United States Court of Appeals for the Federal Circuit

ECOFACTOR, INC.,
Plaintiff-Appellee

v.

GOOGLE LLC,
Defendant-Appellant

2023-1101

Appeal from the United States District Court for the Western District of Texas in No. 6:20-cv-00075-ADA, Judge Alan D. Albright.

Decided: June 03, 2024

BRIAN DAVID LEDAHL, Russ August & Kabat, Los Angeles, CA, argued for plaintiff-appellee. Also represented by MINNA CHAN, KRISTOPHER DAVIS, MARC A. FENSTER, REZA MIRZAIE, JAMES PICKENS.

ROBERT A. VAN NEST, Keker, Van Nest & Peters LLP, San Francisco, CA, argued for defendant-appellant. Also represented by KRISTIN ELIZABETH HUCEK, LEO L. LAM, ROBERT ADAM LAURIDSEN, EUGENE M. PAIGE.

Before LOURIE, PROST, and REYNA, *Circuit Judges*.

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

Opinion dissenting-in-part filed by *Circuit Judge* PROST.

REYNA, *Circuit Judge*.

EcoFactor sued Google in the Western District of Texas alleging patent infringement of U.S. Patent No. 8,738,327. After discovery and resolution of various motions, the case was heard by a jury. The jury found that Google infringed the asserted claim 5 of the '327 patent and awarded damages to EcoFactor. Google appeals three of the district court's orders: the denial of Google's motion for summary judgment that claim 5 of the '327 patent was invalid under 35 U.S.C. § 101; the denial of Google's motion for judgment as a matter of law of non-infringement of the '327 patent; and the denial of Google's motion for a new trial on damages. For the following reasons, we affirm.

BACKGROUND

A. U.S. Patent No. 8,738,327

U.S. Patent No. 8,738,327 ("'327 patent") relates generally to the operation of smart thermostats in computer-networked heating and cooling systems ("HVAC systems"). The primary recited purpose of the patent is to reduce strain on the electricity grid during a period of expected high demand through adjustments to the user's thermostat settings that reduce the electricity consumed by the user's HVAC system. '327 patent at 1:21–27, 9:46–54. Claim 1 of the '327 patent recites a system "for controlling the operational status of an HVAC system" where "at least one thermostat [is] associated with a structure that receives temperature measurements from inside the structure." *Id.* at 9:26–31. Claim 1 includes an "estimation" limitation where "one or more servers receive inside temperatures from the thermostat and compare[] the inside temperatures of the structure and the outside temperatures over time *to derive an estimation for the rate of change* in inside temperature of the structure in response to outside

temperature." *Id.* at 9:38–45 (emphasis added). Claim 5 adds that "the estimation [limitation in claim 1] is a prediction about the future rate of change in temperature inside the structure." *Id.* at 9:65–67.

B. Procedural History

EcoFactor, owner of the '327 patent, sued Google for patent infringement over Google's smart thermostat products, particularly several Nest thermostats.[1] After discovery, Google moved for summary judgment that certain claims of the '327 patent (including claim 5) were invalid because they were directed to patent ineligible subject matter, an abstract idea, under 35 U.S.C. § 101. The district court denied the motion. J.A. 5046.

The district court also denied Google's *Daubert* motion to exclude the opinion of EcoFactor's damages expert, Mr. Kennedy, rejecting Google's argument that Mr. Kennedy's opinion was unreliable and therefore prejudicial. J.A. 2254.

Following a six-day jury trial, the jury found that Google infringed claim 5 of the '327 patent and awarded EcoFactor damages. J.A. 45–49. Google renewed its motion for judgment as a matter of law ("JMOL") of non-infringement of the '327 patent, arguing that the accused products do not measure, but rather, estimate the temperature inside the structure and therefore cannot infringe. Google also moved for a new trial on damages, arguing that the opinion of EcoFactor's damages expert, Mr. Kennedy, was speculative and unreliable such that it should have been excluded from trial. The district court denied both motions from the bench. J.A. 6662; J.A. 6688.

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[1] Google acquired Nest Labs, Inc. prior to the underlying lawsuit.

Google appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

DISCUSSION

Google raises three issues on appeal.[2] First, Google contends the district court erred in denying Google's motion for summary judgment that claim 5 of the '327 patent was directed to patent ineligible subject matter under § 101. Second, Google asserts the district court erred in denying Google's JMOL motion for non-infringement of the '327 patent. Third, Google contends the district court erred in denying Google's motion for a new trial on damages because Mr. Kennedy's damages opinion was based on unreliable methodology. We address each issue in turn.

I. Patent Eligibility

Google appeals the district court's denial of summary judgment that claim 5 of the '327 patent was patent ineligible under § 101.

Section 101 of the Patent Act provides that: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. The Supreme Court has articulated a two-step test, commonly referred to as the "*Alice*" test, for examining whether a patent claims patent-ineligible subject matter. *Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 573 U.S.

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[2] This appeal was originally consolidated and included an original appeal by EcoFactor and cross-appeal by Google. The consolidated appeal contained other patents and issues. Prior to oral argument, the parties stipulated to the dismissal of the original appeal by EcoFactor, Appeal No. 22–1974, leaving only Google's cross-appeal involving the '327 patent. *See* Appeal No. 22–1974, ECF No. 59 at 7.

208, 217–18 (2014). At *Alice* step one, we review whether a claim is directed to a patent-ineligible concept, such as an abstract idea. *Id.* At *Alice* step two, we review whether the claim recites elements sufficient to transform the abstract idea into a patent-eligible application. *Id.* at 217–18, 221.

Prior to trial, Google filed a motion for summary judgment, arguing that claim 5 of the '327 patent (among others) was invalid as directed to patent ineligible subject matter under § 101. The district court reviewed the motion, relying on the *Alice* inquiry. The district court denied the motion and submitted step two of the *Alice* inquiry to the jury. J.A. 5046.

At trial, the verdict form asked whether Google met its burden to prove by clear and convincing evidence that the elements of claim 5 of the '327 patent, when taken individually and as an ordered combination, involved activities or technology that were well-understood, routine, or conventional to a skilled artisan at the time of the invention. J.A. 47. After hearing testimony and receiving evidence from both parties, the jury answered "no" for claim 5 of the '327 patent. J.A. 47. Google filed a post-trial JMOL motion repeating its § 101 arguments, which the district court denied.

Google now appeals the district court's denial of summary judgment regarding patent ineligibility of claim 5 of the '327 patent, but we have held that a district court's denial of summary judgment is not appealable after a trial on the merits. *Syngenta Crop Prot., LLC v. Willowood, LLC,* 944 F.3d 1344, 1364 n.7 (Fed. Cir. 2019) (citing *Ortiz v. Jordan*, 562 U.S. 180, 183–84 (2011)); *see also* 10 Wright and Miller, Federal Practice and Procedure § 2715 (4th ed.) (explaining a denial from summary judgment is an order "from which no immediate appeal is available"). We have explained that an order denying summary judgment is "not a judgment" and "does not foreclose trial on the issues on which summary judgment was sought;" rather, it is

"merely a judge's determination that genuine issues of material fact exist." *Glaros v. H.H. Robertson Co.*, 797 F.2d 1564, 1573 (Fed. Cir. 1986) (reasoning that a denial of summary judgment "does not settle or even tentatively decide anything about the merits of the claim" (citation omitted)). Denial of summary judgment decides only one thing—that the case should go to trial. *Id.*

At trial, the jury heard testimony from various witnesses on whether the elements of claim 5 were well-understood, routine, or conventional. *See, e.g.*, J.A. 5345–5346 (209:20–210:6); J.A. 6373–6374 (1237:15–1238:19); J.A. 6415–6416 (1279:1–1280:20); J.A. 6449–6451 (1313:17–1315:11). Google, however, appeals the order denying summary judgment but not the jury verdict of ineligibility. As the Supreme Court has explained, "the full record developed in court supersedes the record existing at the time of the summary-judgment motion." *Ortiz*, 562 U.S. at 184. Because trial on the merits of the § 101 issue was held, the court's denial of summary judgment is not appealable.

II. Infringement

For infringement, the only limitation at issue is claim 1's recitation of a system for controlling the HVAC system that includes a thermostat "that receives temperature measurements from inside the structure." '327 patent at 9:26–31. Google alleges that because the accused thermostat products are designed to be completely enclosed in metal, plastic, and/or glass housings, they cannot directly measure the surrounding ambient temperature "inside the structure" like other thermostats.[3] Appellant Br. 41–44.

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[3] The parties agree that the term "ambient temperature" refers to the temperature surrounding a particular thermostat, *i.e.*, the temperature of the room or structure

Google argues that its thermostats can only derive an estimate of the ambient temperature by measuring only the temperature within the thermostat housing itself, which is not "inside the structure." *See id.* As a result, Google argues that the jury's verdict of infringement is unsupported by substantial evidence.

We review the disposition of motions for JMOL under the law of the regional circuit, here the Fifth Circuit. *See Energy Transp. Grp. Inc. v. William Demant Holding A/S*, 697 F.3d 1342, 1350 (Fed. Cir. 2012). The Fifth Circuit reviews de novo the grant or denial of a JMOL motion. *ClearValue, Inc. v. Pearl River Polymers, Inc.*, 668 F.3d 1340, 1343 (Fed. Cir. 2012). Under Fifth Circuit law, a jury's verdict is upheld if supported by substantial evidence. *Med. Care Am., Inc. v. Nat'l Union Fire Ins. Co.*, 341 F.3d 415, 420 (5th Cir. 2003).

We conclude that the jury's infringement verdict is supported by substantial evidence. EcoFactor's infringement expert testified that the accused thermostat products meet the claimed limitation because the thermostats measured temperature of the structure and not just the temperature within the thermostat housing. J.A. 5462–63 (326:20–327:6). EcoFactor's expert supported his conclusion with several forms of evidence. EcoFactor's expert relied on website guides maintained by Google for the benefit of software engineers who develop applications for use with Nest thermostats. One website page states that the Nest thermostats measure the "[a]mbient temperature," defined as the "temperature measured *near the thermostat*"—not just within the thermostat. J.A. 10429 (emphasis added). Another website page explains that the temperature sensors of certain Nest products measure ambient room temperature. J.A. 10888. EcoFactor's expert testified that this

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in which the thermostat is placed. Appellant Br. 13, 43; Appellee Br. 1, 9–10.

evidence shows that the Nest thermostat "devices have temperature measurements near the thermostat" that measures the "inside temperature" of the structure and are not limited to measuring temperature inside the thermostat housing. J.A. 5453–55 (317:17–319:14). EcoFactor's expert cited Google's source code for the accused products and demonstrated where it described the function of the accused products to measure the surrounding temperature. J.A. 5456–60 (320:18–324:14).

Google's experts conceded the substance of EcoFactor's evidence on cross-examination. Google's non-infringement expert agreed that, according to Google's website pages, the current ambient temperature in the room is measured by the Nest thermostat's internal sensors. J.A. 6154–55 (1018:9–1020:13). Another Google expert witness agreed that the accused thermostat products contain temperature sensors that measure the temperature inside customer homes. J.A. 5945–46 (809:4–809:17).

The expert testimony from both parties, documentary evidence, and source code information demonstrating that the accused products measure temperature of the surrounding structure (and not just the housing) is substantial evidence. *See In re Mouttet*, 686 F.3d 1322, 1331 (Fed. Cir. 2012) (explaining substantial evidence is "relevant evidence as a reasonable mind might accept as adequate to support a conclusion").

In conclusion, the jury's infringement verdict that the accused Nest thermostat products satisfy the claim language of "receives temperature measurements from inside the structure" is supported by substantial evidence.

III. Damages

Google argues that the district court abused its discretion in denying its Rule 59 motion for a new trial on damages. Appellant Br. 30. According to Google, a new trial on damages was warranted because the initial trial was

unfair or marred by prejudicial error. *Id.* at 25; J.A. 6689 (91:4–8). The alleged error was the district court's evidentiary ruling that the opinion of EcoFactor's damages expert, Mr. Kennedy, was admissible. Appellant Br. 25, 30. Google argues that Mr. Kennedy's damages opinion should have been excluded from trial because it lacked any reliable methodology or underlying calculations. *Id.* at 30. Google also argues that Mr. Kennedy's opinion should have been excluded for lack of comparability and apportionment. *Id.* at 34. We address each argument in turn.

We review the denial of a motion for a new trial under regional circuit law. *Wordtech Sys., Inc. v. Integrated Networks Sols., Inc.*, 609 F.3d 1308, 1312 (Fed. Cir. 2010). The Fifth Circuit reviews a district court's denial of a motion for a new trial for an abuse of discretion. *Fornesa v. Fifth Third Mortg. Co.*, 897 F.3d 624, 627 (5th Cir. 2018). A new trial may be granted if the district court finds that "the verdict is against the weight of the evidence, the damages awarded are excessive, the trial was unfair, or prejudicial error was committed." *Seidman v. Am. Airlines, Inc.*, 923 F.2d 1134, 1140 (5th Cir. 1991) (citation omitted); Fed. R. Civ. P. 59. "Courts do not grant new trials unless it is reasonably clear that prejudicial error has crept into the record or that substantial justice has not been done, and the burden of showing harmful error rests on the party seeking the new trial." *Jordan v. Maxfield & Oberton Holdings, L.L.C.,* 977 F.3d 412, 417 (5th Cir. 2020) (citation omitted).

Here, Mr. Kennedy used the hypothetical negotiation approach for calculating reasonable royalty damages under 35 U.S.C. § 284. This approach "necessarily involves an element of approximation and uncertainty." *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1325 (Fed. Cir. 2009) (citation omitted); *see also generally* 2 Janice M. Mueller, *Mueller on Patent Enforcement* § 20.04(a) at 869–70 (rev. ed. 2019). According to Mr. Kennedy, EcoFactor would have entered the hypothetical negotiation with the

expectation of receiving a royalty in the amount of $X[4] per unit and would have requested that from Google. J.A. 1277. Based on this $X rate, Mr. Kennedy calculated his proposed damages amount of $Y[5]. J.A. 5740 (604:14–17).

A.

Google argues that Mr. Kennedy's damages model was speculative and conclusory. Appellant Br. 31. Specifically, Google argues that Mr. Kennedy's proposed $X royalty rate was "plucked . . . out of nowhere." *Id.* at 34 (citation omitted). We disagree.

"[W]hile all [damages] approximations involve some degree of uncertainty, the admissibility inquiry centers on whether the methodology employed is reliable." *Summit 6, LLC v. Samsung Elecs. Co.,* 802 F.3d 1283, 1296 (Fed. Cir. 2015). This includes whether a damages expert's testimony is tied to the particular facts of the case. *Virnetx*, *Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1333–34 (Fed. Cir. 2014); *Whitserve, LLC v. Comput. Packages, Inc.*, 694 F.3d 10, 30 (Fed. Cir. 2012); *Lucent Techs.*, 580 F.3d at 1330. Testimony is inadmissible when it is based only on speculation or guesswork, such that the jury is left to fill in the gaps when calculating a damages award. *Whitserve*, 694 F.3d at 30–33 (holding that testimony was conclusory and speculative when expert did not explain how lump sum amounts could be converted to a reasonable royalty rate); *Wordtech*, 609 F.3d at 1320 (holding that expert's reliance on two

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[4] The amount of the per-unit royalty rate is confidential business information subject to a protective order, and as such, is not recited in this opinion.

[5] The amount of EcoFactor's proposed damages award is confidential business information subject to a protective order, and as such, is not recited in this opinion.

lump licenses was inappropriate when neither explained how the lump-sum amounts were calculated).

Far from plucking the $X royalty rate from nowhere, Mr. Kennedy based this rate on the following admissible evidence: three license agreements and the testimony of EcoFactor's CEO, Mr. Habib. Turning first to the agreements, Mr. Kennedy relied on three license agreements EcoFactor entered into with third-party smart thermostat manufacturers—the Schneider and Daikin licenses in 2020, and the Johnson license in 2021. J.A. 10389–399; J.A. 10400–410; J.A. 10411–419. Each of these agreements included the same $X royalty rate at issue here. Each license agreement provided in a whereas clause that the licensee would pay EcoFactor a lump sum amount "set forth in this Agreement *based on* what EcoFactor believes is a reasonable royalty calculation of *[$X] per-unit* for . . . estimated past and [] projected future sales of products accused of infringement in the Litigation." J.A. 10389 (emphasis added); J.A 10400; J.A. 10411. Thus, as Mr. Kennedy testified at trial, the $X royalty rate was "specifically spelled out in the license agreement[s]." J.A. 5764 (628:2–3).

Mr. Kennedy then relied on the testimony of EcoFactor's CEO, Mr. Habib, who signed the three license agreements on behalf of EcoFactor. J.A. 5794 (658:17–18); J.A. 5666 (530:23–25); J.A. 5669 (533:6–8). Mr. Habib testified that he had seven years in the industry, an understanding of the market, and "what is reasonable for the technologies that [EcoFactor] ha[s]." J.A. 5670 (534:22–25). He then testified that the lump sums contained in each of the three license agreements were based on the $X royalty rate. J.A. 5672, 536:17–18 ("[M]y understanding was that all of it is based on [$X] per infringing unit."). He testified that while he was shielded from the licensees' confidential sales information, he understood that EcoFactor calculated each of the three licenses' lump sums using the $X royalty rate and the past and future

projected sales for each licensee. J.A. 5798 (662:2–5); J.A. 5670 (534:4–10). He also testified that despite being shielded from the licensees' confidential sales numbers, he believed, based on his understanding of the market, that the lump sums reasonably reflected the licensees' sales. J.A. 5672 (536:14–24). According to Mr. Habib, there were "large players" and high barriers to entry in the smart thermostat and smart HVAC control industry, and the licensees were "relatively new or more recent." J.A. 5672 (536:19–24). Thus, "it ma[de] sense that their sale numbers would be low since they'd recently started." J.A. 5672 (536:23–24). He testified that the $X royalty rate in each of the three license agreements was accepted by the parties. J.A. 5671 (535:5–11) ("So, you know, if three companies were willing to accept it, then yeah. That further made it clear to me that it was a reasonable royalty rate that was being accepted by counterparties.").

Finally, in support of Mr. Kennedy's proposed $X royalty rate, EcoFactor introduced at trial an email chain between EcoFactor and Johnson concerning the $X royalty rate. J.A. 10797–99; J.A. 6278 (1142:3–10). In the chain, which was dated a few months before the parties signed the license agreement, the parties discuss the $X royalty rate. J.A. 10797–99. Johnson notes that "[w]e are applying the [$X rate] to the time period" identified by EcoFactor. J.A. 10798.

In light of the three license agreements, Mr. Habib's testimony, and the EcoFactor-Johnson email chain, we determine that Mr. Kennedy's damages opinion concerning the $X royalty rate was sufficiently tied to the facts of the case and thus admissible. *See Finjan, Inc.* v. *Secure Computing Corp.*, 626 F.3d 1197, 1212 (Fed. Cir. 2010); *C & F Packing Co., v. IBP, Inc.*, 224 F.3d 1296, 1304–05 (Fed. Cir. 2000). And based on this context, the "jury was entitled to hear the expert testimony" from Mr. Kennedy concerning the $X royalty rate and "decide for itself what to accept or reject." *Pavo Sols. LLC v. Kingston Tech. Co.,* 35 F.4th

1367, 1379 (Fed. Cir. 2022) (citation omitted). That is exactly what the jury did in this case. The jury heard Mr. Kennedy's testimony and Google's extensive cross-examination concerning Mr. Kennedy's understanding of the three license agreements, his reliance on Mr. Habib's testimony, and testimony concerning the emails between EcoFactor and Johnson about the $X royalty rate. J.A. 5793–5812 (657:4–676:2); J.A. 5794 (658:17–18); J.A. 5667 (531:8–25); J.A. 5668–5670 (532:3–534:3); J.A. 6278–6280 (1142:6–1144:19). Ultimately, the jury returned a verdict of $20,019,300, which represents significantly less than Mr. Kennedy's proposed damages amount of $Y that would have resulted from applying the $X royalty rate to Google's past sales.

Google argues that Mr. Kennedy's testimony is unreliable because there is no evidence that the parties to the three license agreements actually applied the $X royalty rate. To the contrary. First, the three admissible license agreements each disclose that EcoFactor believed that the lump sums in each license was "based on" the $X royalty rate. Additionally, in its whereas clause, the Schneider license agreement, unlike the Johnson and Daikin agreements, states that "nothing in this clause should be interpreted as agreement by Schneider that [$X] per unit is a reasonable royalty." J.A. 10400. This clause, *included by Schneider*, speaks to its belief that $X may *not have been reasonable* but it does not speak to whether $X was actually applied in arriving at the lump sum. Arguably, this provision, when read in context, could also mean that the $X royalty rate was applied by EcoFactor and Schneider. If Schneider did not believe that the $X royalty rate was actually being applied, it could have said such in the agreement. But Schneider did not. Finally, as noted above, Johnson noted in an email chain with EcoFactor that it was "applying" the $X royalty rate. How much weight should be given to the provisions in the license agreements, including whether they are "self-serving" as Google claims, and

the EcoFactor-Johnson email is a question for the jury. *See Pavo,* 35 F.4th at 1379; *Finjan*, 626 F.3d at 1212; *C & F Packing*, 224 F.3d at 1304.[6]

To conclude, we determine that Mr. Kennedy's opinion concerning the $X royalty rate was sufficiently reliable for admissibility purposes. For this reason, we hold that the district court did not abuse its discretion in denying Google's motion for a new trial on damages.

B.

Google argues that Mr. Kennedy's damages testimony should have also been excluded from trial for a lack of comparability and apportionment. Appellant Br. 34. Google does not dispute the technical comparability between the three licenses and Mr. Kennedy's hypothetically negotiated agreement. Nor could it. Mr. Kennedy relied on the testimony of EcoFactor's technical expert, Mr. De la Iglesia, for his opinion that the three license agreements were

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[6] The dissent relies on a statement in the body of the of the Schneider and Daikin license agreements to support its position that the parties *did not apply* the $X royalty rate contained in these two license agreements' whereas clauses. *See* Dissent 3–6. This statement provides that the agreed to lump sum "does not reflect or constitute a royalty." J.A. 10391; J.A. 10402. That the *lump sum amount* is not *a royalty* does not mean the parties did not use the $X royalty rate discussed in the agreements to arrive at the lump sum amount. But even if we were to set aside these two license agreements, the Johnson license agreement alone would suffice. As Google's own expert agreed at trial, "just one" license agreement can be sufficient to support a damages opinion. J.A. 6269 (1133:10–14). This assertion comports with our damages precedent, which does not demand "absolute precision" but may involve some degree of approximation and uncertainty. *Virnetx*, 767 F.3d at 1328.

technically comparable to the hypothetically negotiated license. J.A. 5578–5583 (442:22–447:2); J.A. 5763 (627:7–23); J.A. 5768 (632:7–19). Google's experts did not rebut Mr. De la Iglesia's opinion on this issue at trial. J.A. 6268–6270 (1132:4–1134:5).

Rather, Google challenges Mr. Kennedy's economic comparability analysis of the three licenses and the hypothetically negotiated agreement. Appellant Br. 36–37; Reply Br. 9. According to Google, the three license agreements were for EcoFactor's entire patent portfolio and Mr. Kennedy failed to account for the value of the '327 patent within that portfolio. Appellant Br. 36. We disagree.

Damages owed to the patentee must reflect the value of only the patented improvement—called apportionment. *Omega Pats., LLC v. CalAmp Corp.*, 13 F.4th 1361, 1376 (Fed. Cir. 2021). If a sufficiently comparable license is used for determining the appropriate reasonable royalty rate, further apportionment may not be required because the comparable license has built-in apportionment. *Id.* at 1377. "Built-in apportionment effectively assumes that the negotiators of a comparable license settled on a royalty rate and royalty base combination embodying the value of the asserted patent." *Id.* (citation omitted). "For built-in apportionment to apply, the license must be sufficiently comparable in that principles of apportionment were effectively baked into the purportedly comparable license." *Id.* (citation omitted). Part of this comparability analysis requires an expert to account "for differences in the technologies and economic circumstances of the contracting parties" to the past licenses and to the hypothetical negotiation at issue. *Finjan*, 626 F.3d at 1211–12.

The degree of comparability of license agreements is a "factual issue[] best addressed by cross examination and not by exclusion." *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1333 (Fed. Cir. 2012); *Bio-*

Rad Lab'ys, Inc. v. 10X Genomics Inc., 967 F.3d 1353, 1373 (Fed. Cir. 2020); *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1227 (Fed. Cir. 2014); *Finjan*, 626 F.3d at 1211. For example, in *Bio-Rad*, we concluded that there was no abuse of discretion in allowing an expert to testify about three licenses, even though one of the licenses was ultimately not proven to be technically comparable to the hypothetically negotiated license. 967 F.3d at 1374 (holding that the "'degree of comparability' was appropriately left for the jury to decide").

Here, Mr. Kennedy sufficiently showed, for purposes of admissibility, that the three license agreements were economically comparable to the hypothetically negotiated agreement. Mr. Kennedy acknowledged that, based on Mr. De la Iglesia's unrebutted testimony, the Schneider and Daikin licenses list seven technically comparable asserted patents, including the '327 patent at issue in the hypothetically negotiated agreement. *See* J.A. 10398; J.A. 10409. He also noted that the Johnson license did not list the '327 patent as an asserted patent but listed four others that covered the same interrelated smart thermostat technologies. J.A. 10411; J.A. 1276. Finally, Mr. Kennedy acknowledged that the three licenses also covered patents in EcoFactor's portfolio that were not asserted in the underlying litigation facing Johnson, Schneider, and Daikin. J.A. 10398; J.A. 10409; J.A. 10411; J.A. 1275–76.

Mr. Kennedy accounted for such differences. Mr. Kennedy testified that in arriving at the $X royalty rate in a hypothetical negotiation, Google would argue that the three license agreements included EcoFactor's portfolio, not just the '327 patent, and thus the $X royalty rate should be decreased. J.A. 5767 (631:19–23). Mr. Kennedy then provided that the three license agreements reflect a settlement and thus the $X royalty rate reflects a risk that that EcoFactor's patents would be found not infringed or invalid. J.A. 1276. According to Mr. Kennedy, this consideration would not be present at the hypothetical

negotiation between EcoFactor and Google, since the assumption is that the '327 patent was infringed and valid. J.A. 1276. As a result, this point would place upward pressure on the negotiated rate.

The three licenses aside, Mr. Kennedy separately grounded his apportionment opinion on underlying internal profit and survey data from Google. Mr. Kennedy testified that, based on underlying customer surveys from Google and based on EcoFactor's technical expert's testimony, the infringed technology at issue in this case attributed to Z%[7] of the profits for the infringed products. J.A. 5755–5758 (619:16–622:13); J.A. 5775–5777 (639:22–641:7). Based on this data, Mr. Kennedy calculated the amount of profit per unit that could be attributed to the '327 patent, which was more than double the $X royalty rate. J.A. 5755–5758 (619:16–622:13). According to Mr. Kennedy, this would also place upward pressure on the negotiated rate at the hypothetical negotiation. J.A. 5780 (644:6–7) ("And that's EcoFactor's response, saying it should actually be a lot higher."). Mr. Kennedy thus concluded that the $X royalty rate "would be a very reasonable and conservative first offer." J.A. 5779 (643: 17–18). This testimony is additional evidence for the jury to consider and weigh when calculating a damages award. *C & F Packing,* 224 F.3d at 1304; *ResQNet.com, Inc., v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010) ("At all times, the damages inquiry must concentrate on compensation for the economic harm caused by infringement of the claimed invention.").

Based on this evidence, we conclude that the district court did not abuse its discretion in declining to grant a new trial on damages. Mr. Kennedy's damages opinion

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[7] The percentage amount is confidential business information subject to a protective order, and as such, is not recited in this opinion.

relied on sufficiently comparable licenses and his opinion sufficiently apportioned the value of the '327 patent for the issue to be presented to the jury.

Supporting our conclusion is *ActiveVideo*. There, the damages expert relied on an agreement that included the patents at issue and other software services without any alleged attempt to "disaggregate the value of the patent license from the value of the services." 694 F.3d at 1333 (citation omitted). We held that there was no error in failing to exclude the expert's testimony because the degree of comparability and "any failure on the part of [the] expert to control for certain variables are factual issues best addressed by cross examination and not by exclusion." *Id.* Here, Mr. Kennedy went further than the *ActiveVideo* expert by sufficiently accounting for the economic differences between the patents in the three license agreements (asserted and non-asserted) and the hypothetically negotiated agreement. And like in *ActiveVideo*, if there were any failures to control for certain variables in comparability, these factual issues were for the jury to decide. *Id.*

Contrary to Google's position, our case law does not compel a contrary result. In *Omega*, we remanded for a new trial where the expert "merely *identified* . . . differences" between the patents in the licenses and the patents in the hypothetical negotiation and did not distinguish such facts. 13 F.4th at 1380–81. In *Apple*, two of the three license agreements relied on by the expert did not list the subject patent all, and the third license listed the subject patent as a non-asserted patent in a long list of "hundreds of Non-Asserted patents." *Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960, 973 (Fed. Cir. 2022). We determined that there was no record evidence supporting the expert's *assumption* that the subject patent was a "key patent" in these three licenses. *Id.*

Unlike in *Omega* and *Apple,* here we have two of the three licenses at issue explicitly listing the '327 patent as

an "asserted patent." J.A. 10398; J.A. 10409. Additionally, Mr. Kennedy addressed and distinguished the remaining patents discussed in the license agreements. He testified that at the hypothetical negotiation, Google would emphasize the downward pressure that these patents would have on the $X royalty rate. Mr. Kennedy then testified that EcoFactor would note upward pressure on the $X royalty rate by assuming that the '327 patent was valid and infringed. And, unlike in these cases, Mr. Kennedy separately rooted his apportionment analysis on underlying internal profit and survey data from Google. As previously noted, based on this data, Mr. Kennedy was able to determine that the $X royalty rate was a conservative amount attributable to the '327 patent.

Google loses sight of the issue on appeal and the applicable standard of review. Our focus is on the *admissibility* of Mr. Kennedy's damages testimony, and we assess the district court's determination of this issue under the highly deferential abuse of discretion standard. "Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts" are jury functions, not those of a trial judge, and certainly not of an appellate judge. *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000) (citation omitted). If the standard for admissibility is raised too high, then the trial judge no longer acts as a gatekeeper but assumes the role of the jury.

Based on the record before us, we conclude that the district court did not abuse its discretion when it denied Google's motion for a new trial. Google has not shown that the district court's decision to admit Mr. Kennedy's damages opinion resulted in prejudicial error or a substantial injustice requiring a new trial on damages.

CONCLUSION

We have considered Google's remaining arguments and find them unpersuasive. We reject Google's attempt to

appeal the district court's denial of summary judgment. We affirm the district court's post-trial denials of Google's motion for JMOL of non-infringement and Google's motion for a new trial on damages.

AFFIRMED

COSTS

No costs.

United States Court of Appeals for the Federal Circuit

ECOFACTOR, INC.,
Plaintiff-Appellee

v.

GOOGLE LLC,
Defendant-Appellant

2023-1101

Appeal from the United States District Court for the Western District of Texas in No. 6:20-cv-00075-ADA, Judge Alan D. Albright.

PROST, *Circuit Judge*, dissenting-in-part.

In recent years, our court has made some progress in clarifying important questions related to damages for patent infringement. Such clarifications relate to deriving a reasonable royalty from a lump-sum license and requiring the patentee to confine its damages to the value of the patented technology. Unfortunately, the majority opinion here at best muddles our precedent and at worst contradicts it. I therefore respectfully dissent from the decision

to affirm the district court's denial of Google's motion for a new trial.[1]

Google argues that (1) Mr. Kennedy, EcoFactor's damages expert, calculated an $X royalty rate[2] from the Schneider, Daikin, and Johnson lump-sum licenses in an unreliable way; and (2) the $X rate in any event did not reflect the value of the '327 patent (as distinct from that of other patents covered by those licenses). Google is right on both counts. The district court therefore, in my view, abused its discretion by not granting a new damages trial given Mr. Kennedy's flawed testimony.[3]

I

Mr. Kennedy's $X rate rests on EcoFactor's self-serving, unilateral "recitals" of its "beliefs" in the license agreements. These recitals are not only directly refuted by two of those same agreements; they also have no other support (e.g., sales data or other background testimony) to back them up. Our law does not allow damages to be so easily manufactured.

When deriving reasonable royalties from lump-sum licenses, we have emphasized that "lump sum payments . . . should not support running royalty rates without testimony explaining how they apply to the facts of the case."

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[1] I join the other aspects of the majority's decision.

[2] Because the specific per-unit royalty rate that Mr. Kennedy uses has been designated confidential, I use $X to refer to his rate.

[3] When reviewing a district court's exercise of discretion on a critical, often-complicated evidentiary decision such as a damages-expert *Daubert*, it usually helps to see the court's explanation for its decision. Here, at both the *Daubert* stage and in the context of Google's new-trial motion, the district court gave no explanation. J.A. 2254, 6687–89.

Whitserve, LLC v. Comput. Packages, Inc., 694 F.3d 10, 30 (Fed. Cir. 2012); *see also Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1330 (Fed. Cir. 2009) (requiring that "some basis for comparison must exist in the evidence presented to the jury"). We have vacated damages awards where the derivation of a reasonable royalty from a lump sum was "incompatible with the . . . agreement as a whole," *MLC Intell. Prop., LLC v. Micron Tech., Inc.*, 10 F.4th 1358, 1368 (Fed. Cir. 2021), where there was no testimony explaining how lump-sum "payments could be converted to a royalty rate," *Whitserve*, 694 F.3d at 30, and where "[n]either license describe[d] how the parties calculated each lump sum," *Wordtech Sys., Inc. v. Integrated Network Sols., Inc.*, 609 F.3d 1308, 1320 (Fed. Cir. 2010). Mr. Kennedy's $X rate repeats the same fatal errors we identified in *MLC*, *Whitserve*, and *Wordtech*. As in those cases, the licenses here are for a lump-sum amount with no record evidence supporting a calculation of a royalty rate.

Consider what these licenses do (and do not) say. Starting with the Schneider license, one preliminary recital states: "WHEREAS EcoFactor represents that it has agreed to the payment set forth in this Agreement based on *what* [*it*] *believes* is a reasonable royalty calculation of [$X] per-unit for what it has estimated is past and projected future sales of products accused of infringement in this Litigation." J.A. 10400 (emphasis added). Yet the body of the license (i.e., its substantive and agreed upon terms and conditions)—which, unlike the recitals, reflects the view of *both* parties—says that its lump-sum payment "*is not based upon sales and does not reflect or constitute a royalty*." J.A. 10402 (emphasis added).

The Daikin and Johnson licenses both contain nearly identical preliminary recitals about the $X rate. J.A. 10389; J.A. 10411. As in the Schneider license, the body of the Daikin license—which, again, reflects the view of *both* parties—says that its lump-sum payment "*is not based upon sales and does not reflect or constitute a*

royalty." J.A. 10391 (emphasis added). And while the Johnson license lacks a similar refutation of the recital's "belief" (a belief that, again, was EcoFactor's alone), it still offers nothing more than the recital itself to support any royalty rate.

These recitals became Mr. Kennedy's $X rate. J.A. 5764 (628:10–17); J.A. 5769 (633:9–18); J.A. 5772–73 (636:22–637:4). Mr. Kennedy also relied on the testimony of EcoFactor's CEO, Mr. Habib, as support for this rate. J.A. 5794 (658:17–18). But Mr. Habib's testimony does not establish anything beyond his unsupported "understanding" that these licenses used the $X royalty rate. *See* J.A. 5668–69 (532:23–533:2). When asked during direct examination about the basis for his "understanding," Mr. Habib testified that he was not allowed to see any underlying financial information or sales data. J.A. 5670 (534:4–14). Mr. Habib also explained his basis for believing that the $X rate was a reasonable rate based on his understanding of the market, J.A. 5672 (536:14–24), but his market-based testimony provided no explanation for converting from the lump-sum payments in these licenses to any royalty rate, let alone the $X royalty rate.[4]

On this record, it's impossible to establish that these lump-sum payments were calculated using any royalty rate, let alone the specific $X rate. The self-serving recitals reflect only EcoFactor's transparent attempt to

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[4] The only other basis Mr. Habib offers is that the $X royalty rate was EcoFactor's baseline policy for licensing, regardless of the number of patents. J.A. 5671 (535:12–24). Understandably, neither the majority nor EcoFactor rely on the baseline policy as a valid basis for Mr. Habib's understanding that the $X rate was used. *See Omega Pats., LLC v. CalAmp Corp.*, 13 F.4th 1361, 1379–80 (Fed. Cir. 2021) (concluding that a comparable license analysis using a baseline royalty rate policy is unreliable).

manufacture a royalty rate using its "belief." EcoFactor even had to refute its "belief" by agreeing, in the Schneider and Daikin licenses, that the lump-sum payment is *not* a royalty. Mr. Kennedy's assertion that the Schneider and Daikin licenses used the $X rate is "incompatible with the . . . agreement[s] as a whole." *MLC Intell. Prop.*, 10 F.4th at 1368. And the Johnson license does not "describe how the parties calculated [the] lump sum." *Wordtech Sys.*, 609 F.3d at 1320.

Mr. Kennedy cited nothing else showing that the $X rate was actually used. He cited no documents, records, sales data, or testimony showing any calculation of the lump-sum payments or otherwise establishing that these licenses used the $X rate. Mr. Habib's testimony, relying on no underlying data, likewise offers no support. EcoFactor offered no testimony explaining how the lump-sum "payments could be converted to a royalty rate." *Whitserve*, 694 F.3d at 30.

At bottom, all we have are the recitals of one party's "beliefs" contradicted by mutually agreed upon contractual language by both parties. That's not enough under our law.

None of the majority's responses on this issue withstand scrutiny. The majority first insists that the Schneider and Daikin licenses do not disclaim the $X royalty rate. It reasons, "[t]hat the *lump sum amount* is not *a royalty* does not mean [that] the parties did not use the $X royalty rate discussed in the agreements to arrive at the lump sum amount." Maj. 14 n.6 (emphasis in original). If the majority's point is that a lump sum is not *itself* a royalty, then fair enough—no one disputes that truism. The issue here, however, is whether the lump sum in these licenses *reflects* the application of the $X royalty rate (or, in the majority's words, whether it was used "to arrive at the lump sum amount"). And the majority cannot credibly claim that was the case when the licenses themselves say that each lump-sum payment "*is not based upon sales and does not reflect*

or constitute a royalty." J.A. 10391, 10402 (emphasis added). I'm not sure how these licenses could more clearly establish that the lump sums were not calculated using royalties.

The majority next asserts that "the Johnson license agreement alone would suffice." Maj. 14 n.6. But the Johnson license contains no language describing how its lump-sum payment was calculated, *see Wordtech Sys.*, 609 F.3d at 1320, and Mr. Kennedy offered no other basis from which he could conclude that the Johnson license used the $X rate.

The majority also cites an email chain that purportedly concerns the use of the $X rate in the Johnson license. But Mr. Kennedy never discussed this email; EcoFactor introduced this email during the cross-examination of *Google's expert*. J.A. 6278 (1142:3–10). The question here is not whether any document in the record supports the jury's damages award. We are instead asking whether Mr. Kennedy's testimony was so unreliable that it requires a new trial. I can't see how an email Mr. Kennedy never addressed supports the reliability of his analysis.

In the end, Mr. Kennedy conjured the $X rate from nothing, and the majority's treatment of his analysis cannot be squared with our law or the facts.

II

Even if these licenses used the $X rate, Mr. Kennedy's analysis has another significant problem: the $X rate does not reflect the '327 patent's value; rather, it includes the value of other patents. Our law is clear that this basic failure requires a new trial.

"When relying on comparable licenses to prove a reasonable royalty, we require a party to account for differences in the technologies and economic circumstances of the contracting parties." *Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960, 971 (Fed. Cir. 2022) (cleaned up). This

accounting, although not overly rigid and involving approximation, requires apportioning to just the value of patent(s) in the hypothetical negotiation. *Omega Pats., LLC v. CalAmp Corp.*, 13 F.4th 1361, 1380–81 (Fed. Cir. 2021). This apportionment must be tied to the facts of each case. *Id.* at 1379–80.

The licenses here have a broad scope. Each license is to "all patents and patent applications (along with patents issuing thereon) . . . that are now, or ever come to be, assigned to, owned by, or controlled by EcoFactor." J.A. 10390; J.A. 10401; J.A. 10412. Because each license reflects a settlement, they also list the patents asserted in each underlying litigation. The Schneider and Daikin licenses list seven asserted patents, including the '327 patent. J.A. 10398, 10409. The Johnson license lists four asserted patents; *none* are the '327 patent. J.A. 10411.

When calculating the '327 patent's value, Mr. Kennedy relied on EcoFactor's technical expert, Mr. de la Iglesia, who compared the asserted patents in each license to the '327 patent and concluded that the asserted patents and the '327 patent were technologically comparable. J.A. 5578–82 (442:14–446:10). But EcoFactor's technical expert didn't discuss the remaining patents in each license—the non-asserted patents in EcoFactor's portfolio.[5] Rather, Mr. Kennedy explained that since, "in the real world," "the rest of the patents are thrown in usually either for nothing or very little additional value," the presence of these non-asserted patents would place "downward pressure on the royalty rate" in a hypothetical negotiation over the '327

[5] Although we don't know the exact size of EcoFactor's portfolio, at least one document suggests that EcoFactor's portfolio is over three times larger than the seven asserted patents in the Schneider and Daikin licenses.

patent. J.A. 5767–68 (631:22–632:2); *see also* J.A. 5771–72 (635:19–636:3).

Mr. Kennedy's opinion is "untethered to the facts of this case." *Apple*, 25 F.4th at 973. His generic testimony about "the real world," general industry practice, and "downward pressure" does not account for the impact of EcoFactor's specific non-asserted patents, and we don't know whether any non-asserted patent in EcoFactor's portfolio covers the same technological areas as the asserted patents. Mr. Kennedy did not ask the necessary question under our law—what effect the *specific* non-asserted patents in EcoFactor's portfolio would have on the hypothetical negotiation.[6] Even worse, other evidence in the record indicates that the specific non-asserted patents were not considered *at all*. Mr. Habib testified that the remaining patents in EcoFactor's portfolio had no effect on the rate used in these licenses because the $X rate was EcoFactor's baseline policy. J.A. 5671 (535:12–24).

In the end, Mr. Kennedy's circumstance-agnostic analysis is insufficient under our law. *Apple*, 25 F.4th at 973 (vacating a verdict where the same expert as in this case, Mr. Kennedy, testified that excluding the non-asserted patents in a portfolio license would reduce the royalty rate by 25 percent as a matter of industry practice); *Omega Pats.*, 13 F.4th at 1379 (vacating a verdict where the proposed $5.00 royalty rate was the same for any number of patents); *MLC Intell. Prop.*, 10 F.4th at 1375 (vacating a verdict

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[6] It would not be difficult for EcoFactor to offer an answer. For example, Mr. de la Iglesia could have determined that the non-asserted patents in the Schneider, Daikin, and Johnson licenses have no technological overlap with the '327 patent and concluded that the non-asserted patents added only nominal value to the license.

where no evidence or explanation supported using the royalty rate in a forty-one-patent license for a single patent).

The majority, in excusing Mr. Kennedy's failure to properly apportion, ignores our law's requirements. It merely states that Mr. Kennedy "acknowledged that the three licenses also covered patents not in EcoFactor's portfolio." Maj. 16. But the majority ignores the key failure—Mr. Kennedy failed to account for the impact of the *specific* remaining patents in EcoFactor's portfolio, other than by referencing a generic "downward pressure." Neither Mr. Kennedy nor Mr. de la Iglesia tied this "downward pressure" to the specific non-asserted patents, and Mr. Habib affirmatively testified that EcoFactor's practice was to use the same $X rate *regardless* of the number of patents. In these circumstances, I "fail to see how this patent/claim-independent approach accounts for apportionment." *Omega Pats.*, 13 F.4th at 1379.

The majority also relies on *ActiveVideo Networks, Inc. v. Verizon Communications, Inc.*, 694 F.3d 1312 (Fed. Cir. 2012), for its conclusion. But in *ActiveVideo*, we concluded that "disagreements . . . with the conclusions reached by ActiveVideo's experts and the factual assumptions and considerations underlying those conclusions" were "factual issues best addressed by cross examination and not exclusion." *Id.* at 1333. Our conclusion presupposed that "the methodology is sound" and that "the evidence relied upon [is] sufficiently related to the case at hand." *i4i Ltd. P'Ship v. Microsoft Corp.*, 598 F.3d 831, 852 (Fed. Cir. 2010), *aff'd*, 564 U.S. 91 (2011). As I explained above, that's far from the case here. And to the extent the majority relies on one party's characterization in *ActiveVideo* of the expert's opinion as failing to "disaggregate the value of the patent license from the value of the services," Maj. 18, we did not adopt that characterization of the expert's opinion, *see ActiveVideo*, 694 F.3d at 1333. Additionally, any suggestion that disaggregating the value of the patented technology from the overall value of a license is not

required is flatly inconsistent with our law and 140 years of Supreme Court precedent. *See VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1326 (Fed. Cir. 2014) ("[A] patentee 'must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features.'" (quoting *Garretson v. Clark*, 111 U.S. 120, 121 (1884))).

To establish a purportedly independent basis for Mr. Kennedy's conclusion, the majority asserts that he demonstrated the reasonableness of his $X rate by analyzing Google's profits. Maj. 17. Mr. Kennedy determined what profits on Google's accused Nest thermostats came from features that he maintained were attributable to the '327 patent. He then split the profits between Google and EcoFactor, using the $X rate as a reasonable basis. *See* J.A. 5778 (642:13–17). His methodology isn't reasonable. Rather than offering a cross-check, Mr. Kennedy's circular profit analysis begins and ends with the same "fundamentally flawed premise"—the $X rate. *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1317 (Fed. Cir. 2011).

Ultimately, the majority's real concern is that, "[i]f the standard for admissibility is raised too high, then the trial judge no longer acts as the gatekeeper but assumes the role of the jury." Maj. 19. But we must pay close attention to the reliability of the methodology underlying expert testimony to ensure that the jury can fulfill its proper role as the factfinder. *See Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 142 (1997) (emphasizing the district court's "gatekeeper" role in "screening" expert testimony). As the Supreme Court has recognized, "the expert's testimony often will rest upon an experience confessedly foreign in kind to the jury's own." *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 149 (1999) (cleaned up). Thus, an "effort to assure that the specialized testimony is reliable and relevant can help the jury evaluate that foreign experience." *Id.* Our damages law ensures that an expert asks the right *questions*. Many

admissible *answers* to these questions are possible, and it is those answers that are subject to the crucible of cross-examination. Mr. Kennedy failed to ask the right questions at multiple junctures. The majority's decision to overlook the prejudicial impact of his unreliable testimony abdicates its responsibility as a gatekeeper and contradicts our precedent.

III

Mr. Kennedy's analysis is unreliable. His $X rate has no basis in the record, and his $X rate does not reflect the '327 patent's value alone but instead includes the value of other patents. Mr. Kennedy's testimony did not meet the baseline standards of admissibility, and therefore the district court abused its discretion by not granting a new trial on damages. The majority's conclusion otherwise departs from our law. I respectfully dissent.