

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

TQ DELTA, LLC,

Plaintiff,

v.

ADTRAN, INC.,

Defendant.

Civil Action No. 14-954-RGA

ADTRAN, INC.,

Counterclaim Plaintiff,

v.

TQ DELTA, LLC,

Counterclaim Defendant.

MEMORANDUM OPINION

Brian E. Farnan, Michael J. Farnan, FARNAN, LLP, Wilmington, DE; Peter J. McAndrews, Rajendra A. Chiplunkar, Ashley M. Ratycz, MCANDREWS, HELD, & MALLOY, LTD., Chicago, IL,

Attorneys for Plaintiff.

Kenneth L. Dorsney, Cortlan S. Hitch, MORRIS JAMES LLP, Wilmington, DE; Paul M. Sykes, Benn C. Wilson, Jake M. Gipson, BRADLEY ARANT BOULT COMMINGS LLP, Birmingham, AL,

Attorneys for Defendant.

August 18, 2023


ANDREWS, U.S. DISTRICT JUDGE:

Before me are ten motions: Defendant Adtran's Motions for Summary Judgment of Non-Infringement of the Families 2, 3, and 7 Patents (D.I. 1410, 1411, 1412), Defendant's Motions for Summary Judgment of Invalidity of the Families 2 and 7 Patents (D.I. 1413, 1414), Defendant's *Daubert* Motions as to Certain Opinions of Dr. Elizabeth Rudnick and Dr. Todor Cooklev (D.I. 1415) and All Opinions of Dr. Arthur Brody (D.I. 1416), Plaintiff TQ Delta's Motion to Strike the First and Second Supplemental Expert Reports of Dr. George Zimmerman (D.I. 1420), Plaintiff's Motion for Summary Judgment of Infringement of the Asserted Claims of the Family 7 Patents (D.I. 1422), and Plaintiff's Motion for Summary Judgment of No Invalidity of the Family 2 Patents (D.I. 1424).

I have grouped the patents in this case into several families. Families 2, 3, and 7 are at issue at this stage. The asserted patents of Family 2 are U.S. Patent Nos. 7,453,881 and 8,422,511. The asserted patents of Family 3 are U.S. Patent Nos. 7,836,381, 7,844,882, and 8,276,048. The asserted patents of Family 7 are U.S. Patent Nos. 6,445,730, 7,978,753, and 8,437,382. (D.I. 1417 at 1-2). Members of each family share an identical specification with each other.

I have considered the parties' briefing (D.I. 1417, 1427, 1447, 1449, 1456, 1458). For the reasons set forth below, all motions but the one on the Family 3 patents are DENIED. The Family 3 motion is DISMISSED with leave to renew after additional briefing on claim construction for the Family 3 patents. Finally, I permit additional discovery as specified below.

I. LEGAL STANDARD

A. Summary Judgment

“The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” FED. R. CIV. P. 56(a). The moving party has the initial burden of proving the absence of a genuinely disputed material fact relative to the claims in question. *Celotex Corp. v. Catrett*, 477 U.S. 317, 330 (1986). Material facts are those “that could affect the outcome” of the proceeding. *Lamont v. New Jersey*, 637 F.3d 177, 181 (3d Cir. 2011) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986)). “[A] dispute about a material fact is ‘genuine’ if the evidence is sufficient to permit a reasonable jury to return a verdict for the nonmoving party.” *Id.* The burden on the moving party may be discharged by pointing out to the district court that there is an absence of evidence supporting the non-moving party’s case. *Celotex*, 477 U.S. at 323.

The burden then shifts to the non-movant to demonstrate the existence of a genuine issue for trial. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586–87 (1986); *Williams v. Borough of West Chester*, 891 F.2d 458, 460–61 (3d Cir. 1989). A non-moving party asserting that a fact is genuinely disputed must support such an assertion by: “(A) citing to particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations . . . , admissions, interrogatory answers, or other materials; or (B) showing that the materials cited [by the opposing party] do not establish the absence . . . of a genuine dispute” FED. R. CIV. P. 56(c)(1). The non-moving party’s evidence “must amount to more than a scintilla, but may amount to less (in the evaluation of the court) than a preponderance.” *Williams*, 891 F.2d at 460–61.

When determining whether a genuine issue of material fact exists, the court must view the evidence in the light most favorable to the non-moving party and draw all reasonable inferences in that party's favor. *Scott v. Harris*, 550 U.S. 372, 380 (2007); *Wishkin v. Potter*, 476 F.3d 180, 184 (3d Cir. 2007). If the non-moving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. *See Celotex Corp.*, 477 U.S. at 322.

B. *Daubert*

Federal Rule of Evidence 702 sets out the requirements for expert witness testimony and states:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. The Third Circuit has explained:

[T]he district court acts as a gatekeeper, preventing opinion testimony that does not meet the requirements of qualification, reliability and fit from reaching the jury. *See Daubert* ("Faced with a proffer of expert scientific testimony, then, the trial judge must determine at the outset, pursuant to Rule 104(a) [of the Federal Rules of Evidence] whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue.").

Schneider ex rel. Estate of Schneider v. Fried, 320 F.3d 396, 404–05 (3d Cir. 2003) (footnote and internal citations omitted).¹ Qualification examines the expert's specialized knowledge,

¹ The Court of Appeals wrote under an earlier version of Rule 702, but the subsequent amendments to it were not intended to make any substantive change.

reliability examines the grounds for the expert’s opinion, and fit examines whether the testimony is relevant and will “assist the trier of fact.” *Id.* at 404.

C. Motion to Strike for Failure to Comply with Scheduling Order

Under Federal Rule of Civil Procedure 37, the Court may issue sanctions including the exclusion of evidence for failure to comply with a scheduling order or failure to disclose information. “The determination of whether to exclude evidence is committed to the discretion of the Court.” *B. Braun Melsungen AG v. Terumo Med. Corp.*, 749 F. Supp. 2d 210, 221 (D. Del. 2010). The Third Circuit uses the “*Pennypack* factors” to determine whether to strike evidence:

(1) the importance of the information withheld; (2) the prejudice or surprise to the party against whom the evidence is offered; (3) the likelihood of disruption of the trial; (4) the possibility of curing the prejudice; (5) the explanation for the failure to disclose; and (6) the presence of bad faith or willfulness in not disclosing the evidence

Braun, 749 F. Supp. 2d at 221.

“[T]he exclusion of critical evidence is an ‘extreme’ sanction, not normally to be imposed absent a showing of willful deception or ‘flagrant disregard’ of a court order by the proponent of the evidence.” *In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 791–92 (3d Cir. 1994) (quoting *Meyers v. Pennypack Woods Home Ownership Ass’n*, 559 F.2d 894 (3d Cir. 1977)).

II. DISCUSSION

A. Motions for Summary Judgment

1. Family 2 Patents

Plaintiff moves for summary judgment that the Family 2 patents are not invalid as anticipated or obvious. Its argument is based in large part on a non-institution decision by the Patent Trial and Appeal Board (PTAB) that rejected the opinions of Dr. Zimmerman, who is also

an expert in this case. (*See generally* D.I. 1427 at 17-20).¹ Defendant was not a party to those proceedings. (D.I. 1447 at 15). The factual record of this case is different, as are some of the arguments Defendant is raising. (*Id.*) I find that there are still issues of material fact to be litigated. But even if the record were exactly the same, and Dr. Zimmerman's arguments exactly the same, a non-institution decision in a case not involving Defendant would not support granting summary judgment. At most, it might offer useful analysis, but by itself useful analysis would not resolve anything. Plaintiff's Motion for Summary Judgment of No Invalidity for the Family 2 Patents (D.I. 1424) is DENIED.

Defendant moves for summary judgment that the Accused Products do not infringe the Family 2 patents and that the patents are anticipated and lack written description. The experts on the Family 2 patents present genuine disputes of material fact as to whether the implementation of bonding features that Defendant is using infringes the patent, whether the prior art discloses every element of the claims, and what a POSA would have understood from the disclosures of the Family 2 patents. Therefore, Defendant's Motion for Summary Judgment of Non-Infringement of the Family 2 Patents (D.I. 1410) and Motion for Summary Judgment of Invalidity of the Family 2 Patents (D.I. 1413) are DENIED.

2. Family 3 Patents

Defendant moves for summary judgment that the Accused Products do not infringe the Family 3 patents. The asserted claims of the Family 3 patents are system and method claims that describe procedures for allocating memory and resources in telecommunications systems. In particular, the claims relate to allocating memory between an interleaver and deinterleaver by

¹ In reply, Plaintiff still relies upon the PTAB non-institution decision, just not as much as in its opening brief.

first setting aside memory to one component and then to the other. The preambles of the claims differ, but all of them require:

- transmitting or receiving, by the transceiver, a message during initialization specifying a maximum number of bytes of memory that are available to be allocated to a [de]interleaver;
- determining, at the transceiver, an amount of memory required by the [de]interleaver to [de]interleave a first plurality of Reed Solomon (RS) coded data bytes within a shared memory;
- allocating, in the transceiver, a first number of bytes of the shared memory to the [de]interleaver to [de]interleave a first plurality of Reed Solomon (RS) coded data bytes for [reception or transmission] at a first data rate, wherein the allocated memory for the [de]interleaver does not exceed the maximum number of bytes specified in the message;

(’381 patent at 11:15-12:4; ’882 patent at 12:21-32; ’048 patent at 10:43-54). The ’381 and ’882 patents allocate the first number of bytes to the deinterleaver, while the ’048 patent allocates them to the interleaver. In all three asserted claims, “a second number of bytes” is then allocated to the other component—the interleaver for the ’381 and ’882 patents or the deinterleaver for the ’048 patent. (’381 patent at 12:5; ’882 patent at 12:33; ’048 patent at 10:55). The claims then require that the interleaver and deinterleaver operate simultaneously using their respective sections of memory. (’381 patent at 12:9-15; ’882 patent at 12:37-43; ’048 patent at 59-65).

Plaintiff’s expert, Dr. Todor Cooklev, identifies a particular variable that serves as the “message . . . specifying a maximum number of bytes of memory that are available to be allocated.” (’381 patent at 11:15-18). The experts agree that the Accused Products allocate a number of bytes to the first component greater than this amount. (D.I. 1417 Ex. A ¶¶ 377-384; D.I. 1423 Ex. 12 ¶¶ 51, 53, 56-57). However, Dr. Cooklev asserts that the additional allocated memory is not “allocated . . . to the [de]interleaver to [de]interleave.” (*Id.* ¶ 55). Instead, he asserts that it is used for other purposes, including “buffering or queuing codewords” in preparation for deinterleaving or interleaving. (*Id.* ¶ 56). Dr. Cooklev notes that, although the

relevant component works through different sections of the reserved memory, it only ever uses the amount specified in the initial message to actively interleave or deinterleave. (*Id.* ¶ 55). He opines that this amount is therefore the amount allocated “to [de]interleave” under the patent. (*Id.* ¶ 54). Defendant’s expert, Dr. Richard Wesel, counts the entire memory set aside in the initial allocation operation toward the total used to interleave or deinterleave. (*See, e.g.*, D.I. 1417 Ex. A ¶ 609).

There does not appear to be any factual dispute here, and the meaning of the phrase “allocating . . . to the [de]interleaver to [de]interleave” is likely dispositive. The parties have not provided argument on the construction of this phrase in the briefing on this motion, though Defendant appears to have been aware that claim construction might be necessary. (*See* D.I. 1417 at 7). Consequently, I think it is necessary to construe the phrase “allocating . . . to the [de]interleaver to [de]interleave.” Therefore, Defendant’s Motion for Summary Judgment of Non-Infringement of the Family 3 Patents (D.I. 1411) is DISMISSED with leave to renew after claim construction takes place. The parties are ORDERED to meet and confer and to propose a schedule for briefing the construction of the term “allocating . . . to the [de]interleaver to [de]interleave” for the Family 3 patents.

3. Family 7 Patents

Plaintiff moves for summary judgment of infringement of the Family 7 patents. Defendant moves for summary judgment of non-infringement and invalidity for obviousness. But there are genuine disputes of material fact as to how the Accused Products’ L2 mode relates to the claims of the Family 7 patents and whether a POSA would have had a motivation to combine and reasonable expectation of success in combining the prior art. Therefore, Plaintiff’s Motion for Summary Judgment of Infringement of the Family 7 Patents (D.I. 1422), Defendant’s

Motion for Summary Judgment of Non-Infringement of the Family 7 Patents (D.I. 1412), and Defendant's Motion for Summary Judgment of Invalidity of the Family 7 Patents (D.I. 1414) are DENIED.

B. Defendant's *Daubert* Motions

1. Certain Opinions of Dr. Elizabeth Rudnick and Dr. Todor Cooklev²

Defendant argues that Dr. Elizabeth Rudnick's opinions on the Family 2 patents should be excluded because she lacks the qualifications to be an expert and her opinions are not based on reliable methods. In particular, Defendant objects that she constructed a procedure for bonding transceivers with Defendant's product—which would infringe—when she has no experience in “designing or provisioning DSL equipment” or “network design” and “has never worked for anyone in those fields.” (D.I. 1417 at 13). Defendant argues that she “cobbled” her procedure together, and thus it is not based on “reliable procedures” from the field. (*Id.* at 13-14).

Plaintiff argues that Dr. Rudnick's opinions do not require experience designing DSL equipment or networks. (D.I. 1449 at 8). Plaintiff asserts that her opinions are based on interpreting source code, which she is qualified to do. (*Id.* at 8-9). Plaintiff notes that disagreeing with Dr. Rudnick's conclusions is “not a basis to strike an expert's opinion.” (*Id.* at 9 (quoting *Inline Connection Corp. v. AOL Time Warner Inc.*, 472 F. Supp. 2d 604, 613 (D. Del. 2007))).

I agree with Plaintiff. The opinions Dr. Rudnick formed based on her source code analysis are supported by her background in electrical engineering and computer science. The Defendant may certainly cross-examine Dr. Rudnick on her qualifications and the basis for her

² Defendant only challenges Dr. Cooklev's reliance on Dr. Rudnick's opinions. (D.I. 1417 at 13). Thus, resolution of the challenge to Dr. Rudnick's opinions resolves the challenge to Dr. Cooklev's opinions.

opinions, but I will not exclude her opinions. Defendant's *Daubert* Motion as to Certain Opinions of Dr. Elizabeth Rudnick and Dr. Todor Cooklev (D.I. 1415) is DENIED.

2. All Opinions of Dr. Arthur Brody

Defendant objects that Dr. Arthur Brody, Plaintiff's expert on the Family 7 patents, is not a POSA under either party's definition. Under Defendant's definition, a POSA would have had "a bachelor's degree in Electrical or Computer Engineering (or a related field, such as Computer Science) and 5-6 years of experience (in relevant technology), or a Master's degree in Electrical Engineering, etc., and 2-3 years of relevant experience." (D.I. 1430 Ex. A ¶ 43). Under Plaintiff's definition, a POSA would have had "(i) a Bachelor's degree in Electrical and/or Computer Engineering, or equivalent training, and (ii) approximately two to three years of experience working in digital communications. Lack of work experience can be remedied by additional education, and vice versa." (D.I. 1421 Ex. 9 ¶ 12).

Defendant argues that Dr. Brody has an undergraduate degree in Physics, which is not equivalent to Electrical or Computer Engineering, and that his industry experience has largely been in managerial roles. (D.I. 1458 at 7).

Plaintiff responds that Dr. Brody is a POSA under its definition, since any lack of education is remedied by his industry experience. (D.I. 1449 at 18). Plaintiff notes that Dr. Brody "has over 35 years of experience" compared to the small number of years required by either party's definition. (*Id.*).

I recognize that Dr. Brody does not qualify as a POSA under Defendant's definition, but he certainly meets his own definition. Which definition is more appropriate for the Family 7 patents is a factual question for the jury to decide. Defendant is, of course, free to cross-examine Dr. Brody on his background, as well as to argue that its definition of a POSA is the more

appropriate one. It is not for me to decide these issues, however, and I will not exclude Dr. Brody's testimony. Defendant's *Daubert* Motion as to All Opinions of Dr. Arthur Brody (D.I. 1416) is DENIED.

C. Plaintiff's Motion to Strike

Defendant's Family 2 expert, Dr. George Zimmerman, submitted two supplemental expert reports after the date for service of rebuttal expert reports. (D.I. 1427 at 4-5). The first was submitted on June 10, 2022. (D.I. 1399). Dr. Zimmerman was deposed on June 16 (D.I. 1427 at 5), and Plaintiff's expert Dr. Rudnick was deposed with respect to Family 2 on June 21 (D.I. 1401). Expert discovery ended on June 29, 2022. (D.I. 1403). The second supplemental report was submitted two weeks later. (D.I. 1407).

Plaintiff argues that Defendant belatedly changed its non-infringement contentions with regard to Family 2 and submitted its untimely supplemental reports to support its change. (D.I. 1427 at 4). Plaintiff asks that I strike these untimely supplemental reports pursuant to Federal Rules of Civil Procedure 16(f)(1)(C), 37(b), and 37(c). (*Id.* at 2-3). Plaintiff argues that the Third Circuit's *Pennypack* factors support the exclusion of the report. Plaintiff notes that it is prejudiced and was unable to cure that prejudice. (*Id.* at 10-11). Plaintiff also notes that it has not been allowed to conduct an additional deposition of Dr. Zimmerman or of the person who performed the testing for him, Mr. Chip Gusler. (*Id.* at 11). Plaintiff also argues that "additional discovery and further exchange of expert reports" would delay the trial schedule. (*Id.* at 11-12). Plaintiff contends that Defendant was plainly willful, and that the late addition of Defendant's new theory indicates that the new theory is not important to the case. (*Id.* at 12).

Defendant responds that it was Plaintiff who first violated the scheduling order by changing its infringement theories, and that Defendant's extra reports were appropriate given

what Plaintiff did. (D.I. 1447 at 2-3). In particular, Defendant argues that its first supplemental report was submitted in response to new three new infringement theories raised by Dr. Rudnick's reply report, and its second supplemental report was in response to a fourth new infringement theory raised at Dr. Rudnick's deposition. (*Id.* at 47). Defendant also argues that Plaintiff did not object when Defendant served its first supplemental report, even though Dr. Zimmerman's deposition had yet to take place. (*Id.* at 6). Defendant asserts that based on Plaintiff's conduct, it understood that Plaintiff did not object to the supplemental reports. (*Id.* at 10). Defendant notes that Dr. Zimmerman's reports are important because they respond to opinions by Dr. Rudnick. (*Id.*).

Plaintiff's reply conclusorily says it is "not true" that Dr. Rudnick offered four new theories. (D.I. 1456 at 3-4).

It is rather opaque to me whether either party changed its theories or simply added additional detail. I think there would be some prejudice to Plaintiff from the report that took place after Dr. Rudnick's and Dr. Zimmerman's depositions, but I also think any prejudice is curable by additional depositions. Trial has not yet been scheduled in this case. Thus, there is no disruption to any schedule that would be caused by conducting additional discovery. Therefore, I will allow Plaintiff to depose Dr. Zimmerman and Mr. Gusler as to the contents of the Supplemental Reports. Plaintiff states that it would need to be able to file "additional expert reports" in order to avoid prejudice. (D.I. 1427 at 11). Plaintiff has the burden of proof on infringement, so it should also be able to have the last word. Thus, if Plaintiff wishes to file responsive reports, it shall do so within three weeks from the date of this memorandum opinion. Thereafter, the parties shall arrange for the prompt depositions of Dr. Zimmerman and Mr. Gusler and the authors of any further responsive reports. Plaintiff's motion to strike is DENIED.

III. CONCLUSION

An appropriate order will issue.