

**United States Court of Appeals  
for the Federal Circuit**

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**SONIX TECHNOLOGY CO., LTD.,**  
*Plaintiff-Appellant*

v.

**PUBLICATIONS INTERNATIONAL, LTD., SD-X  
INTERACTIVE, INC., ENCYCLOPEDIA  
BRITTANNICA, INC., HERFF JONES, INC.,**  
*Defendants-Appellees*

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2016-1449

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Appeal from the United States District Court for the  
Northern District of Illinois in No. 1:13-cv-02082, Judge  
Amy J. St. Eve.

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Decided: January 5, 2017

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Before LOURIE, O'MALLEY, and TARANTO, *Circuit Judges*.

LOURIE, *Circuit Judge*.

Sonix Technology Co., Ltd. (“Sonix”) appeals from the district court’s grant of summary judgment following its determination that claims 9, 25, 35–36, 52–55, 57–60, 62–64, 66, 68, 71–77, 79–82, and 85–90 (“the asserted claims”) of Sonix’s U.S. Patent 7,328,845 (“the ’845 patent”) are invalid as indefinite. *See Sonix Tech. Co. v. Publ’ns. Int’l, Ltd.*, No. 13-cv-2082, 2015 WL 8153600, at \*9–17 (N.D. Ill. Dec. 8, 2015) (“*Opinion*”). Specifically, the district court concluded that the term “visually negligible” rendered the asserted claims indefinite under 35 U.S.C. § 112 ¶ 2.<sup>1</sup> For the reasons that follow, we reverse the determination of indefiniteness and hence the summary judgment of invalidity.

#### BACKGROUND

Sonix owns the ’845 patent, which describes a system and method for using a “graphical indicator” (e.g., a matrix of small dots) to encode information on the surface of an object. *See* ’845 patent, col. 3 ll. 6–43. The surface may feature additional information as well; for example, illustrations or icons in a children’s book. *Id.* col. 7 ll. 1–6. The invention also includes an “optical device” that can read the graphical indicator and output further information. *Id.* col. 7 ll. 18–32. Figure 5 illustrates an example:

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<sup>1</sup> Because the ’845 patent was filed before the enactment of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 3, 125 Stat. 284, 285–93 (2011), the prior version of § 112 governs. *See Fleming v. Escort, Inc.*, 774 F.3d 1371, 1374 n.1 (Fed. Cir. 2014).

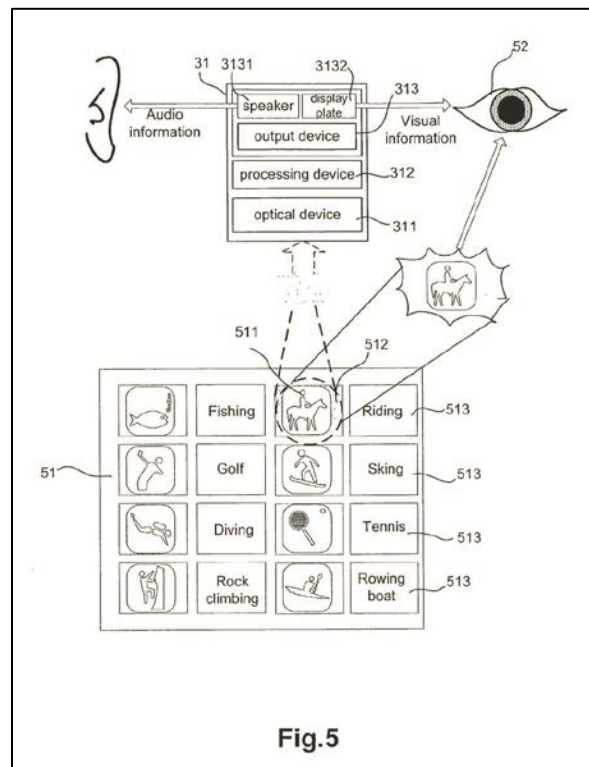
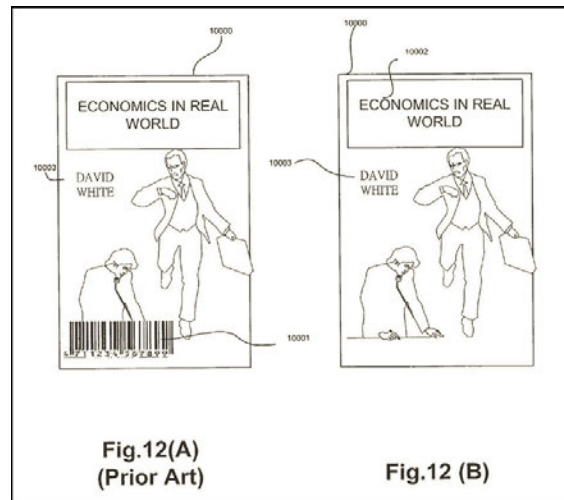


Fig.5

*Id.* fig.5. In this example, an icon showing a person riding a horse (511) is printed on the page of a book (51). *Id.* col. 7 ll. 1–10. The graphical indicator (512) is printed in the same area as the icon. *Id.* col. 7 ll. 18–21. The optical device (311) captures an image that includes the graphical indicator. *Id.* col. 7 ll. 21–24. The processing device (312) retrieves the indicator from the image and outputs additional information. *Id.* In this particular example, holding the optical device over the horse icon could cause the device to output “audio information, such as pronunciations of horse in English.” *Id.* col. 7 ll. 27–32.

Of course, encoding information on the surface of an object is not new. The '845 patent admits that information has been recorded on the surface of objects “[d]ating back to ancient time[s],” *id.* col. 1 ll. 15–16, and lists a bar code as a “conventional” example of a graphical

indicator, *id.* col. 9 ll. 46–57. The '845 patent purports to improve on conventional methods by rendering the graphical indicator “visually negligible.” *Id.* col. 3 ll. 5–11. The patent uses a book cover to illustrate the difference between a conventional bar code and the claimed indicator:



*Id.* figs. 12(A) & 12(B). The graphical indicator (10002) in figure 12(B) stores the same information as the bar code (10001) in figure 12(A), but in a manner that does not “interfere with the other main information on the surface.” *Id.* col. 9 ll. 47–57.

The “[e]xemplary [d]esign,” *id.* col. 3 l. 5, of the claimed indicator “includes multiple graphical micro-units arranged in a layout.” *Id.* col. 3 ll. 14–15. In one embodiment the micro-units are dots, arranged in a matrix. *Id.* col. 3 ll. 15–25. Each cell in the matrix either contains or does not contain a dot, resulting in a unique pattern that can store information. *Id.* col. 3 ll. 38–30, col. 4 ll. 13–41.

The written description also discloses differentiability, brightness, and homogeneity “requirements for the graphical indicators being negligible to human eyes.” *Id.* col. 4 ll. 60–61. First, the indicator must be so small that “human eyes cannot differentiate one graphical indicator from others.” *Id.* col. 4 ll. 61–63. The patent indicates

that “[f]or best result, the graphical micro-unit must be so tiny that only a microscope apparatus can detect it.” *Id.* col. 3 ll. 24–25. Second, the patent advises that the number of micro-units should be reduced based on “the size of the graphical micro-unit, the pitch between micro-unit, and the desired visual effect,” so that they “have little influence on the brightness of the surface of the object.” *Id.* col. 4 l. 67–col. 5 l. 1. Finally, the “number of graphical micro-units of each graphical indicator” should be “substantially equal to each other,” so that “the graphical indicators look more homogenous to human eyes and become invisible to human eyes.” *Id.* col. 5 ll. 1–5.

The written description also gives two examples of visually-negligible indicators. In the first, each square centimeter contains 3,000 matrix cells, of which less than 70% contain graphical micro-units, and where each micro-unit occupies less than 80% of the cell. *Id.* col. 5 ll. 6–10. The second is similar, but requires each square centimeter to include 6,000 cells. *Id.* col. 5 ll. 11–15.

In 2010, Sonix alleged that children’s books using dot pattern technology produced by GeneralPlus, a Taiwanese company, infringed the ’845 patent. In response, SunPlus Technology Co. Ltd. (“SunPlus”), GeneralPlus’s parent company, requested *ex parte* reexamination of the ’845 patent (“the first reexamination”) by the U.S. Patent and Trademark Office (“USPTO”). On December 27, 2011, the USPTO confirmed the patentability of, *inter alia*, asserted claims 9, 25, and 35–36, and allowed new, and now asserted, claims 52–55, 57–60, 62–64, 66, 68, 71–77, 79–82, and 85–90, among others. J.A. 94–96.

Less than one month later, GeneralPlus requested another *ex parte* reexamination (“the second reexamination”). J.A. 1937. One of the central disputed issues during this second reexamination was whether the combination of U.S. Patent 5,416,312 (“Lamoure”) and U.S. Patent 5,329,107 (“Priddy”) would have led to a visually-

negligible indicator, as the examiner initially rejected all pending claims over that combination. *See, e.g.*, J.A. 2328–31. Sonix responded to that rejection with a declaration from Serjer Serjersen (“Serjersen”), an expert with more than thirty years of experience. J.A. 2337. Serjersen declared that he created graphical indicators using the processes described by the ’845 patent and by the cited references, and determined that only the indicator produced using the process of the ’845 patent was visually negligible. J.A. 2338–44, 5313–25. The examiner confirmed the patentability of the asserted claims on the basis of Serjersen’s declaration, specifically indicating that the combination of cited references did not disclose a visually-negligible graphical indicator. J.A. 2362–65.

In 2013, Sonix alleged that Publications International, Ltd., SD-X Interactive, Inc., Encyclopedia Britannica, Inc., and Herff Jones, Inc. (collectively, “Appellees”) infringed the asserted claims. Appellees’ initial invalidity contentions identified twenty-six claim limitations that they believed to be indefinite; however, that list did not include the term “visually negligible.” *See* J.A. 2637–41. In their final invalidity contentions, Appellees contended that two additional claim limitations were indefinite, but again did not question “visually negligible.” J.A. 3031.

During claim construction, Appellees initially asked the district court to construe “visually negligible,” J.A. 2430, but, when they retained new counsel, proposed that the term be given its ordinary meaning, J.A. 2434–36. Sonix agreed with an ordinary-meaning construction, and so the district court did not construe “visually negligible.”

Even so, “visually negligible” was used repeatedly in the expert reports. For example, Sonix’s expert, Dr. Ashok, opined that the accused products included visually-negligible indicators, J.A. 3087–88, and that the cited prior art did not, J.A. 3539–41, 3547. Appellees’ expert, Dr. Engels, also applied “visually negligible”

throughout his reports, and even agreed that “the dot patterns in the specific products reviewed by Dr. Ashok in his Report are visually negligible . . .” J.A. 4210–11. On validity, Dr. Engels repeatedly opined that the indicators disclosed in Lamoure and Priddy—the same references at issue in the second reexamination—were visually negligible. *See* J.A. 5348–49, 5355–56, 5418, 5430–31. But Dr. Engels did not opine that “visually negligible” was indefinite. *See id.* Elsewhere in his report, Dr. Engels contended that alternatives to the claimed invention would have been available because “it would be a simple matter to ensure that any pattern being used would be printed in a manner that would be visually negligible compared to the main information on a page.” J.A. 4228.

At Dr. Ashok’s deposition, after the close of fact discovery and after the parties agreed to an ordinary meaning for “visually negligible,” he was asked to explain “what does [visually negligible] mean to you?” J.A. 4755 at 46:25–47:1. Dr. Ashok indicated that he understood it “to mean that if these dot patterns are imprinted on a surface, with a cursory look, I will not notice that.” *Id.* at 47:2–7. Dr. Ashok was then asked whether there was “any sort of objective standard” for visual negligibility. J.A. 4756 at 49:11. Dr. Ashok explained that visibility depended on the ink used, the printing pattern, and the size of the dot, but that there “is not a universal standard by any means because it depends on the visual acuity of the observer.” *Id.* at 50:24–51:4. Even so, Dr. Ashok indicated that his “method of determining visual negligibility would be [to] print at the magnification desired and look at it,” because he “would imagine that would be representative of most people looking at it.” *Id.* at 51:5–8.

In response, Dr. Engels asserted at his deposition that “visually negligible” was subjective because “there is no objective test to define the boundary between visually negligible and visually non-negligible.” Dr. Engels did not analyze the intrinsic evidence, and did not provide any

detail explaining his conclusion. J.A. 3709. On the basis of the two expert depositions, Appellees amended their invalidity contentions and moved for summary judgment of indefiniteness.

The district court ultimately held that the claims are invalid as indefinite. *Opinion*, 2015 WL 8153600, at \*9–17. Reasoning that “visually negligible” is “purely subjective” and that the claim language does not provide guidance on its meaning, the court turned to the other intrinsic evidence. *Id.* at \*13. The court determined that the written description does not provide a person of ordinary skill in the art “with a meaning that is reasonably certain and defines objective boundaries” of the claim scope. *Id.* The court rejected Sonix’s argument that “visually negligible” means “something that may be visible, but does not interfere with the user’s perception of other visual information on a surface,” concluding that defining the term “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.” *Id.* (citing *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1351 (Fed. Cir. 2005)).

The district court also rejected Sonix’s attempts to rely on other portions of the written description. For example, the court determined that the instruction that the graphical micro-units “must be so tiny that only a microscope apparatus can detect it,” ’845 patent, col. 3 ll. 24–25, failed to provide reasonable certainty because the written description “contains no information . . . regarding what type of microscope apparatus or what level of magnification the user would need.” *Opinion*, 2015 WL 8153600, at \*14. The court similarly rejected Sonix’s reliance on the differentiability, brightness, and homogeneity requirements because they lacked “the necessary detail to make [them] meaningful.” *Id.* Finally, the court rejected the



prosecution and reexamination history as not providing additional guidance. *Id.* at \*15.

Although the district court determined that it was “not necessary” to consult the extrinsic evidence, it nonetheless concluded that the extrinsic evidence “highlights the problem with the subjective nature of the ‘visually negligible’ claim term.” *Id.* The court noted, for example, that although the experts applied the term to the prior art, they did not provide any standard by which to measure negligibility aside from their “subjective belief.” *Id.*

The district court then reviewed recent cases from the Supreme Court and this court, and determined that the present case was more similar to those concluding that claims were invalid as indefinite than to those holding otherwise. *See id.* at \*15–17 (citing *Nautilus v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014); *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1368–74 (Fed. Cir. 2014); *Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1336 (Fed. Cir. 2010); *Datamize*, 417 F.3d at 1349–54).

The district court therefore entered judgment against Sonix and for Appellees on December 8, 2015. J.A. 1–2. Sonix timely appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

At the outset, there is a dispute relating to the standard of review to be applied to the present case. Sonix argues that our review is entirely *de novo*, because the district court indicated that it was unnecessary to address the extrinsic evidence and did not make any factual findings based thereon. Appellees respond that the district court made underlying findings that “visually negligible” is subjective and that it lacks an objectively-measurable standard.

We agree with Sonix that we review a district court's determination that a claim is invalid as indefinite under 35 U.S.C. § 112 ¶ 2 *de novo*, although, as with claim construction, any factual findings by the district court based on extrinsic evidence are reviewed for clear error. *Cox Commc'ns, Inc. v. Sprint Commc'n Co.*, 838 F.3d 1224, 1228 (Fed. Cir. 2016) (citing *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 840–42 (2015) (“*Teva I*”). To trigger clear error review, “it is not enough that the district court may have heard extrinsic evidence during a claim construction proceeding—rather, the district court must have actually made a factual finding . . . .” *Card-Soft, LLC v. VeriFone, Inc.*, 807 F.3d 1346, 1350 (Fed. Cir. 2015) (citations omitted). Moreover, “[a] party cannot transform into a factual matter the internal coherence and context assessment of the patent simply by having an expert offer an opinion on it. The internal coherence and context assessment of the patent, and whether it conveys claim meaning with reasonable certainty, are questions of law.” *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 789 F.3d 1335, 1342 (Fed. Cir. 2015) (“*Teva II*”).

The district court expressly explained that the extrinsic evidence was “not necessary for [its] consideration” of the indefiniteness issue. *Opinion*, 2015 WL 8153600, at \*15. Moreover, the district court's conclusions of subjectivity and lack of an objective standard are not findings subject to clear error review; instead, they are conclusions relating to the meaning of the intrinsic evidence, and whether it conveys claim meaning with reasonable certainty. *See Teva II*, 789 F.3d at 1342. Such conclusions cannot be transformed into factual matters “simply by having an expert offer an opinion on [them].” *Id.*

## I. INDEFINITENESS

Sonix argues that the district court erred in concluding that “visually negligible” renders the asserted claims invalid as indefinite. Specifically, Sonix argues that the

requirements and examples in the written description would have allowed a skilled artisan to know the scope of the claimed invention with reasonable certainty and establish that the term depends on human perception, not opinion. This conclusion is supported, Sonix contends, by the consistent manner in which “visually negligible” has been applied during initial examination, both reexaminations, and the majority of the district court litigation.

Appellees respond that visual negligibility does not have an objective standard because it depends on the “vagaries of any one person’s opinion,” *Datamize*, 417 F.3d at 1350, and is therefore indefinite. Appellees contend that the written description would not allow a skilled artisan to understand the scope of the claims with reasonable certainty, and that the ability of experts to apply the term does not provide an objective standard.

We agree with Sonix that a skilled artisan would understand, with reasonable certainty, what it means for an indicator in the claimed invention to be “visually negligible.” The intrinsic evidence supports, and the extrinsic evidence is consistent with, this conclusion.

Section 112 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.” The Supreme Court has read this provision 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.” *Nautilus*, 134 S. Ct. at 2129. Indefiniteness must be proven by clear and convincing evidence. *See Teva II*, 789 F.3d at 1345.

The § 112 ¶ 2 requirement strikes a “delicate balance” between “the inherent limitations of language” and providing “clear notice of what is claimed.” *Nautilus*, 134 S. Ct. at 2129 (internal citations omitted). Even so, the Supreme Court has recognized that “absolute precision is

unattainable.” *Id.* “[T]he certainty which the law requires in patents is not greater than is reasonable, having regard to their subject-matter.” *Id.* (quoting *Minerals Separation, Ltd. v. Hyde*, 242 U.S. 261, 270 (1916) (internal quotation marks omitted)).

Because language is limited, we have rejected the proposition that claims involving terms of degree are inherently indefinite. *Interval Licensing*, 766 F.3d at 1370. Thus, “a patentee need not define his invention with mathematical precision in order to comply with the definiteness requirement.” *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 424 F.3d 1374, 1384 (Fed. Cir. 2005) (citation omitted). Indeed, “[c]laim language employing terms of degree has long been found definite where it provided enough certainty to one of skill in the art when read in the context of the invention.” *Interval Licensing*, 766 F.3d at 1370 (citing *Eibel Process Co. v. Minn. & Ont. Paper Co.*, 261 U.S. 45, 65–66 (1923)).

Accordingly, we have held that the clause “not interfering substantially” did not render a claim invalid as indefinite. *Enzo*, 599 F.3d at 1336.<sup>2</sup> In that case, we reasoned that the intrinsic evidence provided guidance as to the scope of the claims, including, *inter alia*, examples of noninterfering structures and criteria for their selection. *Id.* at 1334–35. This guidance allowed a skilled artisan to compare a potentially infringing product “with the examples in the specification to determine whether interference . . . is substantial.” *Id.* at 1336.

We have found terms of degree indefinite, however, when such guidance is lacking. For example, *Datamize*

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<sup>2</sup> Although *Enzo* was decided before the introduction of the “reasonable certainty” standard, we have relied on it in our post-*Nautilus* decisions. See, e.g., *Interval Licensing*, 766 F.3d at 1370.

involved claims to an “aesthetically pleasing” look and feel for interface screens. 417 F.3d at 1348–49. We determined that such language rendered the claim indefinite because, although the written description did detail various elements that might affect whether a screen was aesthetically pleasing (such as button styles and sizes), it “provide[d] no guidance to a person making aesthetic choices such that their choices will result in an ‘aesthetically pleasing’ look and feel of an interface screen.” *Id.* at 1352. Without such guidance, the claim did “not just include a subjective element, it [wa]s completely dependent on a person’s subjective opinion.” *Id.*

Similarly, *Interval Licensing* involved a claim related to displaying content “in an unobtrusive manner that does not distract a user.” 766 F.3d at 1368. We observed that the term was “a term of degree,” *id.* at 1370, “purely subjective,” *id.* at 1371, and that the claim language offered “no objective indication of the manner in which content images are to be displayed to the user,” *id.* We refused to limit the “facially subjective claim term” to the single example in the written description because, without more information, “a skilled artisan is still left to wonder what other forms of display are unobtrusive and non-distracting . . . thus leaving the skilled artisan to consult the ‘unpredictable vagaries of any one person’s opinion.’” *Id.* at 1373–74 (quoting *Datamize*, 417 F.3d at 1350).

As indefiniteness analysis involves general claim construction principles, we begin with the language of the claims of the ’845 patent. *See Enzo*, 599 F.3d 1332. We do agree with the district court that the claim language itself does not unmistakably make clear the scope of “visually negligible”; however, we disagree with the conclusion, and Appellees’ argument, that the term is “purely subjective,” *Opinion*, 2015 WL 8153600, at \*13, in the same manner as “aesthetically pleasing” in *Datamize* and “in an unob-

trusive manner that does not distract a user” in *Interval Licensing*.

*Datamize* and *Interval Licensing* involved terms that were subjective in the sense that they turned on a person’s tastes or opinion. “Aesthetically pleasing” implicates matters of taste or preference; whether something is aesthetically pleasing is a value judgment that inherently varies from person to person. “In an unobtrusive manner that does not distract” similarly implicates a person’s individual focus, concentration, attentiveness, or similar mental state at a given moment, or even opinions, affecting what is or is not distracting. The question whether something is “visually negligible” or whether it interferes with a user’s perception, however, involves what can be seen by the normal human eye. This provides an objective baseline through which to interpret the claims. See *Warsaw Orthopedic, Inc. v. NuVasive, Inc.*, 778 F.3d 1365, 1371 (Fed. Cir. 2015), *cert. granted, judgment vacated sub nom. Medtronic Sofamor Danek USA, Inc. v. NuVasive, Inc.*, 136 S. Ct. 893 (2016), and *opinion reinstated in relevant part*, 824 F.3d 1344, 1346 (Fed. Cir. 2016). Thus, although the term may be a term of degree, it is not “purely subjective.”

We turn next to the written description, to determine whether there is some standard in the written description for measuring visual negligibility. See *Enzo*, 599 F.3d at 1332. Our prior cases establish that the written description is key to determining whether a term of degree is indefinite. In *Enzo*, for example, the written description included examples of noninterfering structures and the procedures for selecting them; we reasoned that the examples and procedures provided guidance and points of comparison for skilled artisans. *Id.* at 1335–36. The one example provided in the written description at issue in *Interval Licensing*, in contrast, was not accompanied by sufficient detail to render the claim scope reasonably certain. 766 F.3d at 1372. In *Datamize*, the written

description did not contain any examples of an “aesthetically pleasing” interface, nor did it “explain what factors a person should consider when selecting a feature” to lead to an aesthetically pleasing result. 417 F.3d at 1352.

On the other hand, the '845 patent contains considerably more detail than *Datamize* or *Interval Licensing*. As explained previously, the written description of the '845 patent includes: (1) a general exemplary design for a visually-negligible indicator, '845 patent, col. 3 ll. 13–20; (2) “requirements for the graphical indicators being negligible to human eyes,” *id.* col. 4 l. 60–col. 5 l. 5; and (3) two specific examples of visually-negligible indicators, *id.* col. 5 ll. 6–15. That there are examples at all distinguishes this case from *Datamize*, and that the written description contains an additional example and specific requirements distances this case from *Interval Licensing*. Instead, the level of detail provided in the written description is closer to that provided in *Enzo*: These are statements that provide guidance on how to create visually-negligible indicators, and specific examples that provide points of comparison for the result.

Appellees criticize what they see as the written description's low level of detail. Specifically, they argue that the examples and requirements in the written description cannot be translated to an objective standard for the claim's scope because they, too, are subjective. We disagree. Just as the patent in *Enzo* included “examples of suitable linkage groups,” 599 F.3d at 1334, the '845 patent includes examples of visually-negligible indicators, '845 patent, col. 5 ll. 6–15. Just as the patent in *Enzo* provided “some criteria for selecting [linkage groups that did not substantially interfere],” 599 F.3d at 1334, the '845 patent includes the differentiability, brightness, and homogeneity “requirements for the graphical indicators being negligible to human eyes,” '845 patent, col. 4 l. 60–col. 5 l. 5. The guidance in *Enzo* allowed a skilled artisan to compare a potentially infringing product “with the

examples in the specification to determine whether interference . . . is substantial,” 599 F.3d at 1336; similarly, an accused infringer could compare the examples and criteria from the written description of the '845 patent to determine whether an indicator is visually negligible. Moreover, Appellees have not provided evidence that human perception varies so significantly that reliance on it as a standard renders the claims indefinite. *See Warsaw*, 778 F.3d at 1371. Thus, as in *Enzo*, the written description of the '845 patent supports the conclusion that a skilled artisan would have understood the term with reasonable certainty.

Other aspects of this case also make reversal compelling. The prosecution history of the '845 patent, which includes the reexamination history, *see Info-Hold, Inc. v. Applied Media Techs. Corp.*, 783 F.3d 1262, 1266 (Fed. Cir. 2015), supports that conclusion. No one involved in either the first or the second reexamination had any apparent difficulty in determining the scope of “visually negligible.” During the first reexamination, SunPlus repeatedly argued that the prior art disclosed visually-negligible graphical indicators without any apparent uncertainty as to the meaning or scope of the term, and no apparent difficulty applying it to the references at issue. *See, e.g.*, J.A. 795, 800, 801, 811, 823, 835, 844, 849–50, 854, 864, 876. During the second reexamination, the examiner was able to understand and apply the term in performing a search for prior art and make an initial rejection. *See* J.A. 2312–13. Moreover, Serjersen was able to understand both the claims and written description with sufficient certainty to (1) replicate the claimed indicator; and (2) opine regarding whether it, and the indicators of Lamoure and Priddy, were visually negligible. *See* J.A. 2338–44, 5313–25. Thus, he was readily able to differentiate between which indicators were and which were not visually negligible. Finally, the examiner understood the import of Serjersen’s results well enough



to withdraw the rejections in response, indicating that he was able to differentiate between indicators as well. J.A. 2363–65. Again, GeneralPlus, Sonix, and the USPTO did not express any uncertainty as to the scope of “visually negligible,” or encounter any apparent difficulty in applying the term to the references.

Appellees challenge this evidence as well, arguing that the fact that the experts applied the term does not mean that they used or could determine an objective standard. Although Appellees are correct that application by the examiner and an expert do not, on their own, establish an objective standard, they nevertheless provide evidence that a skilled artisan did understand the scope of this invention with reasonable certainty.

The extrinsic evidence, to the extent that it is necessary in this case, does not counsel otherwise. Appellees apparently understood the meaning of “visually negligible” from the beginning of the litigation. Their initial invalidity contentions did not argue that the “visually negligible” was indefinite, and neither did their final contentions. Indeed, at no point before Dr. Ashok’s deposition did they contend that “visually negligible” was indefinite, even though they contended that twenty-eight other terms *were* indefinite. That Appellees themselves did not question the clarity of “visually negligible” in the first several years of litigation supports the conclusion that the term could be understood with reasonable certainty.

Appellees’ other actions during litigation also reflect that they understood “visually negligible.” They initially argued for a specific construction of the term, but later abandoned their attempt in favor of an ordinary-meaning construction. The parties’ experts also had no difficulty in applying “visually negligible.” Dr. Ashok and Dr. Engels repeatedly applied the term to the references and the accused products. Although Appellees again argue that

this does not establish an objective standard, continued application by the experts in this case further supports the conclusion that a skilled artisan did understand the term with reasonable certainty.

Appellees' repeatedly cite Dr. Ashok's responses during his deposition. Appellees asked Dr. Ashok to define "visually negligible," a term for which he had given no previous definition, and which Appellees had previously agreed did not need a construction. But it is unsurprising that Dr. Ashok indicated that he was unaware of a "technical standard" for the term, J.A. 4756 at 51:9–11; as Appellees had agreed to an ordinary-meaning construction, there was no reason for him to attempt to determine one. Even so, Dr. Ashok did not opine that a skilled artisan would have any trouble understanding the term or that the claims were indefinite, and he observed that he thought that his assessment of what was visually negligible would likely be representative. *See* J.A. 4755–56. Dr. Engels, Appellees' own expert, also did not opine that the claims were indefinite or that a skilled artisan would not have understood the term; instead, he provided a one-sentence statement that "visually negligible" is subjective and that there was no objective test to define it. *See* J.A. 3709. Dr. Engels did not detail any basis for this conclusion, instead simply stating that it was "based on Dr. Ashok's testimony." *Id.* In light of the intrinsic evidence, this ambiguous testimony is not persuasive.

Our holding in this case does not mean that the existence of examples in the written description will always render a claim definite, or that listing requirements always provide sufficient certainty. Neither does the fact that an expert has applied a contested claim term without difficulty render a claim immune from an indefiniteness challenge. As always, whether a claim is indefinite must be judged "in light of the specification and prosecution history" of the patent in which it appears. *Interval Licensing*, 766 F.3d at 1369. We simply hold that "visually

negligible” is not a purely subjective term and that, on this record, the written description and prosecution history provide sufficient support to inform with reasonable certainty those skilled in the art of the scope of the invention. The examiner’s knowing allowance of claims based on the term that is now questioned, plus the acceptance of the term by both parties’ experts, force us to the conclusion that the term “visually negligible” is not indefinite. Accordingly, we reverse the district court’s conclusion that the asserted claims are invalid as indefinite.

Because we hold that the district court erred in concluding that the asserted claims are indefinite, we need not, and do not, reach Sonix’s alternative arguments for reversal.

#### CONCLUSION

We have considered the remaining arguments, but find them unpersuasive. For the foregoing reasons, the decision of the district court is reversed.

**REVERSED**