are presumptively prejudicial and shall not be allowed absent prior leave of court upon a showing of good cause that the amendment or supplementation could not reasonably have been made earlier and that the opposing party is not unfairly prejudiced." LPR 5.3. "The Rule provides for a presumption against supplementation of expert reports after the deadlines." *See Sloan Valve Co. v. Zurn Indus., Inc.*, No. 10 C 204, 2013 WL 3147349, at *2 (N.D. Ill. June 19, 2013); *see also Kruse Tech. P'ship v. Volkswagen AG*, 544 Fed. Appx. 943, 953-54 (Fed. Cir. 2013) (explaining that the Federal Circuit defers to the district court when interpreting and enforcing local rules "so as not to frustrate local attempts to manage patent cases according to prescribed guidelines").

Although Sonix did not file a motion for leave to supplement Dr. Ashok's opinions and reports in this case, the analysis under Local Patent Rule 5.3 is relevant to the issues before the Court. In addition to the fact that Sonix did not seek leave of Court to submit the Ashok Declaration, its admission at this stage, as discussed above, unfairly prejudices Defendants and

provides them no recourse to respond. Furthermore, although Defendants first disclosed the Wang Declaration—to which the Ashok Declaration responds—during summary judgment, the Court does not find that the Ashok Declaration “could not reasonably have been made earlier”. *See* LPR 5.3 (requiring a showing of good cause that the amendment or supplementation could not reasonably have been made earlier). The essence of the information disclosed in the Wang Declaration is the information regarding the function of the Accused Products—information that Sonix knew belonged to GeneralPlus, yet failed to independently pursue during discovery. The primary rationale for excluding untimely expert opinions is to avoid an unfair “ambush” in which a party advances new theories or evidence to which its opponent has insufficient time to formulate a response. *See Salgado v. Gen. Motors Corp.*, 150 F.3d 735, 742 (7th Cir. 1998);⁶ *see also Finley v. Marathon Oil Co.*, 75 F.3d 1225, 1230–31 (7th Cir. 1996) (experts’ new charts “disclosed only a few days before the start of the trial would have placed on [the opponent] a heavy burden of meeting the new evidence at trial with its own experts’ analysis”). Accordingly, the Court grants Defendants’ motion to strike the Ashok Declaration and does not consider it for the purposes of summary judgment.⁷

III. Relevant Facts

A. The Parties

Sonix is a company organized and existing under the laws of the country of Taiwan, having a principal place of business in Chupei City, Hsinchu, Taiwan. (Stmt. of Undisputed

⁶ Although the substantive law of the Federal Circuit applies to the patent issues in this case, the Court applies the Seventh Circuit precedent to procedural issues not unique to patent law. *See Vanguard Research, Inc. v. PEAT, Inc.*, 304 F.3d 1249, 1254 (Fed. Cir. 2002); *Wexell v. Komar Indus., Inc.*, 18 F.3d 916, 919 (Fed. Cir. 1994).

⁷ Although the Court does not ultimately rely on the Wang Declaration in its determination that the ‘845 Patent is invalid for indefiniteness, the discussion of the issues it presents provides an understanding of the evidentiary landscape with which the Court dealt.

Facts, ¶ 3.)⁸ Sonix manufactures integrated circuits and related products in Taiwan. (Stmt. of Addt'l Undisputed Facts, ¶ 16.)⁹ Sonix manufactures and sells integrated circuits and related products that use its patented dot decoding technology (referred to as “Chipsets”) exclusively to independent distributors in Hong Kong. (*Id.*)

Defendant PIL is a corporation organized and existing under the laws of the State of Illinois, having its principal place of business in Lincolnwood, Illinois. (*Id.*, ¶ 4.) Defendant SD-X is a corporation organized and existing under the laws of the State of Delaware, having its principal place of business in Lincolnwood, Illinois. (*Id.*, ¶ 5.) Defendant Britannica is a corporation organized and existing under the laws of the State of Delaware, having its principal place of business in Chicago, Illinois (*Id.*, ¶ 6.) Defendant Herff Jones is a corporation organized and existing under the laws of the State of Indiana, having its principal place of business in Indianapolis, Indiana, and doing business within this Judicial District. (*Id.*, ¶ 7.) The Court has subject matter jurisdiction over Sonix’s patent claims under 28 U.S.C. §§ 1331 and 1338, and venue is proper in this District pursuant to 28 U.S.C. §§ 1400(b) and 1391(c). (*Id.*, ¶ 8.)

B. The ‘845 Patent

The ‘845 Patent, entitled “Method for Producing Indicators and Processing Apparatus and System Utilizing the Indicators,” issued on February 12, 2008. (R.91-1, ‘845 Patent, at JA19.) The ‘845 Patent is directed to the use of graphical indicators affixed to the surface of an

⁸ Citations to “Stmt. of Undisputed Facts” refer collectively to Defendants’ Local Rule 56.1 Statement of Facts (R.157) and Plaintiff’s Responses (R.189). For purposes of clarity, the Court will use this citation reference where the fact preceding the citation is undisputed or admitted. “In determining what is disputed, we focus not only on whether the parties profess to dispute a fact, but also on the evidence the parties offer to support their statements. When we cite as undisputed a statement of fact that a party has attempted to disputed, that reflects our determination that the evidence does not show that the fact is in genuine dispute.” *Zitzka v. Vill. of Westmont*, 743 F.Supp.2d 887, 897 (N.D. Ill. 2010).

⁹ Citations to “Stmt. of Addt'l Undisputed Facts” refer collectively to Plaintiff’s Local Rule 56.1 Statement of Additional Facts (R.189) and Defendants’ Responses (R.198). For purposes of clarity, the Court will use this citation reference where the fact preceding the citation is undisputed or admitted.

object and negligible to the human eye that provide information, beyond the visual text and images on the object's surface, that is retrievable through an electronic system. (*Id.*, at JA1, abstract.) The specification describes a method for producing visually negligible dot patterns – referred to as “graphical indicators” – affixed to a surface (e.g., the page of a book), that overlap and co-exist, but do not interfere, with the main information on the surface of the object (e.g., visual text and images). (*See id.*, at JA19, col.2:55 – JA20, col.3:3.) As issued, the ‘845 Patent contained 51 claims generally directed to a processing system (Claims 1-32), an electronic apparatus (Claims 33-41), an image processing circuit (Claim 42), and a coordinate positioning system (Claims 43-51). (*See id.*, at JA23-26.)

The ‘845 Patent was the subject of two ex parte reexamination procedures with the United States Patent and Trademark Office (“PTO”), resulting in the issuance of Ex Parte Reexamination Certificates. (*See* Stmt. of Undisputed Facts, ¶¶ 11-17; R.91-1, at JA27-31; *see also* R.49, ¶ 13.) On January 19, 2011, Sunplus Technology Co., Ltd., (“Sunplus”) submitted a Request for Ex Parte Reexamination of Claims 1-51 of the ‘845 Patent to the PTO, alleging that a substantial new question of patentability existed. (Stmt. of Undisputed Facts, ¶ 11; *see also* R.92-1, at JA543; R.92-2, at JA89.) The PTO granted Sunplus’s request for ex parte reexamination. (*Id.*) In an Office Action mailed on April 14, 2011, the examiner rejected claims 1-5, 10, 14, 16-21, 26, 29, 31, 32, and 43-44 and confirmed the patentability of claims 15 and 39. (Stmt. of Undisputed Facts, ¶ 12; R.95-1, at JA1434.) Specifically, the PTO rejected claims 1-5, 10, 14, 16-21, 26, 29, 31, 32, and 43-44 under 35 U.S.C. § 102(b) as being unpatentable over either a Canadian patent, CA 2 374 808 (“Fahraeus”) alone or in view of various combinations with U.S. Patent No. 4, 604,065 (“Frazier”), U.S. Patent No. 4,869,532 (“Abe”), and/or U.S. Patent No. 5,866,895 (“Fukuda ‘895”). (Stmt. of Undisputed Facts, ¶ 12; R.95-1, at JA1444-46.)

The PTO interpreted Fahraeus as disclosing, among other things, a graphical indicator that is “visually negligible” and “a processing device that receives the image, processes the image and retrieves the graphical indicator from the image.” (Stmt. of Undisputed Facts, ¶ 12; R.95-1, at JA1436-37.) Relying on U.S. Patent No. 5,416,312 (“Lamoure”), the PTO rejected claims 1, 2, 4-8, 13, 14, 17-24, 30-32, 41, 43-45, 50, and 51 under 35 U.S.C. § 102(b) as anticipated by Lamoure. (Stmt. of Undisputed Facts, ¶ 12; R.95-1 at JA1444-46.) The PTO also rejected claims 7-9, 12, 22-23, 25, 28, 33, 40, 42, and 46-51 under 35 U.S.C. § 103(a) as being unpatentable over either Lamoure alone or in view of various combinations with Fukuda ‘250, Fahraeus, and/or Abe. (Stmt. of Undisputed Facts, ¶ 12; R.95-1, at JA1447-51.) The PTO issued an Ex Parte Reexamination Certificate for the ‘845 Patent on December 27, 2011 and confirmed patentability of Claims 9, 15, 25, 35-39, 46-49, and allowed Claims 52-90. (Stmt. of Undisputed Facts, ¶ 14; R.95-3, at JA1670-71.)

On January 26, 2012, GeneralPlus submitted a Request for Ex Parte Reexamination of Claims 9, 15, 25, 35-39, 46-49, and 52-90 of the ‘845 Patent to the PTO alleging that a substantial new question of patentability existed. (Stmt. of Undisputed Facts, ¶ 15; R.96-1, at JA1673.) In an Office Action mailed on March 19, 2012, the PTO rejected Claims 9, 15, 25, 35-39, 46-49 and 52-90. (Stmt. of Undisputed Facts, ¶ 16; R.97-4, at JA2038.) Specifically, the PTO rejected claims 9, 25, 46, 52-62, 65-67, 69-80, and 84-90 under 35 U.S.C. § 103(a) as being unpatentable under Lamoure and U.S. Patent No. 5,329,107 (“Priddy”). (Stmt. of Undisputed Facts, ¶ 16; R.97-3, at JA2040.) The PTO also rejected Claims 15 and 39 under 35 U.S.C. § 103(a) as being unpatentable over Lamoure and Frazer and Claims 35-38, 47-49, 63, 64, 68, and 81-83 under 35 U.S.C. § 103(a) as being unpatentable over Lamoure, Priddy and Frazer. (Stmt. of Undisputed Facts, ¶ 16; R.97-3, at JA2040-41.) The PTO issued a second Ex Parte

Reexamination Certificate for the '845 Patent on December 26, 2012 and confirmed patentability of Claims 9, 15, 25, 35-39, 46-49, and cancelled Claims 15 and 39. (Stmt. of Undisputed Facts, ¶ 17.)

C. The Dispute

On March 18, 2013, Sonix filed its Complaint against PIL and SD-X, alleging infringement of one or more claims of U.S. Patent No. 7,328,845 (“the ‘845 Patent”). (Stmt. of Undisputed Facts, ¶ 1; R.1, Compl., ¶¶ 14-18.) On September 17, 2013, Sonix filed its First Amended Complaint naming two additional Defendants, Britannica and Herff Jones, alleging that Defendants infringed one or more claims of the ‘845 Patent in violation of 35 U.S.C. § 271(a). (Stmt. of Undisputed Facts, ¶ 2; R.49, First Am. Compl., ¶¶ 16-20.) In addition, Sonix alleged that Defendants PIL and SD-X infringed one or more claims of the ‘845 Patent in violation of 35 U.S.C. § 271(b). (R.49, ¶¶ 21-29.) Sonix also alleged that Defendant PIL was liable as the alter-ego of SD-X for the damages suffered by Sonix. (*Id.*, ¶¶ 30-34.) On October 11, 2013, Defendants filed their Answer, Counterclaims and Affirmative Defenses to Sonix’s Complaint. (R.57, PIL’s Answer; R.58, SD-X’s Answer; R.59, Encyclopaedia Britannica’s Answer; R.60, Herff Jones’ Answer.) Relevant to this summary judgment motion, Defendants asserted affirmative defenses of non-infringement, invalidity, and damages limitations, and Defendants PIL, SD-X, and Britannica asserted counterclaims of non-infringement and invalidity. (*See generally*, R.57, R.58, R.59, R.60.) The claims of the ‘845 patent that are currently at issue are Claims 9, 25, 35-36, 52-55, 57-60, 62-64, 66, 68, 71-77, 79-82, 85-90. (Stmt. of Undisputed Facts, ¶ 9.) Sonix has limited its claims of infringement to literal infringement. (*Id.*, ¶ 34.)¹⁰

¹⁰ Sonix’s response that this fact is disputed and that it “has reserved its right to rely on the doctrine of equivalents to establish infringement of any asserted claim to the extent that information

D. Sonix's Lack of Discovery Efforts

Sonix knew as early as 2007-2008 that GeneralPlus provided solutions in the marketplace that competed with Sonix's dot pattern technology. Sonix's 30(b)(6) witness, Ching Fun Pang, testified that Sonix knew as early as 2010 that PIL was considering using GeneralPlus as a vendor for its products and that potential claims of infringement relating to PIL using GeneralPlus as a vendor may exist. (Stmnt. of Undisputed Facts, ¶ 35.) In November 2013, Defendants disclosed to Sonix that they imported, sold, or offered for sale, the accused products pursuant to a license from GeneralPlus. (*Id.*, ¶ 36.) In February 2014, during fact discovery, when asked to identify the persons most knowledgeable about how the accused products operated, Defendants advised Sonix that "the persons most knowledgeable to the topics identified in this Interrogatory are employed by GeneralPlus." (*Id.*, ¶ 37.) Defendants again advised Sonix, in October 2014, that GeneralPlus possesses the information regarding the functionality of the technology at issue and stated "it previously identified the persons most knowledgeable to the topics identified in this Interrogatory are employed by GeneralPlus, and that PIL does not have any input into the technology." (*Id.*, ¶ 38.)

Prior to the close of fact and expert discovery, in January 2015, Defendants again disclosed that they expected to elicit testimony from employees of GeneralPlus to support its defenses as Defendants expressly disclosed that employees of GeneralPlus have knowledge

gathered through discovery necessitates the assertion of the doctrine of equivalents" is insufficient to create a genuine issue of material fact on summary judgment as the response is unsupported and discovery has closed. In addition, Sonix asserted only literal infringement in its Final Contentions and stated that it "is not presently relying on the doctrine of equivalents to establish infringement of any claim of the patent-in-suit." (R.158-20, Pl.'s Final Infringement Contentions Re: Defendants Britannica and Herff, at 4; R.158-20, Pl.s Final Infringement Contentions Re: Defendants PIL and SD-X, at 7.) Even in Sonix's Motion for Leave to Amend its Infringement Contentions (R.200), filed prior to the Court's ruling on summary judgment, Sonix does not move to amend its contentions to include the doctrine of equivalents and indeed, makes no reference to the doctrine in its motion or supporting arguments.

concerning the function and operation of PIL and SD-X electronic products, including certain POINGO products and dot patterns used in associated books. (Stmnt. of Undisputed Facts, ¶ 39.) Fact discovery closed on March 2, 2015 (with minor exception for previously-noticed depositions) and all expert discovery closed on July 22, 2015. (*Id.*, ¶ 40.) Sonix did not seek discovery from GeneralPlus in this case and did not undertake any investigation to reveal the content of the software, including informally asking GeneralPlus about its source code, investigating GeneralPlus' patent portfolio regarding dot-based technology, attempting to reverse engineer the code, or reviewing any pseudo-code used in the accused products. (*Id.*, ¶ 63.) Neither Sonix nor its expert has any information about any pseudo-code or algorithm description for the operation of GeneralPlus products including a dot-based system. Sonix never sought or obtained "any non-public information about the operation of GeneralPlus[]" products with a dot-based system" and Dr. Ashok did not list any source code or other descriptive document of the software functionality in the accused products in his report. (*Id.*, ¶ 64.)

SUMMARY JUDGMENT STANDARD

Summary judgment is appropriate where the admissible evidence shows that no genuine dispute exists as to any material fact and the movant is entitled to judgment as a matter of law. *See* Fed. R. Civ. P. 56(a). "A 'material fact' is one identified by the substantive law as affecting the outcome of the suit." *Bunn v. Khoury Enters., Inc.*, 753 F.3d 676, 681 (7th Cir. 2014) (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986)). "A 'genuine issue' exists with respect to any such material fact, and summary judgment is therefore inappropriate, when 'the evidence is such that a reasonable jury could return a verdict for the nonmoving party.'" *Id.* Conversely, "where the factual record taken as a whole could *not* lead a rational trier of fact to find the nonmoving party, there is nothing for a jury to do." *Bunn*, 753

F.3d at 682 (citing *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587, 106 S.Ct. 1348, 89 L.Ed.2d 538 (1986) (emphasis in original)).

In determining whether a genuine issue of material fact exists, the Court construes the evidence and all inferences that reasonably can be drawn therefrom in the light most favorable to the nonmoving party. *See Bunn*, 753 F.3d at 682 (citing *Anderson*, 477 U.S. at 255); *see also Kvapil v. Chippewa County, Wis.*, 752 F.3d 708, 712 (7th Cir. 2014). However, “[t]he mere existence of *some* alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment.” *Anderson*, 477 U.S. at 248 (emphasis in original). In reviewing evidence opposing a motion for summary judgment, courts are not obliged to entertain a “metaphysical doubt.” *Matsushita*, 475 U.S. at 586. The Court will enter summary judgment against a party who does not “come forward with evidence that would reasonably permit the finder of fact to find in [its] favor on a material question.” *Modrowski v. Pigatto*, 712 F.3d 1166, 1167 (7th Cir. 2013). With these standards in mind, the Court addresses Defendants’ motion.

ANALYSIS

I. “Visually Negligible” Is Indefinite

Although the parties originally identified the “visually negligible” term as disputed, prior to the Court’s claim construction ruling, the parties agreed that the term did not require construction and should be given its ordinary meaning. *See Sonix Tech. Co., Ltd. v. Publications Int’l, Ltd.*, No. 13 C 2082, 2014 WL 5489353, at *10, n.4 (N.D. Ill. Oct. 30, 2014); (Stmt. of Addt’l Undisputed Facts, ¶ 5d). The Court’s claim construction ruling, therefore, did not address the “visually negligible” claim term.

Defendants amended their invalidity contentions to assert the indefiniteness of “visually negligible” after Sonix’s rebuttal invalidity expert, Dr. Amit Ashok, raised new assertions opining that certain prior art dot patterns failed to meet the claim element because they “tend to make the pattern more noticeable to the reader” and are “visually intrusive”. (Stmt. of Undisputed Facts, ¶¶ 20, 21.) Defendants argue that the term “visually negligible” is, by its nature, a term of degree because its scope depends on the desired functional result of some reduced visibility of the graphical indicator. Defendants further contend that a completely invisible dot pattern may be “visually negligible”, but above that threshold the scope of the claim term depends on whether an accused “graphical indicator” is sufficiently non-visible to be “visually negligible”. The scope of that term, Defendants assert, is therefore ambiguous and lacks an objective standard against which the person of ordinary skill in the art can measure it. Sonix admits that “the term lacks ‘a technical standard’ and is at least somewhat subjective”, but argues that at the same time “the general population would be very close to a standard threshold.” (*See* R.188, at 3.) Sonix further asserts that a “visually negligible” graphical indicator refers to something that may be visible, but does not interfere with the user’s perception of other visual information on a surface.

A. Indefiniteness

The Patent Act requires that a patent specification “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 (2006 ed.).¹¹ A patent claim is invalid for indefiniteness if

¹¹ The America Invents Act (“AIA”) replaced 35 U.S.C. § 112, ¶ 2 with newly designated § 112(b) for applications filed on or after September 16, 2012. *See Alcon Res. Ltd. v. Barr Labs.*, 745 F.3d 1180, 1183, n.1 (Fed. Cir. 2014) (explaining that Paragraph 1 of 35 U.S.C. § 112 was replaced with newly designated § 112(a) by § 4(c) of the AIA, Pub. L. No. 112–29, and AIA § 4(e) makes those changes applicable “to any patent application that is filed on or after” September 16, 2012). Because the ‘845 Patent was filed in 2002, the Court evaluates these claims under the pre-AIA version of §112. *See*

its language, when read in light of the specification and the prosecution history, “fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc., v. Biosig Instr., Inc.*, ___ U.S. ___, ___, 134 S.Ct. 2120, 2124, 189 L.Ed.2d 37 (2014). In evaluating the definiteness requirements, courts must (1) evaluate from the perspective of someone skilled in the relevant art, (2) read the claims in light of the patent’s specification and prosecution history, and (3) measure the viewpoint of a person skilled in the art as of the effective filing date. *Id.* at 2128. The “delicate balance” of the definiteness requirement “‘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, 1369 (Fed. Cir. 2014) (citing *Nautilus*, 134 S.Ct. at 2128, 2129); *see Interval Licensing*, 766 F.3d at 1369 (explaining how *Nautilus* found the Federal Circuit’s characterization of indefiniteness by “insolubly ambiguous” and “amendment to construction” expressions “more amorphous than the statutory definiteness requirement allows”). “[T]he certainty which the law requires in patents is not greater than is reasonable, having regard to their subject matter.” *Nautilus*, 134 S.Ct. at 2130 (citing *Minerals Separation, Ltd. v. Hyde*, 242 U.S. 261, 270, 37 S.Ct. 82, 61 L.Ed.286 (1916)); *see also Markman v. Westview Instr., Inc.*, 517 U.S. 370, 389, 116 S.Ct. 1384, 134 L.Ed.3d 577 (claim construction calls for “the necessarily sophisticated analysis of the whole document,” and may turn on evaluations of expert testimony”). “The claims, when read in light of the specification and prosecution history, must provide objective boundaries for those of skill in the art.” *Interval Licensing*, 766 F.3d at 1371 (citing *Nautilus*, 134 S.Ct. at 2130 & n. 8 (indicating that there is an indefiniteness problem if the claim language “might mean several different things

Media Rights Techs, Inc. v. Capital One Fin. Corp., 800 F.3d 1366, 1370, n.1 (Fed. Cir. 2015) (applying the pre-AIA version of § 112 to a patent filed before the September 16, 2012 effective date).

and ‘no informed and confident choice is available among the contending definitions’”)); *see also id.*, 766 F.3d at 1371 (citing *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1251 (Fed. Cir. 2008) (explaining that a claim term’s definition that can be reduced to words can still render the claim indefinite “if the person of ordinary skill in the art cannot translate the definition into meaningfully precise claim scope.”)). The party alleging indefiniteness under Section 112 must prove by clear and convincing evidence that the challenged claims of the patent are indefinite. *See Nautilus*, 134 S.Ct. at 2130, n.10; 35 U.S.C. § 282(a) (“A patent shall be presumed valid”).

In conducting this inquiry, a court may make findings of fact regarding indefiniteness, but indefiniteness remains a matter of law. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, ___ U.S. ___, 135 S.Ct. 831, 841, ___ L.Ed.2d ___ (2014); *Brown v. Baylor Healthcare Sys.*, 381 Fed. Appx. 981, 982 (Fed. Cir. 2010) (“Indefiniteness under 35 U.S.C. § 112, ¶ 2 is [] a matter of law ...”); *see also Fujitsu Ltd. v. Tellabs Ops., Inc.*, 782 F.Supp.2d 635, 644-45 (N.D. Ill. 2011) (explaining indefiniteness is determined by the court as a matter of law).

B. The ‘845 Patent

The ‘845 Patent is directed to the use of graphical indicators affixed to the surface of an object and negligible to the human eye that provide information, beyond the visual text and images on the object’s surface, that is retrievable through an electronic system. (R.91-1, at JA1, abstract.) The specification describes a method for producing visually negligible dot patterns – referred to as “graphical indicators” – affixed to a surface (e.g., the page of a book), that overlap and co-exist, but do not interfere, with the main information on the surface of the object (e.g., visual text and images). (*See id.*, at JA19, col.2:55 – JA20, col.3:3.)

1. The Intrinsic Evidence

All of the claims currently at issue—Claims 9, 25, 35-36, 52-55, 57-60, 62-64, 66, 68, 71-77, 79-82, 85-90—require a “graphical indicator” to be “visually negligible”. (Stmt. of Undisputed Facts, ¶¶ 9, 18.) The term “visually negligible” modifies the graphical indicator found in the image viewed by the user. (See R.91-1, at JA23-25 (Claims 1, 18, 33, and 43).)

The “Summary of the Invention” and the “Detailed Description of the Preferred Embodiment” provide an explanation of “visually negligible”, stating:

Some visually negligible graphical indicators are affixed on the surface of an object. The graphical indicators co-exist with main information, such as a text or picture, on the surface of object, and do not interfere with the perception of human eyes to the main information.

(R.91-1, JA19, col.1:49-54; *id.*, col.2:59-64.) The specification goes on to provide example designs for the graphical indicators, which “are so visually negligible that [they] do not interfere with the main information on the surface of the object.” (R.91-1, at JA20, col.3:6-9; Stmt. of Addt’l Undisputed Facts, ¶ 1c; R.91-1.) An example of a visually negligible graphical indicator layout is provided by Fig. 1(A), “a schematic diagram illustrating the graphical indicators on the surface of object in accordance with the present invention.” (R.91-1, at JA19, col.2:3-5.) Figure 1(a) is shown below:



Fig.1(A)

As described in the specification:

Shown in FIG 1(A), which has scale of 2.5:1, the combination **100** of the graphical micro-units in a background to “APPLE” is the matrix consisting of

graphical micro-units. The micro-units can be reduced further such that the combination **100** of the graphical micro-units is visually negligible or is viewed as a background material by human eyes.

In practical application, the shape of the graphical micro-units may be regular or irregular shape, such as a round spot. For best result[s], the graphical micro-unit must be so tiny that only a microscope apparatus can detect it.

When the graphical micro-units are tiny and arranged loosely in the layout, the user easily neglects the combination **100** of graphical micro-units and pays attention to main information, like the word “APPLE” depicted in FIG. 1(A).

(R.91-1, at JA20, col.3:12-29.)

There are requirements for the graphical indicators being negligible to human eyes. First, each graphical indicator must be tiny and human eyes can not [sic] differentiate one graphical indicator from others. Second, according to the size of the graphical micro-unit, the pitch between micro-unit, and the desired visual effect, one should reduce the number of the graphical micro-units used. In this way, the graphical indicators have little influence on the brightness of the surface of [the] object. Furthermore, [the] number of graphical micro-units of each graphical indicator is substantially equal to each other, and therefore the graphical indicators look more homogenous to human eyes and become invisible to human eyes.

(*Id.*, col.4:60 – JA21, col.5:5.) The specification also provides two embodiments providing for 3000 and 6000 state zones, respectively, in each square centimeter of the selected zone, and further specifying that for both embodiments the state zones have “less than [70%] in the first state, and [the] percentage of area occupied by the graphical micro-unit in the state zone is less than 80[%].” (*Id.*, at JA21, col.5:6-15.)

During prosecution of the ‘845 Patent, the PTO found that the allowable features of the claims during prosecution “were that none of the art had an optical device to capture an image from a zone of a surface of an object, where the image is visually negligible and includes a graphical indicator.” (R.95-1, at JA1417.) During the first ex-parte reexamination, the PTO found that substantial new questions of patentability existed with respect to the ‘845 Patent claims based on the PTO’s interpretation of prior art that disclosed, *inter alia*, graphical

indicators that were “visually negligible”. Specifically, the PTO interpreted a prior art Canadian patent, CA 2 374 808 (“Fahraeus”), and U.S. Patent No. 5,416,312 (“Lamoure”), as disclosing graphical indicators that are, *inter alia*, “visually negligible”. (R.95-1, at JA1436-37; *id.*, at JA1444.) Sonix did not distinguish these references on the basis of their visual negligibility. Instead, it argued that the graphical indicators of Fahraeus and Lamoure have position dependent codes that are “unable to account for orientation.” (*Id.*, at JA1460-61.) Sonix further distinguished Lamoure based on its teaching of a single spacing solution to the problem of differentiating between closely spaced indexes on a sheet and further noted that Lamoure did not conceive of a “header ... to differentiate among multiple indexes in the field of view of the optical reader. (R.95-2, at JA1553-54.) The first Ex Parte Reexamination Certificate for the ‘845 Patent issued on December 27, 2011 (R.95-3, at JA1670-71.)

During the second ex parte reexamination, the PTO rejected the ‘845 Patent claims based on U.S. Patent No. 5,329,107 (“Priddy”), U.S. Patent No. 4,604,065 (“Frazer”) and Lamoure. (R.96-1, at JA1687.) In arguing against the rejection under 35 U.S.C. § 103 as unpatentable over the combination of Priddy with Lamoure, Sonix stated that the combination did not provide a “visually negligible” matrix:

To be visually negligible, a dot pattern superimposed over text and/or graphics must co-exist with such text and graphics and must not interfere with the viewer’s perception of the text and graphics. *See* ‘845 patent, Col. 1, ll. 49-54; Col. 2, ll. 59-64; Col. 3, ll. 5-8. A person of ordinary skill in the art (such as Lamoure) would recognize that Priddy teaches a matrix that is by definition highly anisotropic with areas of very high density, and potentially of very high density. The predictable result of combining Lamoure and Priddy is a pattern that is not visually negligible, but rather substantially interferes with the text and images on the surface.

(R.97-4, at JA2056.) In support of this position, Sonix submitted the Sejersen Affidavit, illustrating the effect of using a “Priddy Perimeter.” (*Id.*, at JA2064-71.) Mr. Sejersen concluded:

[A] person of ordinary skill in the art would not use a Priddy matrix or any dot pattern containing the Priddy Perimeter to create a pattern that could be superimposed over text or graphics. A pattern made using a Priddy matrix or a dot pattern containing a Priddy Perimeter would be unsuitable for such a purpose because it would interfere with the viewer’s perception of the text and/or graphics and would not be visually negligible.

(*Id.*, at JA2071.) Sonix further distinguished Priddy on the basis that it failed to teach “using the perimeter of the matrix to distinguish one matrix from an adjacent matrix.” (*Id.*, at JA2059.)

The second Ex Parte Reexamination Certificate for the ‘845 patent issued on December 26, 2012. (*Id.*, at JA2127-28.)

2. The Extrinsic Evidence

Both Sonix’s expert, Dr. Ashok, and Defendants’ expert, Dr. Engels, applied the term “visually negligible” in their expert reports. (Stmt. of Addt’l Undisputed Facts, ¶ 2c.)

Dr. Ashok applied the term in distinguishing the ‘845 Patent’s claims over the prior art. Specifically, Dr. Ashok based his opinion regarding infringement of the “visually negligible” element “on my inspection, visual inspection” and testified that “it crosses my threshold.” (Stmt. of Undisputed Facts, ¶ 24.) Dr. Ashok opined that dot matrix codes and bar codes—the ‘845 Patent specification referring to the “present invention” as a “substitute for bar codes”—are intentionally “visually intrusive.” (*Id.*; R.91-1, at JA23, col.9:46-59.) He also opined that the Lamoure prior art reference’s use of mandatory spacing appears to create a non-isotropic pattern that may render the pattern “visually intrusive.” (Stmt. of Undisputed Facts, ¶ 20.) Dr. Ashok opined that Lamoure has changes in density that “will tend to make the pattern more noticeable to the reader, resulting in patterns that are not visually negligible.” (*Id.*)

Dr. Ashok also relied on the “visually negligible” claim term in his infringement report and stated that “the term ‘visually negligible’ means that the dots (or micro-units) printed on the surface do not interfere with the visually significant text and images—referred to in the ‘845 Patent as ‘main information’—on the surface.” (R.184-3, Ex. D, Ashok Infringement Report, at 18.) In stating his opinion of infringement, Dr. Ashok stated:

The dot patterns printed on the Accused Products are visually perceptible to a degree if one views the printed material very carefully at close distance in the proper lighting, but they do not interfere at all with the user’s perception of the text and images on the surface. A typical user is unlikely to even notice and would not pay any attention to these background patterns on the pages of the various books and globes in question when they are viewing the text and images. Thus, it is my opinion that the dot patterns printed on all of the Accused Products satisfy the claim requirement that they be “visually negligible.”

(*Id.*, at 19.) Dr. Ashok testified that the ‘845 Patent’s example densities were not a “universal standard by any means because it depends on the visual acuity of the observer.” (Stmt. of Undisputed Facts, ¶ 22.) He further stated, “I would imagine that would be representative of most people looking at it.” (*Id.*) In response to whether it was “fair to say what might be visually negligible to one person might not be to another person”, Dr. Ashok testified “I would say some people may be able to have a lower threshold, but the general population would be very close to a standard threshold. I don’t know what that may be, but I would imagine there would be such a threshold.” (*Id.*, ¶ 23; Stmt. of Addt’l Undisputed Facts, ¶ 2.) Dr. Ashok did not conduct any independent studies to determine what a typical user or the person of ordinary skill would consider to be visually negligible. (Stmt. of Undisputed Facts, ¶ 26.) When asked to provide examples of “visually negligible”, Dr. Ashok shared his belief that the ‘845 Patent had some example densities of a dot pattern, and that he believed those densities to be “visually negligible”. (*Id.*, ¶ 27.)

Dr. Engels, Defendants' liability expert, also applied the term "visually negligible" in his invalidity and non-infringement expert reports. In his opening invalidity expert report, for example, Dr. Engels discussed Lamoure, stating that "Lamoure discloses using the ink dots on the page to store a value that is used as an index to access a computer database ... Each ink dot is between 50 μ m and 100 μ m in diameter. ... At this size, each dot is on the size order of tens of micro-meters and is clearly a micro-unit that is a visually negligible feature." (*See* R.153-17, ¶ 85; *id.*, ¶ 48 (describing Lamoure as disclosing printing groups of dots that "can be printed in a density and size such that they would be visually negligible"); *see also id.*, ¶¶ 50, 102, 103, 151, 171, 177, 196.) Dr. Engels also opined in his Responsive Expert Report that "visually negligible" as defined by the '845 Patent means "co-existing with main information, such as text or picture, on the surface of an object and not interfering with the perception of human eyes to the main information." (R.164-3, ¶ 142.) Based on this definition, Dr. Engels agreed that "the dot patterns in the specific products reviewed by Dr. Ashok in his Report are visually negligible" (*Id.*, ¶ 144.) Dr. Engels does not agree, however, that the same is true for all the Accused Products because "Dr. Ashok has not examined all of the Accused Products, and he has provided no factual evidence to support his opinion that all of the Accused Products meet these claim limitations." (*Id.*, ¶ 145.) At his deposition, Dr. Engels agreed with Dr. Ashok that the term "visually negligible" is subjective, and that no objective test exists to define the boundary between visually negligible and visually non-negligible. (Stmnt. of Undisputed Facts, ¶ 33; R.158-11, Engels Deposition Rough Tr., at 15-16.)

C. “Visually Negligible” is Indefinite

1. The Intrinsic Evidence Lacks the Necessary Guidance for the Person of Ordinary Skill

The claim language simply refers to “visually negligible” and provides no further guidance on the meaning of that term.¹² The Court must, therefore, look to the written description for guidance of this, otherwise, purely subjective claim term. The specification, however, also fails to provide the person of ordinary skill in the art with a meaning that is reasonably certain and defines the objective boundaries as to the scope of “visually negligible” as used in the ‘845 Patent. *See Interval Licensing*, 766 F.3d at 1371. Sonix contends that the term on its face refers to something that may be visible, but does not interfere with the user’s perception of other visual information on a surface. (R.188, at 3.) Sonix further asserts that this concept of “non-interference” with main information is maintained consistently throughout the specification. (*Id.*) The problem with Sonix’s definition, however, is that even if a claim term can be defined, it can still be found indefinite “if a person of ordinary skill in the art cannot translate the definition into meaningfully precise claim scope.” *See Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1251 (Fed. Cir. 2008); *see also Nautilus*, 134 S.Ct. at 2130 (“It

¹² At oral argument, Sonix raised new arguments related to the relationship between the independent claims reciting “visually negligible” and some of the dependent claims. The Court does not consider these arguments here. *See Hernandez v. Cook Cnty. Sherriff’s Office*, 634 F.3d 906, 913 (7th Cir. 2011) (citations omitted) (explaining that arguments made for the first time in reply are treated as waived based on the underlying concern of ensuring the opposing party is not prejudiced by being denied sufficient notice to respond); *see also Darif v. Holder*, 739 F.3d 329, 336 -337 (7th Cir. 2014). Even if the Court did consider Sonix’s arguments, however, it finds the dependent claims to which Sonix referred (Claims 60 and 77) do not provide guidance for the limitations of the scope of “visually negligible” because while they may provide limitations for the number of state zones or percentage of area occupied by the graphical micro-unit in the examples covered by those claims, they do not provide the person of ordinary skill with reasonable certainty as to the edges of the broader scope for those parameters in the independent claims which embody scope outside of the specified limitations of the dependent claims. *See Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007) (“Since independent claims are presumed to have broader scope than their dependents ...”).

cannot be sufficient that a court can ascribe *some* meaning to a patent’s claims ...”) (emphasis in original). Even if consistently used in the patent specification, defining “visually negligible” as reliant on the user’s perception provides no objective standard by which to measure the scope of the term—the user’s perception becomes the measure and this is insufficient. *See Datamize*, 417 F.3d at 1350 (explaining that a term of degree fails to provide sufficient notice of scope if it depends “on the unpredictable vagaries of any one person’s opinion”). Whether something “interferes” with a user’s perception of an image depends on the visual acuity and desired visual preferences of any single user interacting with the image.

The specification lacks guidance that would otherwise provide one of skill with reasonable certainty of the claim scope. The specification suggests that “for best result[s]”, the graphical micro-units “must be so tiny that only a microscope apparatus can detect it.” (*See* R.91-1, at JA20, col.3:24-25.) It contains no information, however, regarding what type of microscope apparatus or what level of magnification the user would need to use in order to qualify as detection. The specification also suggests that in order for the user to pay attention to the main information and “easily neglect[] the combination of graphical micro-units”, the micro-units should be “tiny and arranged loosely in the layout.” (*See id.*, col. 3:26-31.) The specification refers to Figure 1(A) as an example. (*Id.*) Figure 1(A) is a schematic drawing that shows the word “APPLE” printed on top of graphical indicators with a magnification of 2.5 times the reader’s perspective. (R.91-1, at JA3; *id.*, at JA20, col.3:15-18; *see* Nov. 10, 2015 Summary Judgment Hrg. (“Nov. 10, 2015 Hrg.”), at 33-34.) The example provided in Figure 1(A) is simply that—an illustration of a graphical indicator that the ‘845 Patent describes as “visually negligible”. (R.91-1, at JA20, col.3:4-21.) The example does not, however, provide guidance beyond this single illustration as to the scope of the “visually negligible” term.

The ‘845 Patent specification lists “requirements” for graphical indicators to be negligible, yet these requirements also fail to provide the necessary guidance. It discloses three requirements dealing with size, number, and proportion,¹³ but the disclosure lacks the necessary detail to make the requirements meaningful or to provide the person of ordinary skill with reasonable certainty of the scope of the claim’s term beyond the requirements. The first requirement of size merely commands that the graphical indicators “must be tiny and human eyes cannot differentiate” between them. (*See* R.91-1, at JA20, col. 4:61-63.) The second requirement of number provides nothing more than the general statement that based on “the size of the graphical micro-unit, the pitch between micro-unit[s], and the desired visual effect, one should reduce the number of [] graphical micro-units used.” (*Id.*, col. 4:63-66.) The specification further states that the number of graphical micro-units of each graphical indicator are “substantially equal to each other, and therefore the graphical indicators look more homogenous to human eyes and become invisible to human eyes.” (*Id.*, at JA21, col.5:1-5.) The ‘845 Patent specification then provides two “visually negligible” embodiments that have (1) a minimum of 3000 or 6000 state zones per square centimeter, (2) less than 70% of the state zones in the first state (i.e., filled with a graphical micro-unit) and (3) graphical micro-units that occupy less than 80% of the state zone. (*Id.*, at JA21, col.5:6-15.)

Sonix does not advocate for a claim construction that is limited to these embodiments. Indeed, Sonix adamantly stated that the claims are not limited to the factors listed in the two

¹³ While Sonix originally relied on the specification’s disclosure of ink choice as a parameter related to the “visually negligible” claim term, Sonix admitted at oral argument that this discussion in the specification was inapplicable as it is “directed more to a separate issue than to visual negligibility. The issue of ink selection is relevant to visual negligibility in the sense that you can choose inks that may or may not be more or less visually prominent.” (Nov. 10, 2015 Hrg., at 46-47.) Because the specification does not provide meaningful guidance on the ink choice to the person of ordinary skill looking to design a “visually negligible” graphical indicator, the Court does not consider it here.

embodiments. (Nov. 10, 2015 Hrg., at 39-40.) While illustrative of “visually negligible” graphical indicators, the embodiments are not limitations of the claim and therefore, do not help to define the claim’s objective boundaries because they leave open the question of what else would suffice as “visually negligible”. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (citations omitted) (“although the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments”); *see also Akamai Techs., Inc. v. Limelight Networks, Inc.*, ___ F.3d ___, 2015 WL 7148812, at *5 (Fed. Cir. Nov. 16, 2015) (*citing Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1117 (Fed. Cir. 2004) (“even where a patent describes only a single embodiment, claims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction”). Indeed, the specification later states “[t]hose skilled in the art will readily observe that numerous modifications and alterations of the device may be made while retaining the teaching of the invention. Accordingly, the above disclosure should be construed as limited only by the metes and bounds of the appended claims.” (R.91-1, at JA23, col.10:14-18.) The specification leaves open the question of claim scope for the person of ordinary skill designing a “visually negligible” graphical indicator that does not follow the recipes provided by the two embodiments. In other words, if operating outside of the embodiments’ parameters, there is no measure by which one of skill in the art can determine whether the graphical indicators are indeed “visually negligible.” As argued by Sonix, whether a particular pattern is “visually negligible depends on a variety of factors. It may be impacted by the type of paper. It may be impacted by other things. It can be affected by the sheen of the paper. It can be affected by the size of the dots, the arrangement of the dots.” (Nov. 10, 2015 Hrg., at 39.)

While the ‘845 Patent specification discloses a few particular examples that include some, but not all, of these factors, the specification does not provide guidance to the person of ordinary skill as to which factors affect visual negligibility and how to assess whether a potentially infringing product may meet the limitations of the claim—at least, nothing that provides guidance to avoid the ultimate question that the answer is left to the subjective perception of each user. The prosecution and reexamination of the ‘845 Patent do not provide any additional guidance other than to observe that combinations of prior art patterns upon which the examiner relied in rejecting the claims produce “a pattern that is not visually negligible, but rather substantially interferes with the text and images on the surface.” (R.97-4, at JA2056.) The Sejersen declaration provides no additional guidance as it simply concludes that “[a] pattern made using a Priddy matrix or a dot pattern containing a Priddy Perimeter would be unsuitable for such a purpose because it would interfere with the viewer’s perception of the text and/or graphics and would not be visually negligible.” (*Id.*, at JA2071.)

2. The Extrinsic Evidence Demonstrates the Difficulty in Application of “Visually Negligible”

The intrinsic evidence is clear that the term “visually negligible” is dependent on the subjective choice of the user and while specific examples are provided, these examples are not limitations of the claim and do not provide boundaries for the broader claim scope. The extrinsic evidence, while not necessary for the Court’s consideration here, highlights the problem with the subjective nature of the “visually negligible” claim term.

Even though the parties’ experts apply the term “visually negligible” to the prior art, for example, they have no standard by which to measure beyond their subjective belief and they, unsurprisingly, disagree in their ultimate opinions. Defendants’ expert, Dr. Engels, opines that Lamoure discloses a “visually negligible” dot pattern, whereas Dr. Ashok opines that Lamoure’s

dot patterns are not visually negligible and are instead “visually intrusive.” (*See e.g.*, R.153-17, ¶ 85; Stmt. of Undisputed Facts, ¶ 20.) While it is not uncommon for experts to disagree, the experts provide no guidance to assess which testimony to credit or disregard. The experts seem to agree on one point, however, that the measure of “visually negligible” is subjective and that no objective test exists to define the boundaries between visually negligible and visually non-negligible. (Stmt. of Undisputed Facts, ¶ 33.)

As Sonix’s infringement expert admits, an objective standard is missing and ultimately the determination of whether a dot pattern is “visually negligible” falls to the perception of the user. Indeed, Dr. Ashok’s infringement opinion relies on a hypothetical situation where “one views the printed material *very carefully at close distance in the proper lighting.*” (R.184-3, at 19.) Dr. Ashok does not, however, provide any parameters as to what it means to look very carefully at the image or what the lighting conditions and viewing distance should be. (*See id.*, at 19.) Dr. Ashok further relies on the perspective of “a typical user” but admits that he did not conduct any independent studies to confirm what is visually negligible to the typical user. (Stmt. of Undisputed Facts, ¶ 26.) Furthermore, later in Dr. Ashok’s infringement report he refers to the graphical micro-units that are “so small that they are barely perceptible to the naked eye, but when magnified they are clearly small dots printed on the surface of the page”. (R.184-3, at 22.) Again, Dr. Ashok provides no guidance as to the visual acuity of the “naked eye” to which he refers or to the level of magnification that makes the dots become “clearly small dots”.

3. Guidance from the Federal Circuit on the *Nautilus* Indefiniteness Test

The Federal Circuit’s precedent since the Supreme Court redefined the test for indefiniteness in *Nautilus* provides helpful guidance. In *Interval Licensing*, for example, the patents at issue described a system that acquires data, schedules display of the data, generates

images from the data, and then displays the images on a device. 766 F.3d at 1366. Certain patent claims required the system to selectively display the images “in an unobtrusive manner that does not distract a user of the display device ...” *Id.*, at 1368. The district court found that “the terms ‘in an unobtrusive manner’ and ‘does not distract’ a user, whether used together or separately,” were indefinite. *Id.*, at 1368-69. The patents included two embodiments that the patentee argued informed those of skill in the art of the spatial meaning of “unobtrusive” in the context of the patents. *Id.*, at 1371. The patentee argued that the district court failed to appreciate the language describing “display” and improperly divorced its analysis from the context of the written description and incorrectly focused on irrelevant hypotheticals. *Id.* The Federal Circuit disagreed and found the claim term “unobtrusive manner” indefinite based on its highly subjective nature and, its failure to, on its face, provide guidance to one of skill in the art. *Id.* The Federal Circuit reasoned that the claim language offered no objective indication of the manner in which content images are to be displayed to the user. *Id.* The specification’s ambiguity, according to the Federal Circuit, did not tie its use of “unobtrusive manner” to a specific display. *Id.*, at 1371-74. The Federal Circuit also found that the prosecution history further illustrated the difficulty of the term because during prosecution and reexamination the applicants’ limited the term to one display (wallpaper embodiment), but in a decision from the Patent Trial and Appeal Board, they found the term not so limited. *Id.*, at 1373. Although the specification contained an exemplary provision of a display, the Federal Circuit refused to limit the term’s meaning as even “with this lone example, a skilled artisan is still left to wonder what other forms of display are unobtrusive and non-distracting. What if a displayed image takes up 20% of the screen space occupied by the primary application with which the user is interacting? Is the image obtrusive? The specification offers no indication, thus leaving the skilled artisan to

consult the ‘unpredictable vagaries of any one person’s opinion.’” *Id.*, at 1374 (*citing Datamize*, 417 F.3d at 1350).

Similarly, in *Datamize*, the patent at issue disclosed a software program that allowed a person to author user interfaces for electronic kiosks. 417 F.3d at 1344.¹⁴ The “authoring system gives the system author a limited range of pre-defined design choices for stylistic and functional elements appearing on the screens.” *Id.* The claims included a limitation for interface screen element types that required the element type to have limited variation of its on-screen characteristics “in conformity with a desired uniform and aesthetically pleasing look and feel for said interface screens ...”. *Id.*, at 1345. The district court found the term indefinite and the Federal Circuit agreed. *Id.*, at 1347, 1356. The Federal Circuit found the claim language and the specification “fail[ed] to provide one of ordinary skill in the art with any way to determine whether an interface screen is ‘aesthetically pleasing’.” *Id.* at 1349. While the Federal Circuit found the specification’s context helpful to identifying the components of the claimed invention that are required to be “aesthetically pleasing”, the specification lacked guidance and meaningful definitions for what the phrase meant. *Id.* In particular, the specification provided the various aspects of the screen that may affect the “aesthetically pleasing” nature: button styles, sizes, placements, window borders, color combinations, and type fonts. *Id.* at 1352. One of the patent’s embodiments also provided examples of aesthetic features in screen displays that can be controlled by the authoring system, but this same embodiment fails to explain what selection of these features would be “aesthetically pleasing.” *Id.* In addition, in response to an indefiniteness rejection during prosecution, applicants stated the term “is not intended to imply judgment on the

¹⁴ Although the Supreme Court’s decision in *Nautilus* changed the indefiniteness test utilized in *Datamize*, the Federal Circuit has favorably cited *Datamize* and its resultant finding that the claim term “aesthetically pleasing” was indefinite in post-*Nautilus* decisions. *See e.g., Interval*, 766 F.3d at 1370, 1372, 1374; *DDR Holding, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1260 (Fed. Cir. 2014)

relative artistic merits of the ‘look and feel’” since “one practicing the invention can create an ‘aesthetically pleasing look and feel’ that is ‘desired’ by that person and that is maintained as desired on screens of the system.” *Id.*, at 1353. The expert testimony only served to further highlight the term’s difficulty as the patentee’s expert testified regarding various parameters of design that contribute to an “aesthetically pleasing” display, but failed to explain how the parameters should be evaluated or weighed to reach the conclusion that an interface is indeed “aesthetically pleasing”. *Id.*, at 1354. The Federal Circuit stated “[t]he inability of the expert to use the parameters he himself identified to determine whether an interface screen is “aesthetically pleasing” militates against the reasonableness of those parameters as delineating the metes and bounds of the invention.” *Id.*

On the other hand, in *Enzo Biochem*, the Federal Circuit found the claim term “not interfering substantially”, definite based on the guidance from the claims and specification. 599 F.3d at 1333-34. The *Enzo* patent claims were directed to various techniques for labeling and detecting nucleic acids—DNA and RNA. *Id.*, at 1328. The Federal Circuit found the claims provided guidance by way of a specific chemical linkage group claimed in a dependent claim that would allow the person of ordinary skill to presume the independent claims allow “for at least as much interference as that exhibited when the linkage group has the structure specified in the dependent claim.” *Id.*, at 1333-34. The *Enzo* patent specification provided additional guidance in a description of the possible chemical structures of the linkage groups, and provided a test for the person of ordinary skill to use in assessing the boundaries of the claim—experimental conditions that the linkage group should be able to withstand. *Id.*, at 1334. The specification disclosed a test that the Federal Circuit found “a person of ordinary skill would likely look to the thermal denaturation profiles and hybridization properties ... of the modified

nucleotide, to see whether they fall within the range of exemplary values disclosed in the intrinsic evidence.” *Id.*, at 1335.

The ‘845 Patent’s use of “visually negligible” is more similar to the scenarios presented in *Interval Licensing* and *Datamize*. The claims provide guidance only as to the subjective component that is required to be “visually negligible”—the graphical indicator. The specification provides very general descriptions for parameters of the graphical indicator—size, number and layout, describing them as “tiny” graphical micro-units and “loosely arranged” dot patterns with “regular or irregular” shaped graphical micro-units. The embodiments in the specification, while providing examples of “visually negligible” graphical indicators, do not provide a measure for the objective boundaries of the claim term outside of those examples and Sonix does not advocate for the Court to read these limitations into the claims.¹⁵ Furthermore, the expert testimony from Dr. Engels and Dr. Ashok confirms the subjective application of the “visually negligible” claim term in practice when looking at the prior art and other dot patterns disclosed—no uniform result is produced and no objective test is provided.

Unlike *Enzo*, the ‘845 Patent claims do not provide any additional guidance to the scope of “visually negligible” and the specification, although it provides examples of “visually negligible”, does not provide parameters outside of those examples for the person of ordinary skill to have reasonable certainty regarding whether the graphical indicator they are using is

¹⁵ Indeed, it is not clear that limiting the claims reciting “visually negligible” to the embodiments would be proper here where the dependent claims are modeled after the embodiments and neither party points to language that would constitute a clear disavowal on Sonix’s part to warrant importation of the limitations. See *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014) (“The standards for lexicography and disavowal are exacting”); *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (explaining that the Federal Circuit has “expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment” absent “a clear intention to limit the claim scope using ‘words or expressions of manifest exclusion or restriction’”).

“visually negligible”. There is no disclosure identifying a method of measurement or assessment, like the experimental conditions test of *Enzo*, to determine “visually negligible” graphical indicators and ultimately, the determination is still left to the perception of the user. *See Datamize*, 417 F.3d at 1350 (finding the claim term indefinite because the scope of the claim term will “depend solely on the unrestrained, subjective opinion of a particular individual purportedly practicing the invention).

The general lack of guidance in the intrinsic and extrinsic evidence related to the ‘845 Patent, therefore, renders the metes and bounds of the “visually negligible” claim term unknown to the person of ordinary skill. Unlike the functional aspects of the graphical indicator which provide an ultimate test for whether they meet the claim terms—i.e., whether they can perform the claimed function—the aesthetic aspects of the design as “visually negligible” rely on a term that provides no test or measure for the person of ordinary skill in the art to use in answering the question of whether their graphical indicator is “visually negligible.” In addition, the intrinsic evidence beyond the claims—the specification and prosecution history—does not rescue the inherently subjective measure for the “visually negligible” claim term. As the Supreme Court teaches, “a patent must be precise enough to afford clear notice of what is claimed ... [o]therwise there would be ‘a zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims.’” *See Nautilus*, 134 S.Ct. at 2129. “[A]bsent a meaningful definiteness check ... patent applicants face powerful incentives to inject ambiguity into their claims.” *Id.*¹⁶ The ambiguity injected into the ‘845 Patent claims leaves the person of ordinary

¹⁶ Admittedly, in Sonix’s response to Defendants’ invalidity contentions, it provides broad general recitations that the “visually negligible” claim limitation is met by examples disclosed in the prior art that it simply characterizes as “negligible”, “visually negligible”, “highly visible” or that “disclose[] that the density and size of its graphical indicators would make the indicator visually negligible”. (*See e.g.*, R.213-1, Sonix’s Resp. to Defs’ Final Invalidity Contentions, Attachment A, at 2, 15, 16, 26, 30, 35, 39, 40, 43.)

skill wandering around the claims' edges without knowledge of the metes and bounds of "visually negligible" graphical indicators beyond the ultimate subjective perception of the user. *See Datamize*, 417 F.3d at 1353 (finding the claim term indefinite because it "fails to delineate the scope of the invention using language that adequately notifies the public of the patentee's right to exclude"). This is inadequate under 35 U.S.C. § 112. As such, the Court finds the term "visually negligible" indefinite and grants summary judgment for Defendants on this basis.

II. Defendants Motion for Summary Judgment of Non-Infringement & Pre-Suit Damages

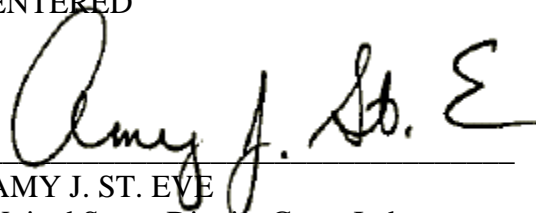
The Court's determination that the '845 Patent is invalid due to indefiniteness precludes any finding of infringement, and related damages. As such, Defendants' motion for summary judgment based on non-infringement and pre-suit damages is denied as moot.

CONCLUSION

For the reasons set forth above, the Court grants in part and denies in part Defendants' summary judgment motion. Specifically, the Court grants Defendants' motion for summary judgment that the '845 Patent is invalid for indefiniteness and denies as moot Defendants' motion for summary judgment regarding non-infringement and pre-suit damages.

DATED: December 8, 2015

ENTERED



AMY J. ST. EVE
United States District Court Judge