

# United States Court of Appeals for the Federal Circuit

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SIERRA WIRELESS, ULC, HONEYWELL  
INTERNATIONAL INC., TELIT CINTERION  
DEUTSCHLAND GMBH F/D/B/A THALES DIS AIS  
DEUTSCHLAND GMBH,  
*Appellants*

v.

SISVEL S.P.A.,  
*Cross-Appellant*

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2023-1059, 2023-1085, 2023-1089, 2023-1125

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Appeals from the United States Patent and Trademark  
Office, Patent Trial and Appeal Board in No. IPR2021-  
00580.

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Decided: March 10, 2025

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Before MOORE, *Chief Judge*, SCHALL and TARANTO, *Circuit Judges*.

MOORE, *Chief Judge*.

Sierra Wireless, ULC; Honeywell International Inc.; and Telit Cinterion Deutschland GmbH (collectively, Appellants) appeal a final written decision of the Patent Trial and Appeal Board (Board) holding claims 3–5, 9, and 10 of U.S. Patent No. 7,869,396 were not shown to be unpatentable. Sisvel S.p.A. (Sisvel) cross-appeals the Board’s holding that claims 1, 2, and 6–8 of the ’396 patent are unpatentable. For the following reasons, we vacate and remand.

#### BACKGROUND

Sisvel owns the ’396 patent, which relates to “a data transmission method and a data retransmission method which can reduce loss in data transmission” in a wireless communication system. ’396 patent at 1:17–20. Data is packaged into protocol data units (PDUs) for transmission. *Id.* at 6:48–52. PDUs are typically assigned sequence numbers to help the receiver detect missing PDUs and place received PDUs in sequential order. *Id.* at 5:4–6; J.A. 1128–29 ¶ 70. Prior art techniques for reducing data loss include the automatic repeat request (ARQ) method, in which a receiver sends a message to a transmitter if an expected PDU is not received, allowing the transmitter to retransmit the missing PDU. ’396 patent at 1:58–2:5.

The '396 patent claims a variation of the ARQ method that aims to increase reliability and efficiency. *Id.* at 2:11–13. In the claimed method, the receiver activates a timer when a PDU is detected as missing. *Id.* at 14:28–30. If the missing PDU is not received before the timer expires, a reception failure is detected and reported to the transmitter. *Id.* at 14:30–34. If the missing PDU is received before the timer expires, the timer is stopped. *Id.* at 14:38–46. Claims 1 and 8 are the only independent claims. Claim 1 reads:

1. [pre] A method of performing automatic repeat request (ARQ) in a wireless communication system, the method performed by a receiver and comprising:

[a] detecting whether at least one data block to be received from a transmitter is missed;

[b] starting a timer when the at least one data block is detected as missed;

[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

[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.

*Id.* at 16:39–53 (emphasis and bracketed labels added).

As relevant here, Appellants petitioned for *inter partes* review of the '396 patent, challenging all ten claims as anticipated by and obvious in view of International Patent Application Publication No. WO 02/091659 (Sachs). The Board, in a divided opinion, held claims 1, 2, and 6–8 to be unpatentable as anticipated by and obvious in view of

Sachs. The Board held claims 3–5, 9, and 10 were not shown to be unpatentable. Appellants appeal the Board’s holding as to claims 3–5, 9, and 10 and argue the Board abused its discretion by relying on testimony from Sisvel’s declarant, Regis Bates. Sisvel cross-appeals the Board’s holding as to claims 1, 2, and 6–8. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

#### DISCUSSION

We review the Board’s legal conclusions de novo and its factual findings for substantial evidence. *Redline Detection, LLC v. Star Envirotech, Inc.*, 811 F.3d 435, 449 (Fed. Cir. 2015). Anticipation is a question of fact. *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1341 (Fed. Cir. 2016). Obviousness is a question of law based on underlying findings of fact. *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). What a prior art reference discloses is a question of fact. *Adasa Inc. v. Avery Dennison Corp.*, 55 F.4th 900, 910 (Fed. Cir. 2022). The level of ordinary skill in the art is a question of fact. *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1358 (Fed. Cir. 2017).

##### I. Sisvel’s Cross-Appeal: Claims 1, 2, and 6–8

Sisvel argues the Board erred in holding claims 1, 2, and 6–8 to be unpatentable as anticipated and obvious based on Sachs. Sisvel Br. 65–75. First, Sisvel argues the Board erroneously construed limitations 1[c] and 1[d] as conditional. Second, Sisvel argues the Board’s finding that Sachs discloses limitation 1[c] is not supported by substantial evidence. We agree with Sisvel on both counts.

The Board held limitations 1[c] and 1[d] are mutually exclusive. That is, they “cannot both occur in response to the same set of stimuli” because the timer either stops upon receipt of the missing PDU (as required by limitation 1[c]) or expires without having received the missing PDU (as required by limitation 1[d]), but it cannot do both. J.A. 16–17. On that basis, the Board held the prior art need only

disclose limitations 1[a], 1[b], and 1[c] *or* limitations 1[a], 1[b], and 1[d] to anticipate claim 1. *Id.* That conclusion does not follow from the premise describing the claim language. While the canons of claim construction teach that claims should be construed to preserve their presumed validity, this is “[i]f, after applying all other available tools of claim construction, a claim is ambiguous.” *Ruckus Wireless, Inc. v. Innovative Wireless Sols., LLC*, 824 F.3d 999, 1004 (Fed. Cir. 2016). Here, we reject the Board’s conclusion because 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. ’396 patent at 16:46–53 (“stopping the timer . . . *and* transmitting the status report after the timer expires” (emphasis added)).

The Board found Sachs Figure 5 discloses “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[c]):

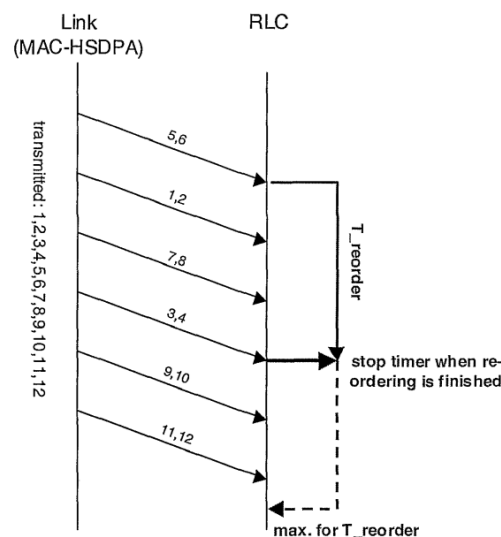


Figure 5

J.A. 1295; J.A. 13–19. The Board relied on Sachs’ teaching that “[i]n a preferred embodiment the timer is stopped before the timer expiry when at the reception of a data packet the sequence is established.” J.A. 17–18 (quoting J.A. 1275–76 at 9:34–10:1). The Board found Sachs discloses limitation 1[c] because the timer in Figure 5 is stopped upon receipt of any missing PDUs, and not after the occurrence of some separate reordering procedure. J.A. 17–18.

The Board’s finding that Sachs Figure 5 discloses limitation 1[c] is not supported by substantial evidence. Sachs itself explains that Figure 5 depicts stopping the T\_reorder timer after PDUs have been put into sequential order. Indeed, the portion of Sachs on which the Board relied explains “the timer is stopped before the timer expiry when at the reception of a data packet *the sequence is established.*” J.A. 17 (quoting J.A. 1275–76 at 9:34–10:1) (emphasis modified). In its description of the invention, Sachs states “the reo[r]dering-delay shall preferably be stopped when all outstanding PDUs are received and the sent sequence is re-established. This can be achieved by stopping the duration of the T\_reorder timer, *when reordering is finished.* This embodiment is shown in figure 5.” J.A. 1280 at 14:2–6 (emphasis added). Figure 5 itself is clearly labeled “stop timer when re-ordering is finished.” J.A. 1295.

Appellants’ own declarant, Dr. Apostolos Kakaes, opined that according to Sachs Figure 5, the timer stops after reordering and not upon receipt of the missing PDUs:

The timer continues until the [Radio Link Control (RLC)] receiver receives each of the expected but missing PDUs: 1, 2, 3, and 4 (which includes specifically PDU4) and thus has a complete, correctly ordered subset, *i.e.*, 1, 2, 3, 4, 5, 6, 7, and 8. When that occurs, Figure 5 explains to ‘stop timer when re-ordering is finished.’ Here, Sachs refers to the reordering of the received PDUs in sequential order in the buffer.

J.A. 1172–73 ¶ 154; *see* J.A. 233. Sisvel argued that Sachs does not disclose limitation 1[c] because “Figure 5 discloses stopping a timer, but only when reordering is finished.” J.A. 515. Oddly, Appellants replied by citing this same paragraph of Dr. Kakaes’ declaration that states the T\_reorder timer stops when reordering is finished. J.A. 622 (citing J.A. 1172–73 ¶ 154). The 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. Therefore, the Board’s fact finding to the contrary is not supported by substantial evidence.

Because the Board’s fact finding that Figure 5 discloses limitation 1[c] is not supported by substantial evidence, we vacate the Board’s holdings that claim 1 is anticipated by and obvious in view of Sachs and its holdings regarding claims 2 and 6–8, which incorporate this same erroneous finding. *See* J.A. 20–22, 32–34.

## II. Appellants’ Appeal: Claims 3–5, 9, and 10

Appellants appeal the Board’s determination that dependent claims 3–5, 9, and 10 were not shown to be unpatentable. Because we vacate the Board’s findings of unpatentability of the independent claims, we need not reach the Appellants’ arguments regarding dependent claims 3–5, 9 and 10. We do, however, agree with Appellants that the Board abused its discretion by relying on the testimony of Sisvel’s expert Mr. Bates, absent a finding that he is qualified as an ordinarily skilled artisan.

“To offer expert testimony from the perspective of a skilled artisan in a patent case—like for claim construction, validity, or infringement—a witness must at least have ordinary skill in the art.” *Kyocera Senco Indus. Tools Inc. v. Int’l Trade Comm’n*, 22 F.4th 1369, 1376–77 (Fed. Cir. 2022). We review the Board’s evidentiary determinations, including the credibility of expert testimony, for abuse of discretion. *See Shoes by Firebug LLC v. Stride*

*Rite Children's Grp., LLC*, 962 F.3d 1362, 1372 (Fed. Cir. 2020). “The Board abuses its discretion if its decision (1) is clearly unreasonable, arbitrary, or fanciful; (2) is based on an erroneous conclusion of law; (3) rests on clearly erroneous fact finding; or (4) involves a record that contains no evidence on which the Board could rationally base its decision.” *ClearOne, Inc. v. Shure Acquisition Holdings, Inc.*, 35 F.4th 1345, 1351 (Fed. Cir. 2022) (internal quotation marks and citation omitted).

Appellants argue the Board abused its discretion by crediting Sisvel’s declarant, Mr. Bates, because he was not a skilled artisan under the Board’s definition. Appellants Br. 62–64. The Board found a skilled artisan to the ’396 patent “would have had a degree in electrical engineering or a similar discipline, with at least three years of relevant industry or research experience, including experience designing or implementing wireless radio systems for data transmission and retransmission.” J.A. 8. Mr. Bates lacks a technical degree in electrical engineering or any other engineering or science discipline. J.A. 3138 ¶ 7. His professional experience relates to “designing, building, optimizing and training others in many aspects of telecommunications systems,” J.A. 3138 ¶ 8, but does not specifically include “designing the channels and methods for transmitting and retransmitting data in a cellular network,” J.A. 3091 at 45:18–46:16. Mr. Bates’ experience does not, on its face, satisfy the Board’s requirements for a skilled artisan. Mr. Bates’ declarations opine on anticipation and obviousness, issues that must be examined from the perspective of a skilled artisan. J.A. 3157–62 (declaration of Mr. Bates); J.A. 3209–15 (second declaration of Mr. Bates); *Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1284 (Fed. Cir. 2017) (“Anticipation is an inquiry viewed from the perspective of one skilled in the art.”); *HVLPO2, LLC v. Oxygen Frog, LLC*, 949 F.3d 685, 688 (Fed. Cir. 2020) (“Obviousness and each of its underlying components are analyzed from the perspective of a



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person of skill in the art.”). The Board cited and relied upon Mr. Bates’ testimony throughout its anticipation and obviousness analyses. *See, e.g.*, J.A. 24, 26, 28, 30. Appellants contend the Board’s failure to provide reasoning for its decision to credit Mr. Bates’ testimony was an abuse of discretion. We agree.

Sisvel argues Mr. Bates has decades of experience in the telecommunications field, which more than suffices to satisfy the engineering degree required by the Board’s ordinarily skilled artisan finding. Sisvel Br. 62–64. The Board, however, made no such determination regarding whether Mr. Bates qualifies as a skilled artisan despite his lack of credentials specified in the Board’s definition. Whether 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.

#### CONCLUSION

For the foregoing reasons, we vacate the Board’s holding that claims 1, 2, and 6–8 are unpatentable as anticipated by and obvious in view of Sachs. We hold that the Board abused its discretion by relying on Mr. Bates’ testimony where he does not satisfy the requirements for an ordinarily skilled artisan and the Board made no finding that his years of experience were sufficient to establish that he was at least an ordinarily skilled artisan. Because we vacate on Sisvel’s cross-appeal, which includes the independent claims, we need not reach Appellants’ appeal regarding the patentability of dependent claims 3–5, 9, and 10. We remand for further proceedings consistent with this opinion.

#### VACATED AND REMANDED

#### COSTS

No costs.