United States Court of Appeals for the Federal Circuit

WI-LAN, INC.,
Plaintiff-Appellant

v.

APPLE INC.,
Defendant-Cross Appellant

2014-1437, -2014-1485

Appeals from the United States District Court for the Eastern District of Texas in Nos. 2:11-cv-00068-JRG, 2:12-cv-00600-JRG, Judge J. Rodney Gilstrap.

Decided: January 8, 2016

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Menlo Park, CA; ANDREW D. SILVERMAN, New York, NY; ASHLEE N. LIN, MIGUEL JESUS RUIZ, MARK C. SCARSI, Milbank, Tweed, Hadley & McCloy, LLP, Los Angeles, CA.

Before REYNA, WALLACH, and HUGHES, *Circuit Judges.*

REYNA, *Circuit Judge.*

Wi-LAN, Inc. ("Wi-LAN") is the assignee of U.S. Patent No. RE37,802 ("'802 patent"), which concerns a wireless data communication technique called "Multi-Code Direct-Sequence Spread Spectrum" (MC-DSSS). Wi-LAN asserts that the patented technique is embodied in several modern wireless communications standards.

On February 2, 2011, Wi-LAN sued Apple Inc. ("Apple") and other technology companies in the United States District Court for the Eastern District of Texas for infringing claims 1 and 10 of the '802 patent by manufacturing and selling products complying with various wide-area communication standards. A jury found that Apple did not infringe and that the claims are invalid. The district court denied Wi-LAN's motion for judgment as a matter of law ("JMOL") and for a new trial with respect to infringement, but it granted Wi-LAN's motion for JMOL of no invalidity.

Wi-LAN appeals the trial court's denial of JMOL and its motion for a new trial on infringement, and Apple cross-appeals the grant of JMOL of no invalidity. Because the jury's verdict of non-infringement was supported by substantial evidence, we *affirm* the district court's denial of JMOL as to non-infringement. Because the trial court's JMOL determination of no invalidity was based on a post-verdict reconstruction of the claims, we *reverse* the district court's grant of JMOL of no invalidity.

I. BACKGROUND

A. The Patented Technology

Wireless communication devices use radio waves to communicate digital data by modulating the frequency, amplitude, or phase of those waves according to pre-established patterns. Each pattern communicates a respective "symbol" corresponding to a given combination of bits. J.A. 3546. Devices that detect the radio waves can observe and interpret the modulation patterns to recover the transmitted symbols.

"Direct-Sequence Spread Spectrum" (DSSS) is a prior art modulation technique that prevents third parties from intercepting and interpreting radio communications. Using DSSS, a radio transmitter "spreads" a signal across a band of frequencies by multiplying the signal against a pseudo-random signal called "pseudo-noise." The pseudo-noise signal corresponds to a particular code, such that a receiver with a corresponding code can "invert" (i.e., reverse) the spreading to recover the original signal. A third party scanning the spectrum would detect only what appears to be natural ambient noise, while the intended recipient could use the corresponding code to detect and decode the communication. A drawback of DSSS is that each communication occupies an entire band of frequency, which makes it difficult for multiple users to transmit data simultaneously.

"Code Division Multiple Access" (CDMA) is another prior art modulation technique that addresses the bandwidth shortcomings of DSSS by allowing multiple users to transmit on the same band using different spreading codes. Under CDMA, the signals from the multiple users form a combined noise-like signal, and each receiver can use its respective code to recover the communications intended for it from the combined signal.

The ’802 patent discloses a “multi-code” variation of DSSS (MC-DSSS), which enhances throughput by permitting a single transmitter to utilize multiple codes simultaneously. ’802 patent col. 1 l. 66 – col. 2 l. 5. The specification describes two embodiments, corresponding to Figures 1 and 4 respectively.

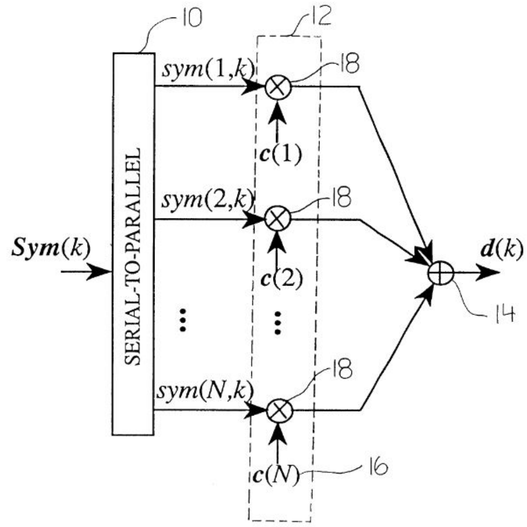

FIGURE 1

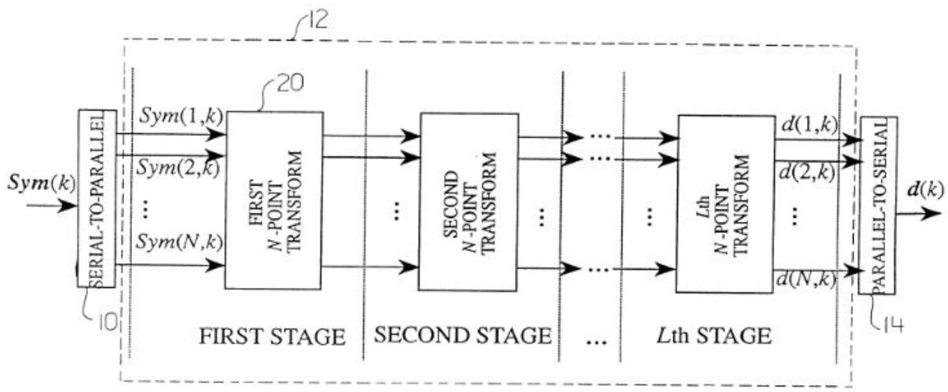

FIGURE 4

The embodiment of Figure 1 includes: (1) a converter 10 for converting a stream of data symbols into multiple sets of N data symbols each, (2) a computing means 12 that operates on the sets of data symbols to produce "modulated data symbols corresponding to an invertible randomized spreading of the stream of data symbols" and (3) a combiner 14 for combining the modulated data symbols for transmission. *Id.* Fig. 1, col. 4 ll. 1–7. The computing means modulates each data symbol using a respective DSSS code, which may be derived using a series of mathematical transforms, as shown in Figure 3. *Id.* col. 4 ll. 7–12, col. 4 ll. 29–34. The patent lists a dozen exemplary mathematical transforms, including the complex "randomizer transform" of Figure 8. *Id.* col. 4 l. 66 – col. 5 l. 12. In the alternative embodiment of Figure 4, the computing means modulates the N data symbols by applying the transforms directly to the N data symbols rather than indirectly via the DSSS codes. *Id.* col. 4 ll. 38–43.

Asserted claim 1 recites a transceiver for transmitting data using three components:

> 1. A transceiver for transmitting a first stream of data symbols, the transceiver comprising:
>
> a converter for converting the first stream of data symbols into plural sets of N data symbols each;
>
> first computing means for operating on the plural sets of N data symbols to produce modulated data symbols corresponding to an invertible randomized spreading of the first stream of data symbols; and
>
> means to combine the modulated data symbols for transmission.

The claimed transceiver includes a "converter" for converting a stream of data symbols into multiple sets of data symbols, where each set includes N symbols. Second, the transceiver includes a "computing means" for operating on the sets to produce "modulated data symbols corresponding to an invertible randomized spreading" of the original data symbols. Finally, the transceiver includes a "means to combine the modulated data symbols for transmission." Asserted claim 10, which depends on claim 1, adds means for receiving and decoding the data symbols.

B. Procedural History

The district court held a *Markman* hearing and issued two claim constructions relevant to this appeal. J.A. 18. First, the district court construed "modulated data symbols" to mean "data symbols that have been spread by a spreading code." J.A. 62. In doing so, the court rejected Apple's argument that the modulated data symbols must be randomized, explaining that "randomization is a desirable feature that is addressed by other claim language, such as the term 'invertible randomized spreading,' which appears in Claim 1 . . . ." *Id.* Second, the district court adopted the parties' agreed construction of "first computing means." The parties agreed that the limitation is a means-plus-function element subject to 35 U.S.C. § 112 ¶6, and that the corresponding structure is "element 12 of Figures 1 and 4, columns 2:6–10, 2:36–40, 2:58–62, 4:2–12, and 4:35–44, and equivalents thereof." J.A. 73. The agreed upon construction matched the construction of the same term issued by a different court in previous litigation between the parties. *WI-LAN, Inc. v. Acer, Inc.*, No. 2:07-CV-473-TJW, Dkt. No. 469 (E.D. Tex. May 11, 2010) ("*Acer*"). In that case, the court had rejected Wi-LAN's proposal to construe the "first computing means" as additionally encompassing the exemplary transforms disclosed at col. 4 l. 66 – col. 5 l. 12, including the complex randomizer of Figure 8, because the transforms related to how the pseudo-noise is generated rather than to any structure in the computing means. J.A. 1362, 1364. Wi-LAN agreed to the *Acer* construction of the "first computing means" in this case and did not seek a construction that explicitly included the additional structure.

At trial, Apple argued that it did not infringe because claim 1 requires randomizing the data symbols before combining them, and that Apple's products perform these steps in the reverse order (the "ordering requirement"). Claim 1 recites that the computing means must "produce modulated data symbols corresponding to an invertible randomized spreading" and that the converter must "combine *the* modulated data symbols." Apple argued that because "*the* modulated data symbols" refers back to the earlier-recited "modulated data symbols corresponding to an invertible randomized spreading," the data symbols to be combined must have already been randomized. J.A. 13. The parties agreed that Apple's products randomize the data symbols only *after* combining them.

Apple also argued that claims 1 and 10 are invalid because several prior art publications, including a 1989 paper by Sasaki,[1] anticipated the asserted claims. J.A. 10,334. The parties agreed that the prior art references taught randomizing the modulated data symbols using real multipliers (i.e., using a "real randomizer") rather than using complex multipliers (i.e., using a "complex randomizer").[2] J.A. 1059 at 194:21–25; J.A. 1058 at 190:21–191:4. Apple's invalidity arguments consequently rested on the proposition that "the Court's claim construc-

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[1] Shingenobu Sasaki & Gen Marubayashi, *A Study on the Code of Sequence for Parallel Spread-Spectrum Data Transmission*, Inst. of Electronics, Info., and Commc'n. Engineers (IEICE) Technical Report, Vol. 89, no. 265 (Oct. 1989).

[2] Complex multipliers are hardware structures that can multiply complex numbers, whereas real multipliers can multiply only real numbers.

tion told us what the first computing means is, and it didn't say complex randomizer." J.A. 1059 at 195:5–11.

The jury found claims 1 and 10 of the '802 patent invalid and not infringed. J.A. 362, 364. Wi-LAN moved for JMOL on both issues, and for a new trial on non-infringement. J.A. 1197. Wi-LAN argued that the court's claim constructions precluded the ordering requirement underlying Apple's non-infringement defense. J.A. 11-15. Wi-LAN also argued that the prior art did not anticipate the asserted claims because the prior art did not randomize using complex multipliers, which Wi-LAN argued the asserted claims require. J.A. 5.

The district court upheld the jury's finding of non-infringement, and reversed on invalidity. J.A. 16. Regarding non-infringement, the district court held that the ordering requirement was consistent with the court's claim constructions and that a reasonable jury could have found non-infringement under those constructions. J.A. 14. Regarding invalidity, the district court determined that, although its construction of computing means "does not specifically provide for a complex multiplier," a complex multiplier was nevertheless necessary because "expert witnesses from both sides agreed that complex multipliers *are part of* the structure of the 'first computing means' as taught by the '802 patent." J.A. 9–10. It was undisputed that such multipliers were absent from the prior art.

Wi-LAN appeals the denial of JMOL on non-infringement. Apple cross-appeals the grant of JMOL on no invalidity.

II. STANDARDS OF REVIEW

In reviewing a district court's rulings on motions for JMOL or for a new trial, we apply regional circuit law. *Seachange Int'l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1367–

68 (Fed. Cir. 2005). The district court here sits in the Fifth Circuit.

The Fifth Circuit "reviews a motion for judgment as a matter of law *de novo*, applying the same legal standard as did the trial court." *Ford v. Cimarron Ins. Co.*, 230 F.3d 828, 830 (5th Cir. 2000) (internal citations omitted). The Fifth Circuit "grants great deference to a jury's verdict and will reverse only if, when viewing the evidence in the light most favorable to the verdict, the evidence points so strongly and overwhelmingly in favor of one party that the court believes that reasonable jurors could not arrive at any contrary conclusion." *Dresser-Rand Co. v. Virtual Automation Inc.*, 361 F.3d 831, 838 (5th Cir. 2004). The Fifth Circuit "review[s] the district court's decision on a motion for a new trial for an abuse of discretion." *Hollybrook Cottonseed Processing, L.L.C. v. Am. Guarantee & Liab. Ins. Co.*, 772 F.3d 1031, 1034 (5th Cir. 2014). "The standard for the district court to grant a new trial is whether the verdict is against the great weight of the evidence." *Whitehead v. Food Max of Miss., Inc.*, 163 F.3d 265, 270 (5th Cir. 1998).

Anticipation and infringement (both literal and under the doctrine of equivalents) are questions of fact, which we review for substantial evidence when tried to a jury. *TI Grp. Auto. Sys. (N. Am.), Inc. v. VDO N. Am., L.L.C.*, 375 F.3d 1126, 1133 (Fed. Cir. 2004). Claim construction is a legal issue that may be based on underlying findings of fact. *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). We therefore review a court's constructions *de novo* and any underlying factual findings based on extrinsic evidence for clear error. *Id.*

III. DISCUSSION

A. Non-Infringement

On appeal, Wi-LAN challenges the district court's denial of JMOL on non-infringement on the grounds that the district court's claim constructions precluded the ordering requirement underlying Apple's non-infringement defense. Wi-LAN argues that the district court expressly rejected the ordering requirement at claim construction when it refused to construe "modulated data symbols" as necessarily randomized. J.A. 62. Wi-LAN argues that, even with the ordering requirement, Apple's products would still infringe under the doctrine of equivalents because it is undisputed that the different orderings produce mathematically identical results.

Claim construction begins with the words of the claim, which "must be read in view of the specification, of which they are a part." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–15 (Fed. Cir. 2005) (en banc); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Although courts are permitted to consider extrinsic evidence, like expert testimony, such evidence is generally of less significance than the intrinsic record. *Phillips*, 415 F.3d at 1317 (citing *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)). Extrinsic evidence may not be used "to contradict claim meaning that is unambiguous in light of the intrinsic evidence." *Id.* at 1324.

The text of the asserted claims requires randomizing the modulated data symbols before combining them. Claim 1 recites a computing means that "*produce[s]* modulated data symbols corresponding to an invertible randomized spreading" and a means to combine that "combine[s] *the* modulated data symbols." Subsequent use of the definite articles "the" or "said" in a claim refers back to the same term recited earlier in the claim. *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008). The term "*the* modulated data symbols" therefore refers back to the randomized data symbols produced by the computing means in the second claim element. Because the modulated data symbols in the second element are randomized upon being produced, those same modulated data symbols in the third element have already been randomized before they are combined. The text of the claim thus requires producing randomized symbols and then combining those randomized symbols.

The ordering requirement described above is consistent with the specification. Every embodiment discussed in the specification randomizes the data symbols before combining them. For instance, Figures 1 and 4 both show combining as the final step, after computing means 12 operates on (i.e., spreads and randomizes) the data symbols. No disclosure in the specification depicts or discusses the possibility of combining before randomizing. The intrinsic record is therefore clear that the asserted claims cover only structure that randomizes data symbols in parallel before combining them for transmission.

Contrary to Wi-LAN's argument, the district court did not explicitly reject the ordering requirement at claim construction. The district court rejected only Apple's argument that the *unmodified* term "modulated data symbols" must necessarily refer to randomized data symbols. J.A. 59–62. The district court did so only because the randomization requirement "is addressed by other claim language, such as the term 'invertible randomized spreading.'" J.A. 59–62. Even though generic "modulated data symbols" do not have to be randomized, the recited "modulated data symbols *corresponding to an invertible randomized spreading*" do have be randomized. Because "*the* modulated data symbols" refers back to these already-randomized symbols, the claims impose the disputed ordering requirement. As the district court reiterated in its JMOL order, nothing in its construction precludes the ordering requirement. J.A. 14.

Wi-LAN also argues that the ordering requirement is inconsistent with dependent claim 4, which Wi-LAN contends places the "means to combine" between the spreading and the randomizing steps. We disagree. Claim 4 recites:

> 4. The transceiver of claim 1 in which the first computing means comprises:
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> a transformer for operating on each set of data symbols to generate modulated data symbols as output, the modulated data symbols corresponding to spreading of each data symbol over a separate code selected from a set of more than one and up to M codes, where M is the number of chips per code; and
>
> means to combine the modulated data symbols for transmission.

Claim 4 thus recites that the first computing means includes both a transformer for spreading the symbols and a means to combine the symbols. This configuration does not preclude the recited transformer, or any other component of the first computing means, from also randomizing the data symbols before they are combined. Claim 4 is therefore consistent with an interpretation of claim 1 that requires a structure that randomizes the symbols before combining them.

In summary, the intrinsic record requires that the symbols be modulated according to an invertible randomized spreading before being combined for transmission. Because Apple's products do not randomize the symbols before combining them, the structure of those products is not identical to the disclosed structure, and Apple therefore does not infringe the asserted claims.

Wi-LAN argues that even if claim 1 requires a structure that randomizes before combining, structure that performs these steps in the reverse order nevertheless infringes under the doctrine of equivalents because the resulting output of the two orderings is mathematically identical.

We have recognized that the doctrine of equivalents may be applied to a means-plus-function limitation to afford that limitation a somewhat broader scope of equivalents than it would otherwise receive under § 112 ¶6. *Ring & Pinion Serv. Inc. v. ARB Corp.*, 743 F.3d 831, 835 (Fed. Cir. 2014). Because the record contains no indication that the doctrine of equivalents is inapplicable here and because Apple has not so argued, we analyze infringement under that doctrine.

Infringement under the doctrine of equivalents requires the patentee to prove that the accused device contains an equivalent for each limitation not literally satisfied. *Catalina Mktg.*, 289 F.3d at 812. An element in the accused product is equivalent to a claimed element if the differences between the two elements are "insubstantial" to one of ordinary skill in the art. *Warner–Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 40 (1997).

Substantial evidence supports the jury's verdict that the order difference between Apple's products and the claimed invention is not insubstantial.[3] Apple's expert, Dr. Acampora, testified that the processor in Apple's products is "not equivalent structure" to the recited "computing means." J.A. 1052 at 167:6–7. He explained that the two structures are "fundamentally different because the order [of randomizing and combining] is wrong." J.A. 1054 at 174:20–22. Dr. Acampora elaborat-

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[3] Though the verdict form did not include a separate question specific to the doctrine of equivalents, J.A. 361, the district court instructed the jury on that doctrine, J.A. 384–387, and the verdict is therefore one of no infringement, either literally or under the doctrine of equivalents.

ed that even though the different orderings produce mathematically equivalent results, they require structurally different hardware pipelines to implement:

> [T]he order in which these multiplications are done, the spreading and the randomization, does matter, because it – it affects the number of – the number of multipliers, the number of transistors that are needed on the circuitry. In one case, you need a lot more circuitry than you need in the second case. So that order really does matter. This is a design consideration. And the number of – the amount of circuitry that is needed is important, because these circuits, first of all, will take up space on the silicon, on the chip itself, and the more complicated and larger that chip becomes, in general, the more power-hungry it becomes. And in the cellular field, actually two things are very precious: Bandwidth spectrum and battery. So anything you do to reduce the power drain is useful, even if it's only a little bit.

J.A. 1034 at 93:22–94:13.

Wi-LAN counters that the structural differences Dr. Acampora described were insubstantial, and it points to Dr. Acampora's testimony that in a configuration such as that found in Apple's products, changing the order of operations would save as few as twenty transistors out of the millions found on the chip. J.A. 1053–54. Wi-LAN argues that such a slight modification is insubstantial and therefore cannot support a finding of non-equivalence.

Though Wi-LAN's argument has merit, we find it insufficient to disturb the jury's verdict on substantial evidence review. On cross-examination Dr. Acampora testified that one should not consider the magnitude of structural differences with respect to the entire chip, but only with respect to the portion of the chip used to perform the relevant functionality. J.A. 1054 at 173:10–14. He testified that because that portion of the chip contains only a few hundred transistors, a savings of "20 out of a few hundred transistors" is "a big deal in wireless communications." *Id.* Moreover, Dr. Acampora testified that, as parallelism increases, the differences in hardware requirements between the two designs could be orders of magnitude greater than the twenty transistors discussed in his cross-examination. J.A. 1033–34 at 91:19–93:11. It was therefore reasonable for the jury to credit Dr. Acampora's testimony and to conclude that a person of ordinary skill would have found the design differences not insubstantial.

For the foregoing reasons, the jury's verdict is neither unreasonable nor against the great weight of the evidence. The district court's denial of JMOL respecting non-infringement was therefore proper and its denial of a new trial on the issue was not an abuse of discretion. We affirm the district court's denials of both motions.

B. Invalidity

The district court vacated the jury's verdict of invalidity because a reasonable jury should have understood that the first computing means must randomize the symbols using *complex* multipliers while the prior art used only *real* multipliers. J.A. 5. While acknowledging that its construction "does not specifically provide for a complex multiplier," the district court nevertheless found such a component required because "throughout the trial, both sides took the position that the complex multiplier found in Figure 8 was necessarily included in the Court's construction." J.A. 8–9.

On appeal, Apple argues that the district court's post-verdict addition of a complex multiplier requirement was a new claim construction, which the district court may not issue at the JMOL stage. We agree.

"[I]t is too late at the JMOL stage to argue for or adopt a new and more detailed interpretation of the claim language and test the jury verdict by that new and more detailed interpretation." *Hewlett-Packard Co. v. Mustek Sys., Inc.*, 340 F.3d 1314, 1321 (Fed. Cir. 2003). At the JMOL stage, the question for the trial court is limited to whether substantial evidence supports the jury's verdict under the issued construction. *Id.*

Here, the jury was instructed that the "first computing means" is the structure corresponding to "elements 12 of Figures 1 and 4, columns 2:6–10, 2:36–40, 2:58–62, 4:2–12, 4:35–44, and equivalents thereof." J.A. 73. As the district court acknowledged, this construction "does not specifically provide for a complex multiplier." J.A. 9. In fact, nothing in the cited portions of the specification refers to Figure 8 or even mentions complex multipliers. J.A. 7. Instead, the portion of the specification dealing with Figure 8 and the other exemplary transforms (i.e., col. 4 l. 66 – col. 5 l. 12) is absent from the construction. This absence is particularly conspicuous given that in *Acer*, Wi-LAN had sought and failed to obtain a construction that included the omitted material, and that it subsequently consented to the omission in this case. When tested by the construction the court provided, it was reasonable for the jury to conclude that the "first computing means" need not include the complex multiplier of Figure 8.

Wi-LAN argues that the trial court's JMOL order was based, not on an impermissible reconstruction, but on a permissible clarification of the existing construction. Wi-LAN echoes the district court's conclusion that expert testimony from both sides established that the complex multiplier of Figure 8 was implicit within the construction. Wi-LAN notes that Apple's expert, Dr. Acampora, agreed that "the randomizer transform in Figure 8 is part of the transforms that are in Figure 4 and Figure 1 of the patent." Therefore, Wi-LAN argues, the district court's clarification at JMOL only made explicit what was already implicit in the original construction.

We have recognized that a trial court may "adjust constructions post-trial if the court merely elaborates on a meaning inherent in the previous construction." *Mformation Techs., Inc. v. Research in Motion Ltd.*, 764 F.3d 1392, 1397 (Fed. Cir. 2014). For example, in *Cordis Corp. v. Boston Scientific*, the district court construed the term "undulating" to mean "rising and falling in *waves*," but clarified in granting JMOL that the plural "*waves*" could not be met by a single "U" shape. 658 F.3d 1347, 1355–57 (Fed. Cir. 2011) (emphasis added). We held that clarification permissible because it only "made plain . . . what should have been obvious to the jury." *Id.* at 1356.

This is not a case, however, where the inclusion of an implicit component should have been obvious to the jury. Contrary to the district court's characterizations of the expert testimony, the parties clearly did not agree that the claims required complex randomization. Dr. Acampora made clear that "the Court's claim construction told us what the first computing means is, and it didn't say complex randomizer." J.A. 1059 at 195:9–11. Dr. Acampora's entire invalidity theory rested on the premise that the claims do not require complex randomization. He testified that, "Sasaki does not show complex randomizing, just randomizing." J.A. 1059 at 196:4–5; *see also* J.A. 1059 at 194:21–25 ("[Sasaki] does not use a complex randomizer."); J.A. 1058 at 190:21–191:4. Despite the absence of the complex randomizer, Dr. Acampora testified repeatedly that the Sasaki reference discloses the first computing means because it discloses invertible randomized spreading using *real* randomizers. J.A. 1037 at 106:19–21; J.A. 1037 at 107:10–12; J.A. 1038 at 111:11-13. The district court's characterization of Dr. Acampora's testimony as requiring a complex randomizer is clearly at odds with that witness's testimony. And even had Dr. Acampora opined that the invention's computing means required a complex multiplier, the jury was instructed that it was "not required to accept that opinion," and that "it is solely up to you to decide whether to rely upon that opinion or not." J.A. 373. Dr. Acampora's testimony did not require a reasonable jury to conclude that a complex multiplier was necessary.

In sum, the district court's JMOL of no invalidity was based on a reconstruction of the claims that went far beyond clarifying a meaning inherent in the construction or making plain what should have been obvious to the jury. Instead, the post-verdict reconstruction altered the scope of the original construction and undermined Apple's invalidity case post-verdict.

The only other argument Wi-LAN raised at JMOL respecting invalidity was that Apple's expert had failed to perform a structural comparison of the claimed structure and the prior art. J.A. 5, 1197. The district court rejected that argument, and Wi-LAN has not appealed that rejection. J.A. 7. Because the complex multiplier requirement was the only other basis on which the district court could have vacated the jury's invalidity verdict, and because we reject that basis here, we *reverse*.

IV. CONCLUSION

For the reasons stated above, we affirm the district court's denial of JMOL and of a new trial with respect to non-infringement, and we reverse the district court's grant of JMOL of no invalidity.

AFFIRMED-IN-PART AND REVERSED-IN-PART

COSTS

No costs.