

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CRADLEPOINT, INC., HONEYWELL INTERNATIONAL, INC.,
SIERRA WIRELESS, INC., and
THALES DIS AIS DEUTSCHLAND GMBH,
Petitioner,

v.

SISVEL S.P.A.,
Patent Owner.

IPR2021-00580
Patent 7,869,396 B2

Before MIRIAM L. QUINN, MONICA S. ULLAGADDI, and
AARON W. MOORE, *Administrative Patent Judges*.

ULLAGADDI, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision on Remand
Determining No Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. BACKGROUND

Cradlepoint, Inc., Honeywell International, Inc., Sierra Wireless, Inc., and Thales DIS AIS Deutschland GmbH¹ (collectively, “Petitioner”), filed a Petition (Paper 8, “Petition” or “Pet.”) requesting an *inter partes* review of claims 1–10 (“the challenged claims”) of U.S. Patent No. 7,869,396 B2 (Ex. 1001, “the ’396 patent”) pursuant to 35 U.S.C. §§ 311–319. Upon conclusion of trial, in the Final Written Decision (Paper 49, “FWD”), the majority determined that Petitioner established by a preponderance of the evidence that claims 1, 2, and 6–8 of the ’396 patent are unpatentable, but did not establish by a preponderance of the evidence that claims 3–5, 9, and 10 are unpatentable. FWD 43.

Both parties appealed to the United States Court of Appeals for the Federal Circuit, which (1) vacated the Board’s holding that claims 1, 2, and 6–8 are unpatentable as anticipated by and obvious in view of Sachs; and (2) did not reach Petitioner’s arguments regarding the patentability of dependent claims 3–5, 9, and 10. *See Sierra Wireless, ULC v. Sisvel S.p.A.*, 130 F.4th 1019, 1024 (Fed. Cir. 2025).

We have jurisdiction under 35 U.S.C. § 6, and we issue this Final Written Decision on Remand under 35 U.S.C. § 318(a) and 37 C.F.R.

¹ Petitioner originally included ZTE Corporation and ZTE (USA) Inc. (collectively, “ZTE”), Dell, Inc. (“Dell”), and TCL Communication Technology Holdings Limited, TCT Mobile International Limited, TCT Mobile, Inc., TCT Mobile (US) Inc., TCT Mobile (US) Holdings Inc. (collectively, “TCL/TCT”). ZTE, Dell, and TCL/TCT entered into settlement agreements with Patent Owner. *See* Papers 13, 30, 58. As such, we terminated the proceeding as to ZTE, Dell, and TCL/TCT, and reconstituted Petitioner as the remaining entities absent ZTE, Dell, and TCL/TCT. *Id.*; *see* Papers 15, 33, 59.

§ 42.73. For the reasons below, based on the complete record, we conclude that Petitioner has not proven, by a preponderance of the evidence, the unpatentability of any of claims 1–10 of the '396 patent.

A. Procedural History

Petitioner filed a Petition seeking *inter partes* review of challenged claims 1–10. Paper 8 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 12. We instituted trial as to all challenged claims. Paper 16. During trial, Patent Owner filed a Response (Paper 29, “PO Resp.”), Petitioner filed a Reply (Paper 40, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 42, “PO Sur-reply”). Petitioner relied on the supporting Declarations of Dr. Apostolos K. Kakaes (Ex. 1002) and Mr. Craig Bishop (Ex. 1007). Patent Owner relied on the supporting Declaration of Mr. Regis J. Bates, Jr. (Ex. 2001). An oral hearing in this proceeding was held on June 15, 2022, and a copy of the transcript of that hearing was entered into the record. Paper 48.

In the Final Written Decision, we determined that “limitations 1[c] and 1[d] cannot both occur in response to the same set of stimuli.”² FWD 16. We determined, accordingly, that “[i]n order for Petitioner to prevail, it need only show one of these mutually-exclusive claim limitations to satisfy the claim, as it contends.” *Id.* We also determined that Petitioner had sufficiently shown that Sachs anticipates independent claim 1 because “Petitioner shows *two different ways* by which claim 1 is met—. . . limitations 1[a], 1[b], and

² Limitation 1[c] recites “stopping the timer when the at least one data block is received from the transmitter while the timer is running, in order to prevent a triggering of a status report before the timer expires.” Limitation 1[d] recites “transmitting the status report to the transmitter after the timer expires, wherein the status report comprises a positive acknowledgement indicating receipt of at least one received data block.”

1[c] are performed in Figure 5 of Sachs,” and “[u]nder an alternative theory, limitations 1[a], 1[b], and 1[d] are performed in Figure 4 of Sachs.” *Id.* at 19 (emphasis added). For similar reasons, we determined that Petitioner had also sufficiently established unpatentability of claim 1 as obvious over Sachs by a preponderance of the evidence. *Id.* at 19–20. We reached an analogous conclusion with respect to independent claim 8, which recites a receiver that performs substantially the same method steps recited in independent claim 1, for reasons similar to those set forth for independent claim 1. *Id.* at 20.

As for the dependent claims, we determined that Petitioner had shown that claims 2, 6, and 7 are unpatentable as anticipated by and obvious over Sachs, but had not shown that claims 3–5, 9, and 10 are anticipated by or obvious over Sachs. *Id.* at 20–34. As for the challenges applying Wei, we found that Petitioner had not sufficiently shown that claims 1–5 and 7 are anticipated by or obvious over Wei, and also had not shown that claims 6 and 8–10 are unpatentable as obvious over Wei and 3GPP TS 25.322. *Id.* at 34–42.

After issuance of the Final Written Decision, Petitioner filed a notice of appeal (*see* Papers 50, 51, 52, 53) and Patent Owner filed a notice of cross-appeal (*see* Paper 54). Specifically, Petitioner appealed the Board’s determination that Petitioner had not shown, by a preponderance of the evidence, that challenged claims 3–5 and 9, and 10 of the ’396 patent are unpatentable. *See, e.g., Sierra Wireless*, 130 F.4th at 1022. Patent Owner cross-appealed the determinations in the Final Written Decision that claims 1, 2, and 6–8 of the ’396 patent had been shown unpatentable. *Id.*

In its Decision, the Federal Circuit rejected the interpretation that limitations 1[c] and 1[d] are mutually exclusive, and held that “the plain and

unambiguous language of claim 1 requires that a method, to come within the claim, must perform both limitations 1[c] and 1[d] *where their preconditions apply.*” *Sierra Wireless*, 130 F.4th at 1022 (emphasis added). The Federal Circuit also found the Board’s finding that Sachs’s Figure 5 discloses limitation 1[c] was unsupported by substantial evidence. *Id.* at 1023. The Federal Circuit determined that “[t]he Sachs reference and evidence from both parties indicate that the T_reorder timer of Sachs Figure 5 is stopped when reordering is finished, *rather than when missing PDUs are received.*” *Id.* at 1024 (emphasis added).

Although the Federal Circuit did not reach Petitioner’s arguments concerning dependent claims 3–5, 9, and 10, it agreed with Petitioner that “the Board abused its discretion by relying on the testimony of [Patent Owner] Sisvel’s expert Mr. Bates, absent a finding that he is qualified as an ordinarily skilled artisan.” *Id.* The Federal Circuit vacated and remanded to the Board for further proceedings consistent with its Decision. *Id.* at 9.

With authorization, Petitioner filed an opening brief on remand (Paper 67, “Pet. Remand Br.”), Patent Owner filed a response (Paper 68, “PO Remand Resp.”), and Petitioner filed a reply (Paper 69, “Pet. Remand Reply”).

B. Real Parties-in-Interest

Petitioner identifies the real parties-in-interest as Cradlepoint, Inc., Honeywell International, Inc., Sierra Wireless, ULC, Telit Cinterion Deutschland GmbH, Sierra Wireless America, Inc., and Telit Cinterion USA LLC. Paper 66, 1–2. Patent Owner identifies itself as the real party-in-interest. Paper 10, 1.

C. The '396 Patent

The '396 patent relates “to a data transmission method and a data retransmission method which can reduce loss in data transmission.” Ex. 1001, 1:17–20. Techniques for reducing data loss include the Automatic Repeat Request (ARQ) method, which “is performed by a high-level layer.” *Id.* at 1:58–60. Another technique is the HARQ (Hybrid ARQ) method, which is performed by lower-level layers and “correct[s] an error of data by the use of the FEC [forward error correction] and to retransmit the data by the use of the ARQ.” *Id.* at 1:60–64.

Figure 12, reproduced below, is a diagram illustrating an exemplary data transmission method. Ex. 1001, 14:34–36.

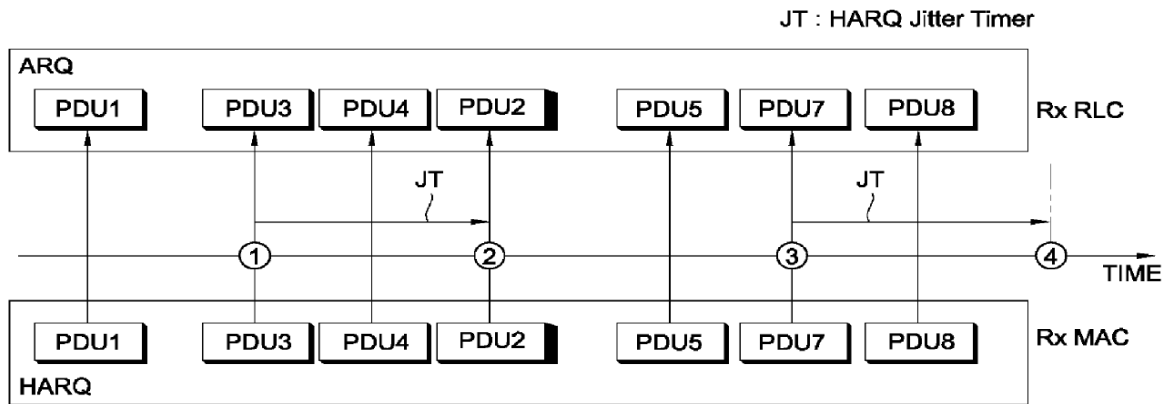


Figure 12 depicts that “the ARQ entity, that is, the RLC [radio link control] entity, receives PDU3 from the HARQ as a lower-level layer, that is, the MAC layer.” *Id.* at 14:38–40. Because PDU3 is received before PDU2, “the receiver checks that the gap is generated due to the inversion of transport order of the HARQ by the use of the HARQ jitter timer JT.” *Id.* at 14:40–44. The RLC entity receives PDU2 before the HARQ jitter timer expires, and so the timer stops. *Id.* at 45–46. The ARQ entity also receives PDU7 out of order, and similarly starts the HARQ jitter timer. *Id.* at 14:47–49. But, the RLC entity does not receive PDU6 before the timer expires, so “[t]he

receiver judges that the reception of PDU6 fails and transmits the status report information.” *Id.* at 14:50–54. Upon receiving status report information that the receiver did not receive a certain PDU, the transmitter retransmits the PDU. *Id.* at 14:55–57. “The status report information may be information on a data block received or not received by the RLC entity of the receiver.” *Id.* at 9:23–25.

D. Related Matters

As required by 37 C.F.R. § 42.8(b)(2), the parties identify judicial matters that would affect, or be affected by, a decision in this proceeding. In particular, the parties inform us that the ’396 patent was or is asserted in the following district court cases:

No. 3:20-cv-01289 (N.D. Texas);
No. 1:20-cv-00649 (D. Del.);
No. 1:20-cv-00651 (D. Del.);
No. 1:20-cv-00652 (D. Del.);
No. 1:20-cv-00653 (D. Del.);
No. 1:20-cv-00654 (D. Del.);
No. 1:20-cv-00655 (D. Del.);
No. 1:20-cv-00656 (D. Del.);
No. 1:20-cv-00658 (D. Del.);
No. 1:20-cv-00659 (D. Del.);
No. 1:20-cv-22050 (S.D. Fla.);
No. 1:20-cv-22051 (S.D. Fla.); and
No. 1:20-cv-22054 (S.D. Fla.).

Pet. 2–3; Paper 10, 1.

Subsequent to remand from the Federal Circuit, Petitioner indicates that “[t]here are no changes to the related matters.” Paper 66, 2; *see also* Paper 63, 2.

E. Illustrative Claim

In its Petition, Petitioner challenged claims 1–10 of the ’396 patent. Pet. 1. Claims 1 and 8 are independent. Claim 1 is illustrative and reproduced below.

1. [pre] A method of performing automatic repeat request (ARQ) in a wireless communication system, the method performed by a receiver and comprising:
 - 1[a] detecting whether at least one data block to be received from a transmitter is missed;
 - 1[b] starting a timer when the at least one data block is detected as missed;
 - 1[c] stopping the timer when the at least one data block is received from the transmitter while the timer is running, in order to prevent a triggering of a status report before the timer expires; and
 - 1[d] transmitting the status report to the transmitter after the timer expires, wherein the status report comprises a positive acknowledgement indicating receipt of at least one received data block.

Ex. 1001, 16:39–53.

F. Asserted Grounds

Petitioner presented the following challenges as summarized in the chart below. Pet. 9.

Ground	Claim(s) Challenged	35 U.S.C. §	Reference/Basis
1	1–10	102 ³	Sachs ⁴
2	1–10	103(a)	Sachs
3	1–5, 7	102	Wei ⁵
4	1–5, 7	103(a)	Wei
5	6, 8–10	103(a)	Wei, 3GPP TS 25.322 ⁶

II. ANALYSIS

A. Legal Standards

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros., Inc. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art;

³ The Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011) (“AIA”), included revisions to 35 U.S.C. §§ 102 and 103 that became effective after the effective filing date of the challenged claims. Therefore, we apply the pre-AIA versions of 35 U.S.C. §§ 102 and 103(a).

⁴ WO 02/091659 A2, published Nov. 14, 2002 (Ex. 1003, “Sachs”).

⁵ US 6,987,780 B2, issued Jan. 17, 2006 (Ex. 1004, “Wei”).

⁶ 3rd Generation Partnership Project (3GPP) Technical Specification (TS) 25.322 V5.9.0 (2004-12), “3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Radio Link Control (RLC) protocol specification (Release 5)” (Ex. 1005, “3GPP TS 25.322”).

(3) the level of ordinary skill in the art; and (4) when in evidence, objective evidence of nonobviousness.⁷ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)). The burden of persuasion never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)) (discussing the burden of proof in an *inter partes* review). Furthermore, Petitioner cannot satisfy its burden of proving obviousness by employing “mere conclusory statements.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

Thus, to prevail in an *inter partes* review, Petitioner must explain how the prior art discloses the challenged claims or how the proposed combinations of prior art would have rendered the challenged claims unpatentable. We analyze the challenges presented in the Petition in accordance with the above-stated principles.

B. Level Of Ordinary Skill in The Art

Petitioner contended that:

A POSITA [Person of Ordinary Skill in the Art] at or about the time of the alleged invention (January 5, 2006) would have had a degree in electrical engineering or a similar discipline, with at

⁷ Patent Owner did not present objective evidence of nonobviousness.

least three years of relevant industry or research experience, including experience designing or implementing wireless radio systems for data transmission and retransmission.

Pet. 35 (citing Ex. 1002 ¶¶ 40–53).

Patent Owner contended that a person having ordinary skill at the time of invention—January 5, 2006—in the relevant art would be one a bachelor’s degree in electrical engineering, computer sciences, or telecommunications, along with three to five or more years of practical experience in the field. A combination of more experience in the field and less education or more education and less experience in the field would also suffice.

PO Resp. 9 (citing Ex. 2001 ¶ 27). According to Patent Owner, “[a]lthough Patent Owner’s proposed level of skill in the art is similar to Petitioners’ proposal, Patent Owner includes the qualification that a combination of more experience in the field and less education, or more education and less experience in the field would also suffice.” *Id.*

In the Final Written Decision, we noted that “[t]he parties’ contentions as to the level of ordinary skill in the art are similar, and there does not appear to be a dispute that needs to be resolved.” FWD 8. We adopted Petitioner’s definition, but we noted that “[t]he findings and conclusions rendered in this [Final Written] Decision would not change had we adopted Patent Owner’s definition.” *Id.*

In its Decision, the Federal Circuit determined that “[w]hether Mr. Bates’ experience suffices to meet the requirements for a person of skill in the art is a question of fact that we will not decide in the first instance, and we thus vacate for Board consideration of this issue.” *Sierra Wireless*, 130 F.4th at 1025.

On remand, Petitioner argues that “Mr. Bates’ experience does not cover for his lack of education.” Pet. Remand Br. 4. Patent Owner disagrees and argues, *inter alia*, that “Mr. Bates was a pioneer in the cellular telecommunications field with more than five decades of practical and teaching experience.” PO Remand Resp. 5 (citing Ex. 2001 ¶¶ 8–23) (emphasis omitted); *see id.* at 3–4, 6.

Whether Mr. Bates is a Person of Ordinary Skill in the Art

In the Final Written Decision, we adopted Petitioner’s definition because “there does not appear to be a dispute that needs to be resolved.” FWD 8. Here, where Mr. Bates’ qualifications are challenged, we have reviewed the complete record including the parties’ arguments on remand and we find that Mr. Bates does not meet the requirements for a person of ordinary skill in the art according to Petitioner’s definition for level of ordinary skill in the art, which we adopted (*see* FWD 8). Notably, the panel adopted Petitioner’s definition of the level of ordinary skill in the Institution Decision (Paper 16, 8), and neither party challenged that determination during the trial, although Patent Owner did offer its own definition (PO Resp. 9). Mr. Bates has one degree: “a bachelor’s degree in Business Management.” Ex. 2001 ¶ 7. A degree in Business Management is not “a degree in electrical engineering *or a similar discipline*.” Pet. 35 (emphasis added). Accordingly, we disregard the testimony of Mr. Bates in rendering our findings and conclusions in this Decision. We note that, even if we did consider Mr. Bates’s testimony, the findings and conclusions rendered in this Decision would not change.

C. Claim Construction

The Federal Circuit determined that “the plain and unambiguous language of claim 1 requires that a method, to come within the claim, must perform both limitations 1[c] and 1[d] where their preconditions apply.” *Sierra Wireless*, 130 F.4th at 1022. We interpret the claims and analyze Petitioner’s unpatentability arguments under the Federal Circuit’s determination.

D. Challenges 1 and 2—Anticipation by Sachs and Obviousness over Sachs Alone

Petitioner contends that each of the challenged claims is unpatentable under 35 U.S.C. § 102 as anticipated by Sachs and unpatentable under 35 U.S.C. § 103(a) as obvious in view of Sachs. Pet. 35–63.

Petitioner does not separate its anticipation and obviousness analyses. *See* Pet. 36–63; Pet. Remand Br. 12–20. As Petitioner argues anticipation and obviousness together, we address the anticipation challenge first.

For the reasons that follow, we are not persuaded that Petitioner establishes unpatentability of claims 1–10, by a preponderance of the evidence, with respect to either its anticipation or its obviousness challenge applying Sachs.

1. Overview of Sachs

Sachs relates to “a method for performing a data transmission between a sending entity and a receiving entity,” where data is in the form of data packets, and where the receiver “delays a triggering of a reordering procedure for providing the sequence order” when a data packet is received out of order. Ex. 1003, code (57). Sachs describes that “[t]he basic idea of the present invention is to delay all mechanisms on the link layer, which exploit in-sequence reception by a certain time, which allows receiving all

re-ordered packets and putting them back in the sent sequence.” *Id.* at 12:11–14. Figure 4, reproduced below, shows an embodiment that applies a timer T_{reorder} . *Id.* at 12:2–3.

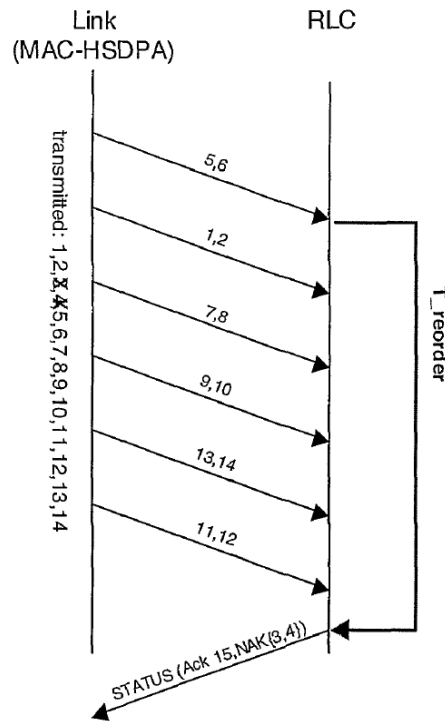


Figure 4

Figure 4 depicts an embodiment where “ T_{reorder} is introduced in order to delay the reaction of the RLC receiver in sending a STATUS report, which triggers also the retransmissions.” *Id.* at 12:25–28. In Figure 4, the reorder-delay timer is started when PDUs 5 and 6 are received out of sequence. *Id.* at 13:2–6. In an acknowledged mode (AM), a STATUS report is placed in a buffer when a PDU is received out of order, and retransmission is delayed. *Id.* at 13:19–25. The STATUS report is updated when PDUs are received to fill the gaps in the sequence of PDUs. *Id.* at 13:25–27. When T_{reorder} expires, the STATUS report is removed from the buffer and transmitted. *Id.* at 13:30–31.

Figure 5, reproduced below, shows an embodiment where a reordering delay is stopped “when all outstanding PDUs are received and the sent sequence is re-established.” *Id.* at 14:1–5.

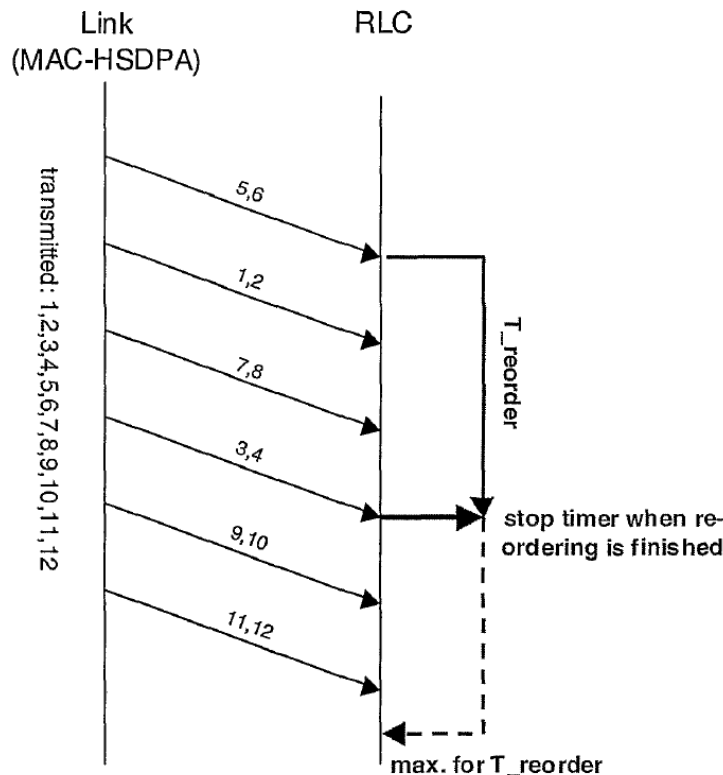


Figure 5

Figure 5 is similar to Figure 4 in that PDUs 5 and 6 are received out of order, except it shows that PDUs 3 and 4 are in fact received. *Id.* at 14:6–8. In this case, “the sequence 1, 2, 3, 4, 5, 6, 7, 8 is re-established and therefore the T_reorder timer is stopped.” *Id.* at 14:10–12.

2. The Parties’ Arguments on Remand

In its Petition, Petitioner proposed to construe limitations 1[c] and 1[d] as mutually exclusive. *See* Pet. 40, n.11 (“limitations 1[c] and 1[d] cannot both be performed”). In its Patent Owner Response, Patent Owner disagreed. *See* PO Resp.14–15. Petitioner maintained its position that it needed “only demonstrate one of the mutually exclusive limitations, 1[c] *or*

1[d], in the prior art,” yet Petitioner also argued that the Petition “nonetheless presents prior art that discloses *both* mutually-exclusive limitations in single references.” Pet. Reply. 5. We agreed with Petitioner’s claim construction in our Final Written Decision. FWD 16–17.

Petitioner relied on Figures 4 and 5 of Sachs as disclosing limitations 1[c] and 1[d] of claim 1. Pet. 36–44; Pet. Reply 3–12; Pet. Remand Reply 3–5. More particularly, Petitioner relied on Figure 5 of Sachs as disclosing limitations 1[a], 1[b], and 1[c], and Figure 4 as disclosing limitations 1[a], 1[b], and 1[d]. *See* Pet. 36–44. Petitioner did not rely on Figures 6 or 7 as disclosing limitations 1[b], 1[c], or 1[d]. *See, e.g.*, Pet. Reply 14 (“Petitioner only relies on Figure 6 [of Sachs] to demonstrate teachings for ‘detecting whether at least one data block to be received from a transmitter is missed’” (i.e., limitation 1[a])). Petitioner relied on Figure 7 of Sachs only for its challenge to dependent claims 5 and 10. *See* Pet. 57–61; Pet. Remand Br. 15 (citing Pet. 59–61; Ex. 1002 ¶ 227).

As set forth above, the Federal Circuit determined that “[t]he Sachs reference and evidence from both parties indicate that the T_reorder timer of Sachs Figure 5 is stopped when reordering is finished, *rather than when missing PDUs are received*,” with regard to limitation 1[c]. *Sierra Wireless*, 130 F.4th at 1024 (emphasis added). Accordingly, the Federal Circuit vacated the Board’s finding that Figure 5 of Sachs discloses limitation 1[c]. Importantly, the Federal Circuit also vacated our determination that limitations 1[c] and 1[d] are mutually exclusive. *Id.* at 5.

In its arguments on remand, Petitioner contends that “Sachs repeatedly discloses the concept of stopping a timer in response to a missing PDU throughout, not just in Figure 5.” Pet. Remand Br. 15. Petitioner argues

that “[w]hen considered for its full disclosure, including but not limited to Figures 4–7, Sach[s] at least renders obvious limitations 1[c]/8[c] and 1[d]/8d[d], as well as all of the other limitations of claims 1–10.” *Id.* at 19–20. According to Petitioner, “[f]or example, Sachs expressly discloses that ‘the timer is stopped before the timer expiry when at the reception of a data packet the sequence is established.’” *Id.* at 15 (quoting Ex. 1003, 9:34–10:4). Petitioner further argues that Sachs’s “Figure 7 actually shows elements of both limitations 1[c]/8[d] and 1[d]/8[d], both stopping the timer when certain out of order PDU(s) (PDU 3 and PDU 2) are received, but also having the timer expire, triggering the response, when a PDU (PDU 11) is not received in time.” *Id.* at 16 (reproducing an annotated version of Figure 7).

Patent Owner urges that “the Board should ignore all new arguments based on Sachs’s Figures 6 or 7, or combinations of Sachs’s ‘Figures 4–7’ in connection with claims 1 and 8.” PO Remand Resp. 9.

Petitioner was on notice, when Patent Owner’s Response was filed *at the latest*, that claim 1 could be construed as unconditionally requiring both limitations 1[c] and 1[d]. Indeed, Petitioner contended that it had shown both limitations “in single references.” Pet. Reply 5. Petitioner now seeks to shift its unpatentability contentions for limitation 1[c] from Figure 5 of Sachs to Figures 6 and 7. Petitioner’s new reliance on Figures 6 and 7 of Sachs is “a meaningfully distinct contention” from its position in both the Petition and the Reply. *See Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1367 (Fed. Cir. 2015). We therefore find that Petitioner impermissibly presents new theories of unpatentability on remand.

3. *Independent Claim 1*

We decline to address Petitioner’s new theories of unpatentability proposed on remand concerning Sachs’s Figure 7. *See* Pet. Remand Br. 15–20. Although Petitioner cites pages 59–61 of the Petition as discussing Figure 7 of Sachs (*see* Pet. Remand Br. 15), the cited discussion concerns dependent claims 5 and 10, *not* independent claims 1 and 8.

In the Petition, Petitioner relies on Figure 5 of Sachs and passages from Sachs describing the Figure 5 embodiment with respect to limitation 1[c], and the Federal Circuit has held that Figure 5 of Sachs does not teach limitation 1[c]. Pet. 40–42. Specifically, the Federal Circuit determined that Sachs was insufficient because “[t]he Sachs reference and evidence from both parties indicate that the T_reorder timer of Sachs Figure 5 is stopped when reordering is finished, rather than when missing PDUs are received.” *Sierra Wireless*, 130 F.4th at 1024. Petitioner does not establish that Sachs discloses stopping the timer when the missing PDU is received, as opposed to when the subsequent reordering is finished.

We are also not persuaded by Petitioner’s contention that “[e]ven if Sachs did not disclose this limitation, this limitation would have been obvious to a POSITA in view of Sachs.” Pet. 42 (citing Ex. 1002 ¶¶ 169–177). The only evidence supporting Petitioner’s obviousness position is Dr. Kakaes’s testimony as follows:

Even if Sachs was found to somehow be lacking in its disclosure, it would have been obvious to a POSITA in view of Sachs’[s] teachings to stop the timer when the at least one data block is received from the transmitter while the timer is running, in order to prevent a triggering of a status report before the timer expires. Ex. 1002 ¶ 177. We give that testimony little to no weight because it is conclusory and contradicted by the Federal Circuit’s determination that

Sachs’s timer is stopped when reordering is finished. 37 C.F.R. § 42.65 (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”). Petitioner neither cites any evidence, nor presents any argument, suggesting modification of Sachs to stop the timer when outstanding PDUs are received immediately upon receipt of the missing block, as opposed to after that block is received and reordering is completed.

In view of the above, Petitioner does not sufficiently carry its burden—*in the Petition*—to show unpatentability of independent claim 1 as anticipated or obvious in view of Sachs by a preponderance of the evidence.⁸

4. *Independent Claim 8*

Independent claim 8 recites a receiver that performs substantially the same method recited in independent claim 1. Petitioner presents substantially the same argument and evidence for the receiver of claim 8 as it does for the method of claim 1. *See* Pet. 45–48; Pet. Remand Br. 7–20. Petitioner also cites portions of Sachs that describe how each limitation is performed in an “RLC receiver.” *See* Pet. 45–48; Pet. Remand Br. 7–20. For reasons the same reasons set forth for independent claim 1, we determine

⁸ Petitioner also argues that the claims are “nonsensical and thus indefinite” when construed as not conditional because “[t]he same timer started once cannot both be stopped and expired,” and invites us to “address the definiteness issue.” Pet. Remand Br. 7–12. We decline the invitation because a petitioner’s grounds for unpatentability in an *inter partes* review cannot include indefiniteness under Section 112. *See* 35 U.S.C. § 311(b). Moreover, we are readily able to apply the Federal Circuit’s non-conditional construction. Claim 1 recites a method that behaves one way when a missing block is received and a different way when the missing block is not received. There is one timer that either stops, if the block arrives in time, or expires, if the block does not arrive in time.

that Petitioner does not sufficiently carry its burden to show unpatentability of independent claim 8 as anticipated by Sachs by a preponderance of the evidence. We also determine, for the same reasons set forth for independent claim 1, that Petitioner does not sufficiently carry its burden to show unpatentability of independent claim 8 as obvious in view of Sachs by a preponderance of the evidence.

5. *Dependent Claims 2–7, 9, and 10*

Claims 2–7 depend directly or indirectly from claim 1, and claims 9 and 10 depend directly from independent claim 8. Therefore, these dependent claims include the “stopping the timer” limitation discussed above. Ex. 1001, 16:54–17:12, 18:9–18. In addressing dependent claims 2–7, 9, and 10, Petitioner does not add to its analysis of the “stopping the timer” limitation. Accordingly, for the same reasons discussed above, we determine that Petitioner does not sufficiently carry its burden to show unpatentability of claims 2–7, 9, and 10, either by anticipation or obviousness, by a preponderance of the evidence.

E. Challenges 3 through 5—Anticipation by Wei, Obviousness Over Wei Alone, and Obviousness Over Wei and 3GPP TS 25.322

Neither party appealed the conclusions in the Final Written Decision related to Grounds 3 through 5. Accordingly, our Decision does not address these challenges.

III. CONCLUSION

For the reasons discussed above, Petitioner has not demonstrated, by a preponderance of the evidence, that claims 1–10 are unpatentable. Our

conclusions on remand regarding the challenged claims are summarized below:

Claims Challenged	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–10	102	Sachs		1–10
1–10	103(a)	Sachs		1–10
Overall Outcome				1–10

IV. ORDER

For the reasons given, it is

ORDERED that Petitioner has not established by a preponderance of evidence that claims 1–10 of the '396 patent are unpatentable as anticipated under 35 U.S.C. § 102 or as obvious under 35 U.S.C. § 103; and

FURTHER ORDERED because this Decision on Remand amounts to a Final Written Decision, parties to this proceeding seeking judicial review of our Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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