IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

WI-LAN INC., *Plaintiff,* v. HTC CORP., et al., *Defendants.*	§ § § § § § § § §	CASE NO. 2:11-CV-68-JRG **LEAD CASE**
WI-LAN INC., *Plaintiff,* v. APPLE INC., et al., *Defendants.*	§ § § § § § § § §	CASE NO. 2:12-CV-600-JRG **Member Case**

MEMORANDUM OPINION AND ORDER

I. INTRODUCTION

Before the Court is Wi-LAN Inc.'s ("Wi-LAN") Motion for Judgment as a Matter of Law Under FRCP 50(b) or, in the Alternative, Motion for a New Trial Under FRCP 59 (Dkt. No. 635). In it, Wi-LAN moves the Court to overturn the jury's verdict and find the asserted patent to be valid and to find that Apple Inc. ("Apple") infringes both of the asserted claims as a matter of law.

Wi-LAN filed this patent infringement action against Apple Inc. ("Apple") on February 2, 2011, accusing the iPhone and iPad devices of infringing claims 1 and 10 of U.S. Patent No. RE37,802 ("the '802 patent") by using certain industry standards in the field of wireless

technology. The Court held a seven-day jury trial beginning on October 15, 2013. The jury returned a unanimous verdict on October 23, 2013 finding that Apple does not infringe and that claims 1 and 10 of the '802 patent are invalid. (*See* Jury Verdict, Dkt. No. 627.)

II. APPLICABLE LAW REGARDING RULE 50

Judgment as a matter of law is only appropriate when "a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue." Fed. R. Civ. P. 50(a). "The grant or denial of a motion for judgment as a matter of law is a procedural issue not unique to patent law, reviewed under the law of the regional circuit in which the appeal from the district court would usually lie." *Finisar Corp. v. DirectTV Group, Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008). The Fifth Circuit "uses the same standard to review the verdict that the district court used in first passing on the motion." *Hiltgen v. Sumrall*, 47 F.3d 695, 699 (5th Cir. 1995). Thus, a jury verdict must be upheld, and judgment as a matter of law may not be granted, unless "there is no legally sufficient evidentiary basis for a reasonable jury to find as the jury did." *Id.* at 700. The jury's verdict must be supported by "substantial evidence" in support of each element of the claims. *Am. Home Assurance Co. v. United Space Alliance*, 378 F.3d 482, 487 (5th Cir. 2004).

A court reviews all evidence in the record and must draw all reasonable inferences in favor of the nonmoving party; however, a court may not make credibility determinations or weigh the evidence, as those are solely functions of the jury. *See Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150-51 (2000). The moving party is entitled to judgment as a matter of law "only if the evidence points so strongly and so overwhelmingly in favor of the nonmoving party that no reasonable juror could return a contrary verdict." *Int'l Ins. Co. v. RSR Corp.*, 426 F.3d 281, 296 (5th Cir. 2005).

III. APPLICABLE LAW REGARDING RULE 59

Under Rule 59(a) of the Federal Rules of Civil Procedure, a new trial can be granted to any party to a jury trial on any or all issues "for any reason for which a new trial has heretofore been granted in an action at law in federal court." Fed. R. Civ. P. 59(a). "A new trial may be granted, for example, if the district court finds the verdict is against the weight of the evidence, the damages awarded are excessive, the trial was unfair, or prejudicial error was committed in its course." *Smith v. Transworld Drilling Co.*, 773 F.2d 610, 612-13 (5th Cir. 1985). The Court must view the evidence "in a light most favorable to the jury's verdict, and [] the verdict must be affirmed unless the evidence points so strongly and overwhelmingly in favor of one party that the court believes that reasonable persons could not arrive at a contrary conclusion." *Dawson v. Wal-Mart Stores, Inc.*, 978 F.2d 205, 208 (5th Cir. 1992).

IV. JUDGMENT OF INVALIDITY

Wi-LAN's motion for judgment as a matter of law of no invalidity focuses on a specific means-plus-function claim limitation present in claims 1 and 10 of the '802 patent. The element at issue is: "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."[1] Pursuant to the parties' agreement during the *Markman* hearing, the Court adopted the following function and corresponding structure.

Function: "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"	**Corresponding Structure:** "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"

[1] The parties both refer to both the means-plus-function limitations in the second element of claims 1 and 10 as "first computing means" in addressing this issue.

(*See* Claim Construction Order, Dkt. No. 302.)

In this motion, the parties dispute two distinct issues.

First, Wi-LAN generally contends that Apple presented insufficient evidence that the structure as construed by the Court exists in the prior art. Wi-LAN asserts that Apple's expert witness, Dr. Acampora, only performed half of the invalidity analysis in opining that this means-plus-function element was disclosed by the prior art because he only found the "invertible randomized spreading" function to be met, but omitted any discussion of a structural comparison. Wi-LAN argues that a purely functional analysis of a means-plus-function limitation is insufficient to establish invalidity as a matter of law. In response, Apple asserts that both a functional and structural comparison was conducted during trial. Apple identified two instances during Dr. Acampora's testimony where he demonstrated to the jury that the spread spectrum modulator structures (or its equivalents) were present in the Sasaki and Gilhousen prior art such that it satisfies the corresponding structure in the Court's claim construction.

Second, Wi-LAN asserts that a complex multiplier is a necessary part of the required structure of the "first computing means" element and any invalidity analysis is fatally incomplete if the prior art references do not disclose a complex multiplier. Apple disagrees, pointing out that the Court's construction does not specifically identify a complex multiplier as a corresponding structure. Therefore, this question turns on whether a complex multiplier is a necessary part of the structure corresponding to the "first computing means." If a complex multiplier is a required component, then the jury's invalidity verdict cannot survive because it is undisputed that no evidence was presented to the jury showing that a complex multiplier existed in the prior art.

i. Apple presented sufficient evidence of corresponding structure

The Court first evaluates whether Apple conducted a structural analysis of the means-plus-function element. In other words, whether Apple presented sufficient evidence that the prior art disclosed element 12 of Figures 1 and 4 or equivalents thereof—the corresponding structure as identified by the Court for the term "first computing means."

It is well-settled law that to prove anticipation of a means-plus-function limitation, a functional analysis alone will not suffice; the invalidity proponent must prove that the prior art discloses *both* the identical function and the particular corresponding structure that performs the function, or an equivalent thereof.[2] *Fresenius USA, Inc. v. Baxter Intern., Inc.*, 582 F.3d 1288, 1299 (Fed. Cir. 2009). "Just as a patentee who seeks to prove infringement must provide a structural analysis by demonstrating that the accused device has the identified corresponding structure or an equivalent structure, a challenger who seeks to demonstrate that a means-plus-function limitation was present in the prior art must prove that the corresponding structure—or an equivalent—was present in the prior art." *Id.* (citing *In re Donaldson Co.*, 16 F.3d 1339, 1361 (Fed. Cir. 1994)).

Apple points to three instances in the record where Dr. Acampora explained that the "spread spectrum modulators" structures performed the "first computing means" in the Sasaki and Gilhousen references. (10/21/2013 PM Tr. at 102:21-103:11, 106:23-107:3, 116:25-117:25). From a reading of the trial transcript, Dr. Acampora was not specifically asked to compare the "element 12 of Figures 1 and 4" structure to the Sasaki and Gilhousen prior art. However, the jury had the benefit of visual aids in the courtroom that was not captured by the written record. During his direct testimony on anticipation, Dr. Acampora referenced a slide presentation that clearly showed

[2] Apple only put forth an invalidity case based on anticipation.

element 12 of Figure 1 from the '802 patent (the corresponding structure) in a side-by-side comparison with images from both the Sasaki and Gilhousen prior art references. As a result, the record establishes that Dr. Acampora conducted both a functional and structural analysis of the means-plus-function element to find that the prior art reference is met.

In addition, a claim chart showing the Court's construction and a copy of the '802 patent was provided to each juror in their juror notebooks. The Court's charge specifically referred to those documents in instructing the jury on how to evaluate the means-plus-function claims:

> I will now instruct you about the meaning of the means-plus-function claim requirement. Remember that the Court's claim chart tells you the function that is performed and the structure disclosed in the '802 patent specification that corresponds to that function. To establish literal infringement of a claim that includes means-plus-function requirements, Wi-LAN must prove two things:
> 1. the relevant structure in the accused device performs the identical function I identified in the claim construction chart found in your juror notebook, and
> 2. the accused device employs a structure identical or equivalent to the structure described in the patent.

(10/23/2013 AM Tr. at 42:21-43:10). Therefore, between the use of the visual presentation during Dr. Acampora's testimony and the Court's final instructions to the jury, the Court finds that Apple presented sufficient evidence that "element 12 of Figures 1 and 4," the corresponding structure of the "first computing means," was disclosed by the prior art.

ii. Complex multiplier is a required structure of "first computing means"

The Court next evaluates whether a complex multiplier is a required structure for "first computing means" based on the Court's construction. Apple points out that the Court's construction does not explicitly identify a complex multiplier as a structure corresponding to the means-plus-function term. The complex multiplier was disclosed in Figure 8 of the '802 patent and the Court found the corresponding structure of "first computing means" to be "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." Figure 8 was not included. Nevertheless, Wi-LAN argues that throughout the trial, both sides took the position that the complex multiplier found in Figure 8 was necessarily included in the Court's construction. As support for this argument, Wi-LAN relies on the direct examination testimony of Apple's expert witness, Dr. Acampora.

> Q. Okay. How many multipliers would be in the patent?
>
> A. Okay. So in the patent, we would have -- each of these would need to be a complex multiplier to perform invertible randomized spreading. **This is one of the structures that the Court identified as being that which corresponds to the first computing means.**

(10/21/2013 PM Tr. at 91:8-14). Further, Dr. Acampora agreed that the complex multiplier in Figure 8 is a part of the transforms that are in Figures 4 and 1, the Court-identified corresponding structure for the "first computing means."

> Q. Along with the randomizer transform. **Those transform -- the randomizer transform in Figure 8 is part of the transforms that are in Figure 4 and Figure 1 of the patent, correct?**
>
> A. **That is correct.**
>
> Q. Okay. Now, randomizing transform is a complex randomizer, right?
>
> A. It is.
>
> Q. The one in Figure 8 of the patent is a -- well, we call it sometimes a complex multiplier, right?
>
> A. That's correct.
>
> ****
>
> Q. Sir, when you were up here and sketching out on these drawings, didn't you tell the jury -- I wrote it down. You said that the randomizer transform is part of the Figure 1 first computing means.
>
> A. Yes.

Q. And you said the randomizer transform is part of the Figure 4 first computing means.

A. Yes.

Q. And Sasaki does not use a randomizer transform of the type described in the '802 patent, Figure 8, does it?

A. That's correct.

Q. There's only one randomizer transform in the '802 patent that's described, correct?

A. There's only one described. It's Figure 8, which shows a bunch of complex multipliers.

(*Id.* at 139:12-22, 195:12-196:2). Dr. Acampora's opinion is also consistent with the testimony from Wi-LAN's expert witness, Dr. Orsak.

Q. And it's your opinion that the computing means of Claim 1 as described in Figure 1 requires Figures 3 and 8, correct?

A. Those codes are specifically from Figure 3. That is correct. And Figure 3 must produce codes that spread and randomize in this case, and the only transform that performs randomization provided by the inventors is the randomizer transform, which is, as we just talked about, in Figure 8.

(Cross-examination 10/16/2013 AM Tr. at 91:12-20; *see also* direct examination of Dr. Orsak, 10/15/2013 PM Tr. at 34:2-37:21 (sealed)). Consequently, although the Court's identification of the structure for "first computing means" does not specifically provide for a complex multiplier component, that does not mean a complex multiplier can never be a necessary component of the structure. Parties in patent cases often retain expert witnesses to explain and provide context to the claimed invention in a manner consistent with the Court's constructions. That is exactly what happened here. The record reveals the expert witnesses from both sides agreed that complex multipliers *are a part of* the structure of "first computing means" as taught by

the ’802 patent. Apple has not shown in its post-verdict briefing that its own expert’s trial testimony was inconsistent with the Court’s interpretation.

Each patent claim is presumed to be valid and as the party asserting invalidity, Apple was required to prove invalidity by clear and convincing evidence. 35 U.S. C. § 282; *Fresenius*, 582 F.3d at 1294-1295. Apple’s expert clearly testified that the complex multiplier shown in Figure 8 is a necessary part of the corresponding structure for “first computing means,” yet he failed to identify how this structure was disclosed by the prior art. As it is undisputed that no evidence was presented of complex multipliers in the prior art, Apple’s evidentiary burden of proof cannot be carried. The Court is unable to find that the jury’s finding as to invalidity of claims 1 and 10 of the ’802 patent is supported by substantial evidence. Accordingly, the jury’s invalidity verdict cannot stand.

V. JUDGMENT OF NON-INFRINGEMENT

Wi-LAN makes two arguments to show that it is entitled to a judgment of infringement as a matter of law. Both arguments are premised on Apple’s allegedly contradictory application of terms that have already been construed by the Court. Wi-LAN first contends that Apple improperly argued that “even” separation of the input “first data stream” is required at the output of the “converter” element in claims 1 and 10, which contradicts the Court’s construction of the term “converter.” Wi-LAN’s second argument relates to its non-infringement defenses for the “first computing means” and “means to combine.” Wi-LAN contends that Apple’s requirement that the “modulated data symbols” must be spread and randomized before being combined contradicts the Court’s claim construction, which does not specify such an order of operations.

i. Even separation

The first dispute centers on whether Apple properly applied the Court's claim construction to the "converter" element in setting forth its non-infringement position before the jury. The Court has construed the term "converting [the / a] first stream of data symbols into plural sets of N data symbols each" to mean "separating the first data stream into multiple groups of data symbols such that each group has N data symbols." In reaching this construction, the Court explained that it "reject[ed] Defendants' proposal that each group must be separated into N individual data symbols." (Dkt. No. 302 at 32.) From that statement, Wi-LAN contends the Court explicitly rejected Apple's "even separation" argument such that the groups of N input data symbols entering the converter need not be evenly separated into N individual data symbols at the output of the converter. However, Wi-LAN continues, Apple disregarded the Court's construction during trial by asserting that even separation was a necessary requirement to find infringement. According to Wi-LAN, Dr. Acampora (Apple's expert) inappropriately imported this additional limitation to the "converting…" term that required the number of streams coming out of the converter to equal the number of data symbols in each group.

In response, Apple contends that it never relied on an "equal data streams" limitations for its non-infringement position. Rather, Apple argues that Dr. Acampora's testimony made clear the reason the products do not meet the converting limitation is because they do not meet the "even separation" requirement. Apple maintains that the "even separation" requirement is consistent with the Court's construction because the *Markman* Order went on to explain that "the disputed term should be construed to clarify and explain that the stream of data symbols is separated into

multiple groups and that each group has N data symbols." (Dkt. No. 302 at 32.) The Court agrees with Apple.

The argument that each group must be separated into N individual data symbols was previously rejected by the Court. However, the Court did not reject the notion that the data must be evenly separated into multiple groups of N data symbols each. Therefore, the number of *groups* of N data symbols does not have to equal N, although each group must contain the *same N number* of data symbols. Dr. Acampora's testimony at trial was consistent with this construction.

During trial, Dr. Acampora testified that the three standards accused of infringement do not meet the converter limitation because they do not perform even separation. First, he explained the CDMA2000 standard has two channels, the fundamental channel and the supplemental channel. The CDMA2000 standard does not have the claimed converter because "these two channels have different numbers of data symbols." (10/21/2013 PM Tr. at 68:10-19.) Dr. Acampora next explained the EV-DO standard also does not do an equal split because "six symbols come in, two go to the top output, four go to the bottom output." (*Id.* at 73:3-20.) Dr. Acampora opines that the third accused standard, the HSUPA standard, similarly operates with an unequal split and does not use the claimed converter. (*Id.* at 75:2-76:13.) Wi-LAN has failed to persuade the Court that such testimony is inconsistent with the construction of the "converter" terms.

ii. Order of operations

The second dispute relates to Apple's non-infringement defenses for the elements "first computing means" and "means to combine" in asserted claims 1 and 10. Wi-LAN contends that Apple's defense was inappropriately premised on a specific order of operations such that the "means to combine" must combine "modulated data symbols" that have been both spread and

randomized before they are combined. The Court construed "modulated data symbols" to mean "data symbols that have been spread by a spreading code," which only requires spreading. (Dkt. No. 302 at 45.) Therefore, according to Wi-LAN, by importing a randomization requirement into the Court's construction, Apple is attempting to resurrect an argument that was explicitly rejected during claim construction.

Apple responds that it did not read a randomization requirement into the term "modulated data symbols" during trial. Instead, Apple contends that it relied on the antecedent basis of "*the* modulated data symbols" referenced in the "means to combine" limitation of claim 1. While not all modulated data symbols within the '802 patent need to be randomized, Apple argues that *the* modulated data symbols that are being combined in the "means to combine" limitation requires the randomization to occur. The Court agrees with Apple.

The entirety of claim 1 of the '802 patent reads as follows:

> 1. A transceiver for transmitting a first stream of data symbols, the transceiver comprising:
>   a. a converter for converting the first stream of data symbols into plural sets of N data symbols each;
>   b. 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
>   c. means to combine *the* **modulated data symbols** for transmission.

The term, "modulated data symbols," as construed, only requires spreading and does not require randomization because neither the specification nor the prosecution history contains any definitive statement or disclaimer mandating that "modulated data symbols" must be randomized. (Dkt. No. 302 at 44.) Therefore, any attempt by Apple to import a randomization requirement into this term would be improper. However, in the Markman opinion the Court also acknowledged that "randomization is a desirable feature that is addressed by other claim language, such as the term

'invertible randomized spreading,' which also appears in Claim 1." (*Id.* at 45.) The interrelatedness of the terms within claim 1 was the reason the Court concluded that randomization "should not be imported into the term 'modulated data symbols.'" (*Id.*) Accordingly, Dr. Acampora did not contradict the Court's claim construction in explaining that "*the* modulated data symbols" in the third element of claim 1 refers back to the "modulated data symbols corresponding to an invertible randomized spreading," introduced in the second element of claim 1. As a qualified technical expert, Dr. Acampora was entitled to give his opinion that from his study of the language in claim 1 and the Court's constructions of certain terms, those particular modulated data symbols must be spread and randomized before being combined.

Wi-LAN also contends that dependent claim 4 confirms that Apple's interpretation of ordering is incorrect. The Court is not persuaded by an argument on claim construction raised for the first time in post-trial briefing.

In summary, a reasonable jury could have found (and did find) non-infringement under the Court's claim constructions under either of the above non-infringement defenses. Wi-LAN put on infringement testimony from its expert, Dr. Orsak, and had ample opportunity to cross-examine Dr. Acampora on each of Apple's non-infringement positions. The jury heard both sides' interpretation of the claim language, considered the experts' competing testimony, and rendered a verdict of no infringement. As is apparent from the verdict, the jury had reason to believe Dr. Acampora's testimony and disbelieve the opinions of Dr. Orsak. This Court may not supplant the jury's assignment of credibility or weight attributed as between the experts, as those are sole functions of the jury. Indeed, Wi-LAN has made no claim that the evidence supporting non-infringement presented at trial was insufficient, only that Apple's interpretation of the terms

conflicts with the Court's construction. Having determined that there is no inconsistency, the Court concludes that Wi-LAN has failed to meet its burden of persuasion on this issue and there is no cause to overturn the jury's verdict of non-infringement.

VI. WI-LAN'S ALTERNATIVE REQUEST FOR A NEW TRIAL

Pursuant to Fed. R. Civ. P. 59, Wi-LAN moves for a new trial with respect to issues of invalidity, infringement, and jury confusion. All of Wi-LAN's arguments, with the exception of jury confusion, rely on the same arguments as addressed above. Based on the same reasoning as already discussed, the Court disagrees with each of Wi-LAN's infringement arguments and does not find the verdict to be against the weight of the evidence. However, the Court will address the jury confusion argument.

Wi-LAN contends that Apple confused the jury by arguing that the asserted claims only cover Wifi/LAN products rather than cellular products; therefore, the verdict is against the great weight of the evidence. For support, Wi-LAN cites two things: (1) witnesses being asked whether the patent uses the term "cellular"; and (2) portions of Apple's opening and closing statements asserting that the '802 patent is not a cell phone patent.

With respect to the first point, it is Wi-LAN's burden to prove by a preponderance of the evidence that the accused standards infringe the '802 patent. If Apple presented evidence Wi-LAN disputes or finds improper, such as asking witnesses whether the patent includes the term "cellular," then the burden shifts to Wi-LAN to make an objection and, if the objection is overruled, cross-examine the witnesses on the correctness or relevance of such testimony. Here, Wi-LAN did not object to these questions during the course of the trial and has therefore waived any objection on the issue. *SSL Servs., LLC v. Citrix Sys., Inc.*, 940 F. Supp. 2d 480, 492 (E.D. Tex.

Apr. 17, 2013) ("SSL has waived any objection it might have had to the testimony presented at trial because it failed to object to such testimony during the direct examination at trial."). Additionally, Wi-LAN had a full and fair opportunity to cross-examine Apple's witnesses and elicit re-direct testimony of its own witnesses during trial after these questions were asked. It is improper to fail to object during trial while allegedly objectionable testimony is being presented and then wait until post-verdict briefing to ask for a new trial on the same basis.

Regarding the second point, Apple's arguments in opening and closing statements that the '802 patent is not a cell phone patent, the Court has repeatedly instructed the jury that opening and closing arguments are not evidence. On at least three occasions, the Court explained to the jury that what the lawyers say, including their opening and closing statements, are not evidence in this case. (10/15/2013 AM Tr. at 104:2-9; 10/15/2013 PM Tr. at 36:12-16; 10/23/2013 AM Tr. at 26:10-15.) Absent any actual evidence of jury confusion, the Court finds the jury was not confused by Apple's witness questioning on the term "cellular" or the opening or closing statements. Similarly, the Court does not find the verdict to be so against the great weight of the evidence as to warrant a new trial.

VII. CONCLUSION

Based on the foregoing, the Court **GRANTS-IN-PART** Wi-LAN's motion for judgment as a matter of law and finds that claims 1 and 10 of the '802 patent are not invalid. In all other respects, Wi-LAN's motion is **DENIED**. Accordingly, the Court hereby **VACATES** the portion of the Judgment (Dkt. No. 628) that found claims 1 and 10 of the '802 patent to be invalid.

So ORDERED and SIGNED this 2nd day of April, 2014.

RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE