

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

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**ENPLAS DISPLAY DEVICE CORPORATION,**  
*Plaintiff-Appellant*

**ENPLAS TECH SOLUTIONS, INC., ENPLAS  
(U.S.A.), INC.,**  
*Plaintiffs*

**v.**

**SEOUL SEMICONDUCTOR COMPANY, LTD.,**  
*Defendant-Appellee*

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2016-2599

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Appeal from the United States District Court for the Northern District of California in No. 3:13-cv-05038-NC, Magistrate Judge Nathanael M. Cousins.

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Decided: November 19, 2018

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JOHN C. ROZENDAAL, Sterne Kessler Goldstein & Fox, PLLC, Washington, DC, argued for plaintiff-appellant. Also represented by MICHAEL E. JOFFRE.

LAWRENCE J. GOTTS, Latham & Watkins LLP, Washington, DC, argued for defendant-appellee. Also represented by GABRIEL BELL; CHARLES SANDERS, Boston, MA; RYAN OWENS, Costa Mesa, CA.

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Before NEWMAN, HUGHES, and STOLL, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* STOLL.

Opinion concurring in part, dissenting in part filed by  
*Circuit Judge* NEWMAN.

STOLL, *Circuit Judge*.

Enplas Display Device Corporation appeals the district court's summary judgment that claim 20 of Seoul Semiconductor Company, Ltd.'s ("SSC") U.S. Patent No. 6,007,209 is not anticipated. Following a jury trial on the remaining infringement and invalidity issues, Enplas also appeals the district court's denial of judgment as a matter of law ("JMOL") that SSC's U.S. Patent No. 6,473,554 is anticipated; denial of JMOL of no induced infringement; and denial of JMOL that the jury's damages award is excessive and not supported by the trial evidence.

For the reasons below, we affirm the district court's judgment that claim 20 of the '209 patent and the asserted '554 patent claims are not anticipated. Although a close question, we also affirm the district court's denial of JMOL of no inducement. We hold, however, that the district court erred when it denied JMOL that the damages award was not supported by substantial evidence. We therefore vacate the jury's damages award, and remand for further proceedings.

#### BACKGROUND

The asserted '209 and '554 patents are directed to methods of backlighting display panels, particularly LED displays used in televisions, laptop computers, and other electronics. In such displays, the '209 patent teaches, "uniform illumination is difficult to achieve, and prior art devices frequently fail[ed] to provide a sufficiently uni-

form source of illumination for LCD displays.” ’209 patent col. 1 ll. 36–38. The invention claimed in the ’209 patent purports to solve this problem by providing a light source that uniformly backlights the rear surface of the display panel. *Id.* at col. 1 ll. 45–48. The light source includes “a housing having a cavity formed by diffusely reflective bottom and side interior surfaces.” *Id.* at col. 1 ll. 46–48. “Illumination is provided by [LEDs] that are shielded by shielding elements.” *Id.* at col. 1 ll. 50–51. The LEDs and shielding elements are “positioned such that the emitted light is substantially uniformly distributed throughout the cavity, thereby eliminating bright spots (i.e., ‘hot spots’) in the display panel.” *Id.* at col. 1 ll. 52–55.

Claim 20 of the ’209 patent recites:

20. A method of backlighting a display panel, comprising:

producing illumination from a substantially lambertian light source comprising a cavity with internal side walls, an internal bottom wall, and an aperture, said step of producing illumination comprising the step of directing light rays *emitted by plural light sources mounted on said internal bottom wall* and around the perimeter of the aperture into the cavity such that the light exiting the aperture is substantially uniform in intensity and color;

using a diffuser to diffuse light from said substantially lambertian light source;

using a brightness enhancing film to concentrate the diffused light into a predetermined angular range without significantly reducing the uniformity of the diffused light; and

directing the concentrated, diffused light onto said display panel.

*Id.* at col. 9 l. 18–col. 10 l. 8 (emphasis added).

The '554 patent, however, purports to solve the illumination uniformity problem in a different way. The patent discloses a lighting apparatus using a “waveguide coupled to a light source for injecting light into the waveguide.” '554 patent, Abstract. Embedded within the waveguide is “an illumination coupler.” *Id.* at col. 3 ll. 18–20. The illumination coupler “comprises a refractive index interface configured to capture light rays propagating along a line that forms less than the critical angle of total internal reflection with respect to at least one of the top and bottom surfaces, such that the captured light rays are injected therebetween for propagation outside of the interior region.” *Id.* at col. 3 ll. 23–29. The illumination coupling element has two curved surfaces in its top surface that form the total internal reflection (“TIR”) region above the LED and a bottom surface above the LED. *Id.* at col. 16 ll. 14–24. The bottom surface works with the TIR region to distribute light within the waveguide. *Id.* at col. 16 ll. 27–48.

Through TIR, the '554 patent solves the bright spot problem by preventing light from shining directly from the light source through the display. The curved portions of the TIR region, however, also create a “dark spot” by completely redirecting light above the LED. *Id.* at col. 14 ll. 58–61. To counter this problem, the '554 patent discloses a rounded bottom TIR surface that is configured to allow a small amount of light to “leak” through its top surface to ensure uniformity in the display. *Id.* at col. 14 l. 61–col. 15 l. 3. This is known as “leaky TIR.” *Id.* at col. 15 ll. 1–3.

Claims 1, 6, 30, and 33–35 of the '554 patent are reproduced below:

1. An illumination device, comprising:

a waveguide having an *illumination coupler* embedded in an interior region of said waveguide, said illumination coupler adapted to receive light from a point source within said interior region, and to direct light between generally parallel top and bottom surfaces outside said interior region, said illumination coupler comprising a refractive index interface which is inclined relative to at least one of said top and bottom surfaces said interface being configured to reflect light rays emitted by the point source which propagate along a line that forms less than the critical angle of total internal reflection with respect to a line lying in one of said top and bottom surfaces, such that light rays which would otherwise pass out of said waveguide are captured for propagation between said top and bottom surfaces.

....

6. The illumination device of claim 1, wherein the waveguide and illumination coupler are integrally formed from a single piece of material.

....

30. An optical apparatus, comprising:

a light emitting diode (LED);

an optical element having top and bottom opposing sides and an edge extending between the top and bottom opposing sides, said LED *mounted at a predetermined location beneath a central portion of said optical element* such that light from the LED enters the optical element, said optical element including a TIR surface spaced from said bottom side and extending from a point above the LED outwardly towards said edges, said TIR surface positioned to receive light emitted by the LED, said TIR surface curving towards the LED

so as to form a cusp above the LED, the curving TIR surface totally internally reflecting light rays such that reflected light rays propagate from the TIR surface towards the edge of the optical element.

....

33. The optical apparatus of claim 30, wherein *said TIR surface is leaky* such that some light emitted by the LED is transmitted therethrough.

34. The optical apparatus of claim 33, wherein said cusp is contoured to permit leakage of light through said TIR surface.

35. The optical apparatus of claim 34, wherein said cusp is rounded to permit leakage of light through said TIR surface.

*Id.* at col. 19 ll. 2–17, col. 19 ll. 31–33, col. 21 ll. 8–23, col. 21 ll. 28–36 (emphases added).

Enplas is a Japanese manufacturer of plastic lenses used in “light bars,” which are used for backlighting displays in flat-screen televisions. SSC is a Korean company that manufactures and sells LEDs, which are also used in light bars for backlighting flat-screen televisions, as well as automotive, smartphone, and lighting applications. From November 2010 to June 2011, SSC and Enplas collaborated to manufacture lenses for SSC’s light bars, which are covered by SSC’s ’209 and ’554 patents. SSC presented testimony that, during this joint development period, SSC employees informed Enplas that the end product, including SSC’s LEDs and Enplas’s lenses, would be covered by SSC’s patents. SSC also presented testimony that it had understood that it would have an exclusive relationship with Enplas for sales of the lenses.

In 2012, however, SSC suspected that Enplas had provided the lenses to SSC's competitors who sold light bar products in the United States. SSC believed that those products infringed the '209 and '554 patents. To confirm its suspicion, SSC purchased several televisions from various retailers in the United States and took them apart for analysis. In particular, SSC purchased a Samsung Display LCD television, which used a lens supplied to Lumens Co., Ltd., and an LG Electronics LED television, which used lenses supplied to LG Innotek. SSC analyzed the televisions and determined that they contained infringing light bars with Enplas's lenses. As a result, SSC sent Enplas a letter alleging that Enplas was inducing and contributing to the infringement of the '209 and '554 patents in the United States.

In response, Enplas filed the present declaratory judgment action against SSC, seeking a declaration that the '209 and '554 patents were invalid and not infringed. SSC counterclaimed, asserting infringement and seeking damages. SSC alleged that Enplas induced its direct and indirect customers to import, use, sell or offer for sale products infringing SSC's patents.

Before trial, Enplas moved for summary judgment that claim 20 of the '209 patent is anticipated by U.S. Patent No. 5,684,354 to Gleckman ("Gleckman"). The district court denied Enplas's motion but converted SSC's opposition into a cross-motion for summary judgment. The district court granted SSC's cross-motion, concluding that no reasonable juror could find that Gleckman anticipates claim 20 of the '209 patent.

The case proceeded to a jury trial on anticipation of the asserted claims of the '554 patent, induced infringement of the '209 and '554 patents, willfulness, and damages. The jury found that Enplas induced infringement of the '209 and '554 patents and that none of the asserted claims of the '554 patent were anticipated by U.S. Patent

No. 3,774,021 to Johnson (“Johnson”) or Japanese Patent Application Publication No. S63-127161 (“JP-161”). Based on SSC’s damages expert testimony, the jury awarded \$4 million in damages for a one-time freedom-to-operate payment for the ’554 patent and \$70,000 for the ’209 patent. The jury verdict form specifically indicated that the one-time freedom to operate payment was for “all [Enplas] products,” including lenses that had not been accused of infringement. J.A. 119, 121. The district court denied Enplas’s pre-trial motions to exclude SSC’s damages expert evidence on the basis that it improperly considered products not alleged or shown to infringe the ’554 and ’209 patents. The district court also denied Enplas’s post-trial motions for JMOL of anticipation of the ’554 patent, no inducement, and excessive damages.

Enplas appeals the district court’s summary judgment and denial of its post-trial motions. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

## DISCUSSION

### I.

#### ANTICIPATION

Enplas appeals the district court’s summary judgment that claim 20 of the ’209 patent is not anticipated by Gleckman and the district court’s denial of JMOL that the ’554 patent is anticipated by Johnson and JP-161. We affirm both judgments.

#### A.

First, Enplas asserts that the district court erred by granting summary judgment that claim 20 of the ’209 patent is not anticipated by Gleckman. We review the district court’s grant of summary judgment under regional circuit law. *MAG Aerospace Indus., Inc. v. B/E Aerospace, Inc.*, 816 F.3d 1374, 1376 (Fed. Cir. 2016). The Ninth Circuit reviews a grant of summary judgment de



novo. *Id.* (citing *Greater Yellowstone Coal. v. Lewis*, 628 F.3d 1143, 1148 (9th Cir. 2010)). Summary judgment is appropriate “if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a).

Gleckman discloses a method of backlighting a display panel comprising LEDs disposed around the periphery of a cavity having reflective walls and an aperture. The question before us is whether Gleckman discloses the “emitted by plural light sources mounted on said internal bottom wall” limitation of claim 20. Although Gleckman does not disclose mounting light sources on the bottom wall as required by the claim, Enplas nonetheless argues that a genuine issue of material fact exists regarding whether Gleckman teaches light sources mounted on the bottom wall. This is so, according to Enplas, because the inventor of the ’209 patent, Dr. Pelka, testified that Gleckman “doesn’t exclude the mounting on the perimeter being on the bottom wall as long as it’s on the perimeter.” J.A. 3413 at 59:12–14. We disagree.

At most, Dr. Pelka’s testimony suggests that Gleckman could have been modified to include light sources on the bottom wall. This is not enough, however, for anticipation. Anticipation requires that a single reference disclose each and every element of the claimed invention. *In re Smith Int’l, Inc.*, 871 F.3d 1375, 1381 (Fed. Cir. 2017) (“A patent claim is anticipated ‘only if each and every element is found within a single prior art reference, arranged as claimed.’” (quoting *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1294 (Fed. Cir. 2015))). Prior art that must be modified to meet the disputed claim limitation does not anticipate the claim. *See, e.g., In re Chudik*, 851 F.3d 1365, 1374 (Fed. Cir. 2017) (“Prior art that ‘must be distorted from its obvious design’ does not anticipate a new invention.” (quoting *In re Wells*, 53 F.2d 537, 539 (CCPA 1931))). We therefore

affirm the district court's summary judgment of no anticipation of claim 20 of the '209 patent.

B.

Second, Enplas asserts that the district court erred by denying JMOL that Johnson anticipates the asserted claims of the '554 patent. We review the district court's denial of JMOL de novo under the law of the Ninth Circuit. *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1319 (Fed. Cir. 2012); *Hangarter v. Provident Life & Accident Ins. Co.*, 373 F.3d 998, 1005 (9th Cir. 2004). A motion for JMOL is properly granted "if the evidence, construed in the light most favorable to the nonmoving party, permits only one reasonable conclusion, and that conclusion is contrary to the jury's verdict." *Escriba v. Foster Poultry Farms, Inc.*, 743 F.3d 1236, 1242 (9th Cir. 2014) (quoting *Pavao v. Pagay*, 307 F.3d 915, 918 (9th Cir. 2002)). Whether a claim is anticipated is a question of fact. *MPHJ Tech. Invs., LLC v. Ricoh Ams. Corp.*, 847 F.3d 1363, 1378 (Fed. Cir. 2017). As a factual question, the "jury's verdict must be upheld if it is supported by substantial evidence that is adequate to support the jury's findings, even if contrary findings are also possible." *Escriba*, 743 F.3d at 1242 (citation omitted).

Johnson generally discloses an LED module that couples light into a planar light guide, e.g., a telephone faceplate, such that discrete remote regions of the faceplate can be illuminated. The issues at trial included whether Johnson discloses (1) the "illumination coupler" required by claims 1 and 6; (2) an "LED mounted at a predetermined location beneath a central portion of said optical element" required by claims 30 and 33–35; and (3) a "TIR surface" that is leaky such that some light emitted by the LED is transmitted through, as required by claims 33–35.

The jury heard testimony from SSC's expert, Dr. Moore, who explained that the illumination coupler of

claim 1 of the '554 patent comprises a top and bottom surface that work in conjunction to direct light from the LED. Dr. Moore explained that the illumination coupler is physically separated from the LED and that this was distinguished from Johnson, which discloses a fully encapsulated LED, not an illumination coupler. Dr. Moore testified that because the LEDs in Johnson are encapsulated, there is no bottom surface of an illumination coupler as required by the '554 patent. Dr. Moore also testified that the LED in Johnson is positioned in the middle of the optical element, not beneath the central portion of the optical element as required by claims 30 and 33–35. Further, Dr. Moore testified that the system disclosed in Johnson was designed to distribute light left and right and that there was no reason in Johnson to allow light to escape from the top surface. Thus, Dr. Moore opined that Johnson does not disclose the “leaky TIR” limitation as required by claims 33–35.

Although Enplas presented conflicting expert testimony, “when there is conflicting testimony at trial, and the evidence overall does not make only one finding on the point reasonable, the jury is permitted to make credibility determinations and believe the witness it considers more trustworthy.” *MobileMedia Ideas LLC v. Apple Inc.*, 780 F.3d 1159, 1168 (Fed. Cir. 2015). We must presume that the jury credited the testimony of Dr. Moore in finding that Johnson does not anticipate the '554 patent. Because the jury’s finding is supported by Dr. Moore’s testimony, as well as the Johnson reference itself, we agree with the district court that the jury’s verdict that Johnson fails to anticipate the '554 patent is supported by substantial evidence.

Finally, Enplas argues that the district court erred by denying JMOL that the asserted claims of the '554 patent are anticipated by JP-161. JP-161 discloses a device that “relates to a light source that distributes the light from a light-emitting diode over [a] large-area surface emitting

light.” J.A. 22516. The device “provide[s] a distributing type surface light source using a light-emitting diode . . . wherein the emitted light from [the] light-emitting diodes is efficiently and uniformly distributed to a light-emitting surface and a large area luminescent device using a small number of light-emitting diodes.” J.A. 22517. The device also comprises reflective back and side surfaces that cover the translucent main surface of the display. At trial, Enplas asserted that JP-161 discloses the “illumination coupler” and capturing of light rays “for propagation between said top and bottom surfaces” required in claim 1 of the ’554 patent. J.A. 15893–94.

SSC, however, also presented competing testimony from Dr. Moore. Dr. Moore explained that JP-161 does not disclose the illumination coupler because there is no “refracting surface at the bottom which allows the light to be refracted at that surface.” J.A. 16056 at 1238:11–14. He further testified that the claimed illumination coupler is physically separated with an air gap to cause refraction into the illumination coupler and that JP-161 is “missing the air gap in the refracting surface.” *Id.* at 1238:15–21. Dr. Moore also testified that the interface in JP-161 does not show “capturing” by total internal reflection, but rather shows “Fresnel refraction,” which allows light to pass out of the waveguide on its second reflection rather than being totally internally reflected. J.A. 16057–58 at 1239:3–1240:11. Here again, we must presume the jury credited Dr. Moore in finding that JP-161 does not anticipate the asserted claims of the ’554 patent. Because the jury’s verdict is supported by Dr. Moore’s testimony, we agree with the district court that the verdict is supported by substantial evidence and affirm its denial of JMOL of no anticipation.

## II.

## INDUCED INFRINGEMENT

Enplas argues the district court erred by denying JMOL of no induced infringement because the trial evidence did not support a finding that it had specific intent to induce infringement in the United States. We review the district court's denial of JMOL de novo under the law of the Ninth Circuit. *ActiveVideo*, 694 F.3d at 1319; *Hangarter*, 373 F.3d at 1005. Questions of knowledge and intent are factual questions for the jury. *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1222 (Fed. Cir. 2014); see *Warsaw Orthopedic, Inc. v. NuVasive, Inc.*, 824 F.3d 1344, 1348 (Fed. Cir. 2016). On appeal, therefore, the sole question is whether substantial evidence supported the verdict. Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Consol. Edison Co. of N.Y. v. NLRB*, 305 U.S. 197, 229 (1938).

"Whoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b). "In order to succeed on a claim of inducement, the patentee must show, first that there has been direct infringement, and second that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement." *Minn. Mining & Mfg. Co. v. Chemque, Inc.*, 303 F.3d 1294, 1304–05 (Fed. Cir. 2002) (internal citations omitted). Mere knowledge of infringement is insufficient. Liability for inducement "can only attach if the defendant knew of the patent and knew as well that 'the induced acts constitute patent infringement.'" *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1926 (2015) (quoting *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 766 (2011)); see also *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006). "Although the text of § 271(b) makes no mention of intent, we infer that at least some intent is required." *Global-*

*Tech*, 563 U.S. at 760. Thus, “specific intent and action to induce infringement must be proven.” *DSU Med. Corp.*, 471 F.3d at 1305 (quoting *Warner-Lambert Co. v. Apotex Corp.*, 316 F.3d 1348, 1364 (Fed. Cir. 2003)). Unlike direct infringement under 35 U.S.C. § 271(a), which must occur in the United States, liability for induced infringement under § 271(b) can be imposed based on extraterritorial acts, provided that the patentee proves the defendant possessed the requisite knowledge and specific intent to induce direct infringement in the United States. *See Merial Ltd. v. Cipla Ltd.*, 681 F.3d 1283, 1302–03 (Fed. Cir. 2012).

Although we recognize that this is a close case, we conclude that the trial record demonstrates that the jury received substantial evidence whereby both Enplas’s knowledge and intent to induce infringement could be reasonably found. At trial, Enplas did not dispute that it knew of the ’209 and ’554 patents. Enplas also did not dispute that it was informed that the product it manufactured, co-developed, and sold to SSC was covered by SSC’s patents. Nor did Enplas dispute that it had a 50% worldwide market share and that Enplas’s customers sold televisions in the United States among other countries.

The jury also received evidence of Enplas and SSC’s prior business relationship, including that Enplas had initially manufactured the lenses specifically for SSC’s light bars, but then sold them to others. SSC also presented testimony that, during the joint development project, SSC employees informed Enplas that the end product, including SSC’s LEDs and Enplas’s lenses, was covered by SSC’s patents. The jury heard testimony that SSC purchased several televisions from various retailers in the United States and determined that they contained infringing light bars with Enplas’s lenses. SSC presented evidence showing that SSC had sent Enplas a pre-suit letter, informing it that SSC had found infringing lenses in televisions sold in the United States and including part

numbers of the light bars having Enplas's lenses. The jury also heard evidence that SSC discussed the letter and its infringement position with Enplas.

SSC also presented evidence that Enplas knew of its 50% worldwide market share, supporting an inference that Enplas knew of the likelihood that its lenses would end up in the United States. In addition, SSC presented evidence that Enplas provided its customers with product specifications that recommended infringing configurations for its accused lenses. As we have recognized, “[p]roviding instructions to use a product in an infringing manner is evidence of the required mental state for inducing infringement.” *Microsoft Corp. v. DataTern, Inc.*, 755 F.3d 899, 905 (Fed. Cir. 2014).

Enplas argues that this evidence does not establish that it *knew* its lenses would be incorporated in U.S. televisions and that in any event mere knowledge is not enough to establish specific intent. We agree that mere knowledge of possible infringement is not enough. *See DSU Med. Corp.*, 471 F.3d at 1305. We conclude, however, that the evidence in this case, while not overwhelming, provides at least circumstantial evidence that would allow a jury to reasonably find that Enplas had knowledge of the patents and of its customers' infringing activity and that it intended to induce their infringement. *See Water Techs. Corp. v. Calco, Ltd.*, 850 F.2d 660, 668 (Fed. Cir. 1988) (“While proof of intent is necessary, direct evidence is not required; rather, circumstantial evidence may suffice.”); *see also Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1322 (Fed. Cir. 2009) (“A plaintiff may . . . prove the intent element [of induced infringement] through circumstantial evidence, just as with direct infringement. . .”). Accordingly, we affirm the district court's denial of JMOL.

## III.

## DAMAGES

Finally, Enplas challenges the district court's denial of JMOL that the jury's \$4 million damages award for the '554 patent was excessive and not supported by substantial evidence. "When reviewing damages in patent cases, we apply regional circuit law to procedural issues and Federal Circuit law to substantive and procedural issues pertaining to patent law." *Whitserve, LLC v. Comput. Packages, Inc.*, 694 F.3d 10, 26 (Fed. Cir. 2012) (quoting *Wordtech Sys., Inc. v. Integrated Networks Sols., Inc.*, 609 F.3d 1308, 1318 (Fed. Cir. 2010)). The Ninth Circuit reviews the denial of JMOL de novo. *Hangarter*, 373 F.3d at 1005.

Enplas argues that the district court erred when it denied JMOL that the damages award was not supported by substantial evidence. Specifically, it contends that the only evidence supporting the \$4 million award was testimony from SSC's damages expert that explicitly and improperly included non-infringing devices in the royalty calculation. Before trial, Enplas filed a *Daubert* motion to exclude this testimony. The district court deferred full consideration of that motion, stating that it was more appropriate for a motion in limine. Enplas filed a motion in limine, seeking to exclude SSC's damages expert's testimony regarding "other lenses" not at issue in this case. The district court denied that motion, holding:

Consistent with this Court's prior rulings, [SSC's expert] cannot assume that infringement can be proven for the lenses not in this case. However, [SSC's expert] may present evidence that under a lump-sum royalty negotiation, [Enplas] would seek to cover all of its *potentially infringing* products. As long as [the] ultimate damages determination is adequately adjusted to



only recover for those lenses in the case, [the] testimony is permitted.

J.A. 13144 (emphasis added). Thus, the district court's order limited SSC's expert to a damages theory based on infringing and "potentially infringing products." *Id.* It did not allow a damages theory based on sales of non-accused products.

At trial, SSC's expert opined that Enplas would have agreed to a lump sum royalty in a hypothetical negotiation for the '554 and '209 patents. She testified that "[i]f the license [were] limited only to the accused lenses . . . the reasonable royalty for the '554 Patent [would be] \$500,000, and for the '209 Patent \$70,000." J.A. 15539 at 722:3–5. She explained that "the \$570,000 covers the[] five products" accused of infringement in this case. J.A. 15534 at 717:1–3. SSC's expert did not stop there, however. She went on to testify that Enplas and SSC would not have limited the license to just the accused products "if there [were] a risk of infringing the patent by manufacturing *other* products that are similar in nature." J.A. 15534 at 717:11–13 (emphasis added). The "more pragmatic approach," explained SSC's expert, would have been for the parties to agree to a premium "freedom to operate" license to avoid the need to test and negotiate licenses for additional or future potentially infringing lenses that Enplas might sell. J.A. 15534–35 at 717:22–718:3.

To determine the premium that Enplas would pay, SSC's expert assessed the volume of sales of all non-accused lenses made by Enplas. Because none of this information had been produced during discovery, SSC's expert found "some publicly-available information from the Enplas website" and used that to "determine what that volume of sales would be." J.A. 15535 at 718:17–25. SSC's expert testified that "the volume of sales" for Enplas's unit that sells lenses "is eight to ten times the sales

of the specific products that we're here to talk about today"—i.e., the accused infringing products. J.A. 15537 at 720:3–7.

Based on this information and theory, SSC's expert testified that Enplas and SSC would have agreed to pay \$2 to 4 million depending on the ultimate "volume of sales of *potentially* infringing products *beyond the ones in this case*." J.A. 15538 at 721:2–5 (emphases added). SSC's expert did not present any explanation or evidence whatsoever to show how the past revenue from Enplas's noninfringing lenses could reasonably estimate the future revenue from Enplas's infringing or potentially infringing lenses. To the contrary, she admitted that her theory was based on limited information:

Q. And why is it that your range is 2-to \$4 million?

A. The range depends upon what you ultimately decide is the volume of sales of *potentially infringing products beyond the ones in this case*. And I don't have any better information on that.

If it were all the products, it would be the upper end of that range, the \$4 million. If it were only half of the products, it would be the lower end of the range.

J.A.15538 at 721:1–8 (emphasis added).

Enplas again objected to SSC's expert's methodology during her direct examination. The district court overruled the objection, holding that its opinion had not changed from its prior rulings on this testimony and that Enplas's objection went to the weight of the testimony, not admissibility.

Following the close of evidence, the district court instructed the jury on damages, in relevant part, as follows:

If you find that [Enplas] induced infringement of any valid claim of the '554 and/or the '209 patent, you must then determine the amount of money damages to be awarded to SSC to compensate it for the infringement.

....

SSC seeks a reasonable royalty in the form of a one-time lump sum for all past and future *infringement* of its patents. If you find that SSC has established induced infringement, SSC is entitled to at least a reasonable royalty to compensate it for that infringement.

....

One way to calculate a royalty, as SSC has intended is appropriate here, is to determine a one-time lump sum payment that the infringer would have paid at the time of the hypothetical negotiation for a license covering all sales of a licensed product both past and future. When a one-time lump sum is paid, the infringer pays a single price for a license covering both past and future *infringing* sales.

Trial Tr. at 1295:6–1296:4, 1296:22–1297:3, *Enplas Display Device Corp. v. Seoul Semiconductor Co.*, No. 13-cv-05038 (N.D. Cal. Mar. 25, 2016) (Dkt. No. 454) (emphases added). Thus, the district court correctly instructed the jury to award damages adequate to compensate SSC for past and future *infringing sales* if the jury found that Enplas induced infringement. The court also instructed the jury that it could award a lump sum for past and future *infringement*.

The jury awarded \$4 million in damages for a one-time freedom-to-operate payment for the '554 patent and \$70,000 for the '209 patent. Enplas moved for JMOL,

renewing its objection to SSC's damages theory, which the district court again denied. In doing so, the court held that SSC's expert's testimony regarding a lump sum freedom-to-operate license complied with its earlier rulings that SSC could present evidence regarding Enplas's potentially infringing products in a hypothetical lump-sum royalty negotiation. The district court also noted that Enplas did not present a damages expert or present evidence to rebut SSC's expert's opinion.<sup>1</sup>

On appeal, Enplas contends that the jury's \$4 million damages award should be overturned because the only evidence supporting the jury's award was based, in part, on non-infringing sales of non-accused Enplas lenses.<sup>2</sup>

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<sup>1</sup> To the extent the district court relied on the failure of Enplas to produce a rebuttal witness to deny JMOL, the district court erred. The burden to prove damages remains with the patentee, and Enplas was not required to produce a witness to rebut SSC's damages theory. *Lucent*, 580 F.3d at 1324.

<sup>2</sup> The dissent contends that Enplas's argument is contrary to our holding in *Versata Software, Inc. v. SAP America, Inc.*, 717 F.3d 1255, 1264 (Fed. Cir. 2013). In *Versata*, we held that it is improper to raise "questions of admissibility of . . . expert testimony" "[u]nder the guise of sufficiency of evidence." *Id.* But this case is distinguishable from *Versata*. There, the appellant's "briefs and statements at oral argument confirm[ed] that its arguments should have been resolved under the framework of *Daubert* and the Federal Rules of Evidence" even though the appellant had "not appealed a *Daubert* ruling." *Id.* For example, the appellant argued in its briefs that "the expert's testimony should have been excluded from evidence, the jury 'should have never heard any lost profits theory,' that 'the district court should not have permitted

We agree. As we have held, a reasonable royalty “cannot include activities that do not constitute patent infringement, as patent damages are limited to those ‘adequate to compensate for the infringement.’” *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324, 1343 (Fed. Cir. 2015) (quoting § 284).

Our decision in *AstraZeneca* is instructive. There, the district court awarded damages that included a royalty on sales made after the asserted patents had expired but during a “pediatric exclusivity period.” *Id.* at 1341. This period barred the FDA from approving competing drug manufacturers’ Abbreviated New Drug Applications for six months beyond the patents’ expiration date. *Id.* The district court reasoned that “the effect of the pediatric exclusivity period, like that of the patent term, is to bar the sale of a generic product until after the expiration of the exclusivity period.” *Id.* Thus, the district court concluded, any license would have included the right to sell the licensed drug during the patent term as well as the pediatric exclusivity period. *Id.* at 1341–42.

We rejected that theory, however, because “[t]he royalty base for reasonable royalty damages cannot include activities that do not constitute patent infringement, as

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Versata’s expert to present his lost profits theory,’ and that his analysis is ‘legally defective.’” *Id.* In contrast, here, Enplas does not argue that the district court should not have admitted SSC’s expert testimony on damages; rather, it contends that the jury’s verdict is not supported by substantial evidence because SSC’s expert testimony on damages—the only evidence that supports the \$4 million damages award—was calculated based, in part, on non-infringing sales. Appellant Br. at 62–63. Thus, Enplas does not improperly raise a question of admissibility under the guise of sufficiency of evidence.

patent damages are limited to those ‘adequate to compensate for the infringement.’” *Id.* at 1343 (quoting 35 U.S.C. § 284). We also cited our decision in *Gjerlov v. Schuyler Laboratories, Inc.*, 131 F.3d 1016, 1024 (Fed. Cir. 1997), explaining that “it [is] improper to award a reasonable royalty damages for the defendant’s sale of the prohibited non-infringing products, because acts that do not constitute patent infringement cannot provide a proper basis for recovery of damages under section 284.” *Id.* at 1344.

Here, SSC’s expert opined that Enplas and SSC would have agreed to a \$2 to 4 million royalty based on a royalty base comprising sales of non-accused lenses. J.A. 15538 at 721:2–5. This testimony cannot support the jury’s damages award, for § 284 and our precedent proscribe awarding damages for non-infringing activity. Thus, the jury’s \$4 million award for infringement of the ’554 patent cannot stand.

We do not find SSC’s attempts to distinguish *AstraZeneca* and *Gjerlov* persuasive. SSC asserts that, unlike this case, “the district court improperly awarded damages for *non-infringing activities*” in *AstraZeneca* and *Gjerlov*. Appellee Br. at 67. But that is precisely what occurred here. The only evidence presented at trial to support a damages award above \$570,000 was SSC’s expert’s damages theory applying a royalty to lenses that were neither accused of infringement nor shown to infringe. SSC presented no other evidence or damages theory to support an award above \$570,000. Nor did SSC’s expert provide any explanation of how past sales revenue for non-accused lenses could predict the future sales revenue of infringing or even potentially infringing lenses. Without such an explanation, her conclusion is wholly inconsistent with our precedent. The expert’s testimony that she arrived at a \$2 million to \$4 million range of possible damages due to the lack of information from which to calculate future infringing sales—as well as

the 100% difference between these upper and lower limits—bolsters this conclusion.

SSC makes much of its expert’s testimony that she was not saying that Enplas would pay damages on non-accused lenses. According to SSC, because its expert characterized her use of the volume of sales of non-accused lenses as a “paid-up, lump sum royalty” to ease an “administrative burden,” her application of a royalty to non-accused lenses was acceptable. Appellee Br. at 65. We disagree. Regardless of the characterization by SSC’s expert, damages calculated by applying a royalty to sales of non-accused lenses cannot support a jury’s verdict on damages.<sup>3</sup> To be sure, we have held that a jury may award a lump-sum, paid-in-full royalty in lieu of a running royalty on future sales. See *Lucent*, 580 F.3d at 1325. But that lump-sum must be based on an estimate of the extent of future sales of accused products, not on past sales of non-accused products.

We therefore vacate the \$4 million damages award for infringement of the ’554 patent and remand for further proceedings on damages. We do not disturb the jury’s award of \$70,000 for infringement of the ’209 patent.

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<sup>3</sup> We acknowledge that patentees may sometimes recover damages for “convoyed sales,” where an unpatented product is sold with the patented product and the two are “analogous to components of a single assembly or [are] parts of a complete machine, or they must constitute a functional unit.” *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1550 (Fed. Cir. 1995) (en banc). We note that the convoyed sales doctrine does not apply here, nor does SSC rely on it.

CONCLUSION

For the foregoing reasons, the district court's summary judgment that claim 20 of the '209 patent is not anticipated is affirmed. We also affirm the district court's denial of JMOL that the asserted claims of the '554 patent are anticipated and affirm its denial of JMOL of no induced infringement. We conclude, however, that the district court erred in denying JMOL that the damages award was not supported by substantial evidence. Accordingly, we vacate and remand the jury's damages award for further proceedings on damages consistent with this opinion.

**AFFIRMED-IN-PART, VACATED-IN-PART, AND  
REMANDED**

COSTS

No costs.



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

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**ENPLAS DISPLAY DEVICE CORPORATION,**  
*Plaintiff-Appellant*

**ENPLAS TECH SOLUTIONS, INC., ENPLAS  
(U.S.A.), INC.,**  
*Plaintiffs*

**v.**

**SEOUL SEMICONDUCTOR COMPANY, LTD.,**  
*Defendant-Appellee*

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2016-2599

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Appeal from the United States District Court for the Northern District of California in No. 3:13-cv-05038-NC, Magistrate Judge Nathanael M. Cousins.

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NEWMAN, *Circuit Judge*, concurring-in-part and dissenting-in-part.

I concur in the court's decision sustaining the validity of the Seoul Semiconductor Company ("SSC") patents in dispute and affirming the judgment of induced infringement. The jury verdicts were reached on correct instructions of law, and are supported by substantial evidence. I must, however, dissent from the reversal of the jury's damages verdict. On the un rebutted testimony presented

to the jury, the verdict is supported by substantial evidence and requires affirmance.

A jury's damages verdict receives substantial deference. See *Los Angeles Mem'l Coliseum Comm'n v. Nat'l Football League*, 791 F.2d 1356, 1365 (9th Cir. 1986) (“[W]e undertake only limited review of jury damages awards, in order to avoid encroaching upon the jury’s proper function under the Constitution.”); *Handgards, Inc. v. Ethicon, Inc.*, 743 F.2d 1282, 1297 (9th Cir. 1984) (“A jury’s finding of the amount of damages must be upheld unless the amount is grossly excessive or monstrous, clearly not supported by the evidence, or only based on speculation or guesswork.” (internal quotation marks omitted) (quoting *Blanton v. Mobil Oil Corp.*, 721 F.2d 1207, 1216 (9th Cir. 1983))). On procedures not unique to patent law, we apply the procedural law of the regional circuit. The standard of review of the jury’s damages verdict is the standard of the Ninth Circuit, the forum of the jury trial. The court today departs from these procedural principles, although these principles constitute binding precedent.

***The District Court Correctly Denied JMOL  
On the Damages Verdict***

This court agrees that the district court correctly instructed the jury on damages. See Maj. Op. at 20. The instruction included: “One way to calculate a royalty, as SSC has intended is appropriate here, is to determine a one-time lump-sum payment that the infringer would have paid at the time of a hypothetical negotiation for a license covering all sales of a licensed product both past and future.” Maj. Op. at 19. My colleagues focus on the uncontroverted expert testimony pertaining to a hypothetical negotiation that would have licensed Enplas under SSC patents for all infringing and potentially infringing products—past, present, and future—rather than a license limited to the accused product. Enplas at trial

presented no challenge to this testimony, which was a realistic focus on the value of business certainty. Nonetheless, my colleagues conduct a de novo hypothetical negotiation on appeal—contrary to the strictures of precedent and practice. *See Slaven v. Am. Trading Transp. Co.*, 146 F.3d 1066, 1069 (9th Cir. 1998), *as amended on denial of reh’g and reh’g en banc* (Aug. 18, 1998) (“It is well-established that an appellate court will not consider issues that were not properly raised before the district court. It follows that if a party fails to raise an objection to an issue before judgment, he or she waives the right to challenge the issue on appeal.”) (internal citations omitted).

The Patent Act’s damages provision, 35 U.S.C. § 284, states that “the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.” *Id.* As explained in *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1544 (Fed. Cir. 1995) (*en banc*), “the language of [35 U.S.C. § 284] is expansive rather than limiting. It affirmatively states that damages must be adequate, while providing only a lower limit and no other limitation.” *Id.*

Neither side argues that the jury’s damages award was not adequate to compensate for the infringement. No argument is presented that the jury awarded less than a reasonable royalty for the use made of the invention. Nonetheless, Enplas argues on appeal that an improper theory was presented by SSC’s damages expert and, thus, the jury verdict is fatally flawed. Enplas is mistaken, in law and in reality, as well as in contravention of standard litigation procedures. *See In re Oracle Corp. Sec. Litig.*, 627 F.3d 376, 386 (9th Cir. 2010) (“[F]ail[ure] to respond to Defendants’ [contentions], and to then challenge the district court’s evidentiary rulings on appeal, is to invite

the district court to err and then complain of that very error. We cannot countenance such a tactic on appeal.”).

Enplas has not appealed the district court’s *Daubert* ruling, see *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993) (the court is the gatekeeper on the admissibility and appropriateness in law and fact of expert testimony). Likewise, Enplas has not appealed the district court’s ruling on the motion in limine:

Consistent with this Court’s prior rulings, [SSC’s expert] cannot assume that infringement can be proven for the lenses not in this case. However, [SSC’s expert] may present evidence that under a lump-sum royalty negotiation, [Enplas] would seek to cover all of its potentially infringing products. As long as [the expert’s] ultimate damages determination is adequately adjusted to only recover for those lenses in the case, [the expert’s] testimony is permitted.

J.A. 13144 (“Order on Motion in Limine”). The evidence at trial comported with these evidentiary rulings. Enplas does not argue on appeal that it presented any evidence, expert or otherwise, contradicting this damages theory as applied in any hypothetical negotiation.

On appeal, Enplas asks the question: “Whether the district court erred in denying judgment as a matter of law that the damages award was not supported by the evidence, where the damages expert explicitly included non-infringing devices in her royalty calculation.” Appellant Br. 2. This is a grossly inaccurate description of the expert’s testimony, for non-infringing devices were not “explicitly included” by the expert. To the contrary, the expert estimated sales of “potentially infringing products

beyond the ones in this case,” J.A. 15538,<sup>1</sup> and testified that

if [Enplas] wanted [] a freedom-to-operate license, and they were pragmatic about it, they would be willing to pay 2- to \$4 million in order to ensure that they’d never have to worry about testing these products and negotiating other licenses for those products in the future. . . . The range depends upon what you ultimately decide is the volume of sales of potentially infringing products beyond the ones in this case.

J.A. 15537–38 (Trial Tr. at 718:20–721:4). The lump-sum reflects a reasonable royalty that the infringer would have been willing to pay on hypothetical negotiation under the circumstances that existed.

On appeal, review of the district court’s action on a motion for judgment as a matter of law is governed by the standards of the regional circuit. *See InTouch Techs., Inc., v. VGO Commc’ns, Inc.*, 751 F.3d 1327, 1338 (Fed. Cir. 2014). “[I]n entertaining a motion for judgment as a matter of law, the court should review all of the evidence in the record.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000); *see Escriba v. Foster Poultry Farms, Inc.*, 743 F.3d 1236, 1242 (9th Cir. 2014) (“Reviewing a renewed motion for JMOL requires scrutiny of the entire evidentiary record . . .”). Thus, on appeal from the denial of JMOL, review is based on all the evidence before the jury, drawing all reasonable inferences in favor of the non-moving party, whereby we decide wheth-

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<sup>1</sup> Transcript of Proceedings 721:3–4, *Enplas Display Device Corp. v. Seoul Semiconductor Co.*, No. 3:13-cv-05038-NC (N.D. Cal. Mar. 25, 2016), (No. 452) (“Trial Tr.”).

er such evidence constituted substantial evidence in support of the verdict. *See Josephs v. Pac. Bell*, 443 F.3d 1050, 1062 (9th Cir. 2006).

The Ninth Circuit has explained that judgment as a matter of law is proper when “the evidence, construed in the light most favorable to the nonmoving party, permits only one reasonable conclusion, and that conclusion is contrary to the jury’s verdict.” *Pavao v. Pagay*, 307 F.3d 915, 918 (9th Cir. 2002). “A jury’s verdict must be upheld if it is supported by substantial evidence, which is evidence adequate to support the jury’s conclusion, even if it is also possible to draw a contrary conclusion.” *Id.* Further, “we cannot reverse [the jury’s] findings merely because our reading of the evidence might have been different, especially where the district court concluded that the evidence at trial was sufficient to support the verdict . . . .” *Passantino v. Johnson & Johnson Consumer Prod., Inc.*, 212 F.3d 493, 513 (9th Cir. 2000) (internal quotation marks omitted).

Here, the district court ruled that the testimony regarding the freedom-to-operate royalty negotiation was admissible. This testimony was the only evidence presented to the jury on the hypothetical negotiation. It is not reasonable to draw a contrary conclusion from the record before the jury. *See Pavao*, 370 F.3d at 918 (JMOL is proper when “the evidence, construed in the light most favorable to the nonmoving party, permits only one reasonable conclusion, and that conclusion is contrary to the jury’s verdict.”); *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984) (“In sum, only when the court is convinced upon the record before the jury that reasonable persons could not have reached a verdict for the non-mover, should it grant the motion for JNOV.”). On this basis, the uncontradicted expert testimony constitutes substantial evidence supporting the jury verdict.

The district court did not depart from the law of damages and the rules for review of jury verdicts. In *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d 1255 (Fed. Cir. 2013), this court admonished the appellant for attacking the admissibility of expert testimony in the same manner as have Enplas and now the panel majority:

According to SAP, the jury's lost profits award should be set aside for four reasons. The first two reasons relate to the methodology used by Versata's expert. SAP avers that Versata's "but for" model is "inconsistent with sound economic principles," and thus "[the expert's] opinion should have been excluded from evidence." Appellant's Br. 46. Similarly, SAP claims Versata's expert did not adhere to the *Panduit* framework because he used multiple markets thereby rendering his analysis "legally defective." *Id.* at 50.

The court rejects these two arguments as improperly raised. Under the guise of sufficiency of the evidence, SAP questions the admissibility of Versata's expert testimony and whether his damages model is properly tied to the facts of the case. Such questions should be resolved under the framework of the Federal Rules of Evidence and through a challenge under *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993).

*Id.* at 1264.

Enplas appeals the district court's JMOL denial, and argues that SSC's expert testimony regarding a hypothetical negotiation for a freedom-to-operate license was insufficient to support the jury's damages assessment. Such questions should be resolved under the framework of the Federal Rules of Evidence and through a *Daubert* challenge. Nonetheless, Enplas and now my colleagues challenge admissibility under the guise of substantial evidence. Precedent is directly on point:

Whether evidence is inadmissible is a question clearly within the scope of the rules of evidence and *Daubert*. However, SAP has not appealed a *Daubert* ruling. Instead, it argues that the jury could have not had sufficient evidence to award lost profits because the expert's testimony was factually flawed and should not have been admitted. This is the improper context for deciding questions that, by SAP's own admissions, boil down to the admissibility of evidence.

*Versata*, 717 F.3d at 1264.

In direct analogy, the district court herein properly allowed SSC's damages expert to testify concerning a hypothetical negotiation for a freedom-to-operate license. Deference is owed to the district court's evidentiary ruling, which comports with precedent. *See Harper v. City of Los Angeles*, 533 F.3d 1010, 1030 (9th Cir. 2008) ("We afford broad discretion to a district court's evidentiary rulings."); *see also Zhang v. Am. Gem Seafoods, Inc.*, 339 F.3d 1020, 1038 (9th Cir. 2003) ("We must accept any reasonable interpretation of the jury's actions, reconciling the jury's findings by exegesis if necessary . . . ; a search for one possible view of the case which will make the jury's finding inconsistent results in a collision with the Seventh Amendment.") (internal citations omitted). The majority's view produces such a collision.

***Substantial Evidence Supports the Jury's Verdict Based on a Lump-Sum Freedom-to-Operate License***

This court explained in *Lucent Technologies, Inc. v. Gateway, Inc.*, "[t]he hypothetical negotiation tries, as best as possible, to recreate the ex ante licensing negotiation scenario and to describe the resulting agreement." 580 F.3d 1301, 1325 (Fed. Cir. 2009). The goal is to "accurately reflect[] the real-world bargaining that occurs, particularly in licensing." *Exmark Mfg. Co. v. Briggs &*



*Stratton Power Prods. Grp., LLC*, 879 F.3d 1332, 1349 (Fed. Cir. 2018). We have observed that “[a] key inquiry in the analysis is what it would have been worth to the defendant, as it saw things at the time, to obtain the authority to use the patented technology . . . .” *Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, 807 F.3d 1283, 1304 (Fed. Cir. 2015).

At trial, the only damages expert opined that Enplas, in a hypothetical negotiation, would have agreed to pay \$2 -to 4 million for a freedom-to-operate license, thereby avoiding the burdens and uncertainties associated with monitoring, testing, and complying with a license of limited scope that would have been only applicable to a single product. The expert discussed the benefits, to both parties, of a freedom-to-operate patent license—elimination of uncertainty and pragmatic administration. A license is intended to alleviate business uncertainty; no precedent limits the hypothetical negotiation to consideration of a single product. This testimony was correctly held admissible, for the cost and disruption of separate litigation over every existing and future product within the possible scope of the patent is a reasonable consideration in license negotiations. *See Rude v. Westcott*, 130 U.S. 152, 164 (1889) (“The avoidance of the risk and expense of litigation will always be a potential motive for a settlement.”).

The district court was correct in allowing the jury to hear testimony to this effect. “Questions about what facts are most relevant or reliable to calculating a reasonable royalty are for the jury.” *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 856 (Fed. Cir. 2010), *aff’d*, 564 U.S. 91 (2011). SSC’s damages expert testified to a legally permissible theory for a hypothetical negotiation. The expert explained the methodology to the jury, testifying at trial:

Q. So in the real world, how would this license have been negotiated in your opinion?

A. The more pragmatic approach would be for the parties to decide that the royalty -- some premium should be paid in order for the right to avoid this ongoing hassle of testing and licensing additional products. So that the freedom to operate in other words, peace of mind that you no longer have to negotiate for every future product that you might sell.

Q. And earlier today you said that you were assuming that the products at issue infringed the Patents-in-Suit; Correct?

A. Yes.

Q. And are you now assuming that other products infringe the Patents-in-Suit?

A. No.

Q. And are you seeking -- are you saying that EDD [Enplas Display Device Corp.] would pay for damages on products that aren't said to infringe the Patents-in-Suit?

A. No. I'm simply saying that they would be willing to pay a premium to avoid the complications of going through this negotiation process for every other product they might choose to sell. So it's an insurance policy.

Q. And did you determine this premium that EDD would pay?

A. Yes.

Q. And how did you go about doing that?

A. What I did was look at the best information I had available on the volume of sales of other

lenses by EDD. And while EDD did not provide any of that information in this case, there is some publicly-available information from the Enplas web site that I relied upon to determine what that volume of sales would be.

...

Q. Do you recognize this document?

A. I do.

Q. And what is this?

A. This is another page from my report that reflects the revenue and gross margin for the Enplas plastic optical. The plastic optical business, according to the Enplas web site and the documents on it, later became EDD.

...

Q. So the revenue on the top line, is that what you were looking at?

A. Yes. The sources for this are shown at the bottom of the page. But I obtained this information directly from the Enplas Corporation business plans that were on the Enplas web site, because that's the only information I have. So I captured the revenue number on top as well as the gross margin down below. The revenue number is stated in Japanese Yen. Once you convert that to U.S. dollars, what you learn is that the volume of sales for the entire business that sells the lenses is eight to ten times the sales of the specific products that we're here to talk about today.

J.A. 15534–37 (Trial Tr. 717:20–720:7). The expert further testified:

Q. And why is it that your range is 2- to \$4 million?

A. The range depends upon what you ultimately decide is the volume of sales of potentially infringing products beyond the ones in this case. And I don't have any better information on that. If it were all the products, it would be the upper end of that range, the \$4 million. If it were only half of the products, it would be the lower end of the range. Or you may determine if EDD ultimately provides you better information, that some other factor is appropriate.

J.A. 15538 (Trial Tr. 721:1–10).

No challenge to this testimony was raised during cross-examination at trial, and no contrary damages theory or estimate was presented. Enplas did not question the methodology or the underlying data for the freedom-to-operate damages theory; the cross-examination was focused on prior license agreements and figures underlying the expert's other theory for a hypothetical negotiation, a theory the expert characterized as "an endless stream of serial negotiations. And [] not something that's done in the real world." J.A. 15534 (Trial Tr. 717:18–19). "This court has recognized that estimating a reasonable royalty is not an exact science. The record may support a range of reasonable royalties, rather than a single value. Likewise, there may be more than one reliable method for estimating a reasonable royalty." *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1296 (Fed. Cir. 2015).

My colleagues state that "Enplas was not required to produce a witness to rebut SSC's damages theory." Maj. Op. at 20 n.1. While this is correct in the abstract, it does not atone for Enplas' litigation decision to leave the damages theory un rebutted. "Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but

admissible evidence.” *Daubert*, 509 U.S. at 596. The failure to provide contrary evidence, or even challenge the evidence SSC presented, may well have affected the jury’s verdict.

Here, the damages testimony was clearly relevant, the jury was correctly instructed, and the verdict was in conformity with the evidence. There is no basis to overturn the denial of JMOL, for substantial and un rebutted evidence supported the jury verdict. *See Cataphote Corp. v. De Soto Chem. Coatings, Inc.*, 356 F.2d 24, 26 (9th Cir.), *opinion modified on denial of reh’g*, 358 F.2d 732 (9th Cir. 1966) (“It is not [the Appellate Court’s] function to reevaluate the evidence presented below. We cannot substitute our judgment for the first-hand evaluation made by the trier of fact. Pursuant to Rule 52(a) of the Federal Rules of Civil Procedure our obligation is to determine if the findings below were ‘clearly erroneous.’ This statutorily imposed standard does not vests us with power to reweigh the evidence presented at trial in an attempt to assess which items should and which should not have been accorded credibility.”). It is not the appellate judge’s role to provide the evidence that a party declined to provide at trial.

### ***The Appellant Misapplies AstraZeneca***

Enplas also offers an unsupportable interpretation of *AstraZeneca AB v. Apotex Corp.*, 782 F.3d 1324 (Fed. Cir. 2015), now accepted in the majority’s opinion. *See* Maj. Op. at 21–22. This court stated in *AstraZeneca* that “a reasonable royalty cannot include activities that do not constitute patent infringement, as patent damages are limited to those adequate to compensate for the infringement,” *AstraZeneca*, 782 F.3d at 1343 (internal quotation marks omitted), responding to the question of: whether damages may include a post-expiration pediatric exclusivity period. *See id.* at 1342. The court stated that “it is clear that Apotex did not infringe Astra’s patents during

the exclusivity period, since those patents had expired.” *Id.* at 1343.

Unlike *AstraZeneca*, which held that an expired patent could not be infringed, the hypothetical negotiation in the present case assumes that SSC’s patent is valid and infringed. *Cf. Lucent Techs.*, 580 F.3d at 1325 (“The hypothetical negotiation also assumes that the asserted patent claims are valid and infringed.”).

Here, the issue of a hypothetical freedom-to-operate negotiation is, whether a potential infringer would reasonably include all potentially infringing products in a paid-up license, in order to avoid the uncertainty of possible infringement and further litigation. The panel majority misstates the record, in stating that “SSC’s damages expert [] explicitly and improperly included non-infringing devices in the royalty calculation.” Maj. Op. at 16. As quoted ante, the damages expert answered “No” when asked: “[A]re you saying that EDD would pay for damages on products that aren’t said to infringe the Patents-in-Suit?” J.A. 15535 (Trial Tr. 718:10–12).

Throughout the trial, it was emphasized that the proposed measure of damages was freedom to operate under SSC patents. The expert testified, and Enplas did not dispute, that the cost and disruption of litigation and disagreements favor such business considerations. No rule excludes reasonable business considerations from a hypothetical negotiation. Rather than look only at units of infringement, SSC’s damages expert testified as to what would have been reasonable compensation for a freedom-to-operate patent license. And the expert explained why such a license would have been beneficial to the parties. This testimony aligns with *AstraZeneca* and was unopposed by Enplas, and is substantial evidence in support of the jury’s verdict.

*SUMMARY*

The Court has cogently stated: “Few bodies of law would be more difficult to reduce to a short and simple formula than that which determines the measure of damage recoverable for actionable wrongs.” *F. W. Woolworth Co. v. Contemporary Arts Inc.*, 344 U.S. 228, 232 (1952). Until today, “we have never laid down any rigid requirement that damages in all circumstances be limited to specific instances of infringement proven with direct evidence.” *Lucent Techs.*, 580 F.3d at 1334. Faced with unopposed expert testimony describing a hypothetical negotiation for a freedom-to-operate license, my colleagues “create a hypothetical negotiation far-removed from what parties regularly do during real-world licensing negotiations.” *Id.*

The damages verdict was the product of correct jury instructions, and testimony on examination and cross-examination before the jury. The lump-sum verdict was for “all past and future infringement,” Maj. Op. at 19, as the jury was instructed. My colleagues’ insistence that the payment was for non-infringing products was not presented at trial, and has no support in the record. The jury verdict is supported by substantial evidence, and should be affirmed. I respectfully dissent from the court’s contrary ruling.