

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA, INC., and
GOOGLE LLC,
Petitioners,

v.

HEADWATER RESEARCH LLC,
Patent Owner.

Case No. IPR2024-00341
Patent No. 8,406,733

AUTHORIZED RESPONSE TO DIRECTOR REVIEW REQUEST

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I. INTRODUCTION

After a full trial on the merits, the Board issued a thorough, fifty-plus page Final Written Decision finding all challenged claims of the '733 Patent unpatentable. *See* Paper 28 (“FWD”). Unable to challenge the FWD on its substance, Headwater’s Request (Paper 30, “Request”) argues that an “important issue of law or policy” warrants Director Review because the Petition (Paper 4, “Pet.”) allegedly “admitted” that the claimed “agent communication bus” was not disclosed in the prior art and relied on “general knowledge” to “supply” it in violation of Rule 42.104(b)(4) and 35 U.S.C. § 311(b). Request, 1-3 (citing July 31, 2025 Memorandum (“Memorandum”)). This is a new argument Headwater never made to the Board. The Director should deem this argument waived. Moreover, the Memorandum on its face only applies to petitions filed on or after September 1, 2025, and this Petition was filed on January 23, **2024**.

If considered, Headwater’s argument fails because it is based on a false premise. An “agent communication bus” was not missing from the prior art and the Petition never “admitted” that it was. Instead, the Petition presented two alternative arguments demonstrating how the “agent communication bus” was met by *express* disclosures in the prior art. *See infra* § II.C; Pet., 28-31. The Board credited both arguments, one of which the Request ignores entirely. *See infra* § II.C; FWD, 18-32 and 45-49. Indeed, while Headwater purports to request Director Review of the

Board's FWD, the Request does not cite the FWD a single time. That is because the FWD directly refutes the Request's accusations.

As discussed *infra* § II.F, the Request also improperly advances new arguments based on discretionary considerations relating to the parallel district court litigation against Samsung and the length of time the challenged patent has been in force. Request, 1 and 4. *See* Director Review Process § 2.B (“...a request for Director Review of a final decision is not an opportunity to raise issues related to... how the Board exercised the Director’s institution discretion.”). Headwater could have raised these arguments earlier, for example in a Preliminary Patent Owner Response (which Headwater did not file), or in the Patent Owner Response. Instead, Headwater waited until ***after it lost at FWD*** to raise them. The Director should deem these belated arguments waived. It would be highly prejudicial to Petitioners for the Director to vacate the FWD based on discretionary considerations because, in reliance on Office policy and the institution of the IPR trial, Samsung honored its stipulation to not use the Petition’s prior art in the already-completed district court trial.

Headwater ignores the FWD’s careful analysis, mischaracterizes the Petition’s arguments, disregards the prior art evidence of record, and belatedly raises untimely new arguments. The Director should reject Headwater’s Request and leave undisturbed the Board’s FWD finding that the challenged claims are unpatentable.

II. ARGUMENT

A. Headwater's Untimely Request for Rehearing of the Board's Institution Decision Should Be Rejected

Headwater asks the Director to overturn the Board's Institution Decision. Request, 4 (“Patent Owner respectfully requests that the Board vacate the Board’s Final Written Decision *and terminate the IPR as having been improperly instituted*, or in the alternative find that the Petition’s theory failed to meet the statutory grounds for an IPR and find all challenged claims not unpatentable.”).¹

The proper time to request rehearing of the Institution Decision was “[w]ithin 14 days” of its entry. 37 C.F.R. § 42.71(d). The Institution Decision was entered on July 26, 2024, so the deadline to request rehearing of that decision passed on August 9, 2024. Headwater’s Request to “terminate the IPR as having been improperly instituted” was filed on August 22, 2025—*more than a year too late*. Headwater’s improper and untimely Request should be denied. *See* Director Review Process § 2.B (“...a request for Director Review of a final decision *is not an opportunity to raise issues related to the Board’s decision on institution*.”).

B. Headwater Waived Every Argument in the Request

Headwater did not raise *any* of the arguments in its Request for Director Review—including the Petition’s purported violations of Rule 42.104(b) and 35

¹ All emphasis added unless otherwise specified.

U.S.C. § 311(b)—until after receiving an unfavorable FWD from the Board. *See* Patent Owner’s Response (Paper 17, “POR”), 1-12; Patent Owner’s Sur-Reply (Paper 21, “PO Sur-Reply”), 1-21.

Time and again, Headwater declined the opportunity to raise these issues. Headwater submitted no Preliminary Patent Owner Response. Headwater sought no review of the Board’s Institution Decision. And—despite being “cautioned that any arguments not raised” in its POR “may be deemed waived” (Scheduling Order (Paper 13), 9)—Headwater’s POR *never* argued that the Petition failed to identify where (or how) the prior art relied upon disclosed the claimed “plurality of device agents communicatively coupled to the service control device link agent through an agent communication bus.” *See* POR, 6-7 (never arguing that the Petition overly relies on expert testimony or violates 37 C.F.R. § 42.104(b) or 35 U.S.C. § 311(b)). Headwater only challenged the *substance* of the teachings in the prior art that the Petition relied upon and the Board properly rejected Headwater’s substantive arguments as discussed *infra* § II.C.

Headwater never alleged that the Petition relied on “expert testimony or the general knowledge of a POSITA” to “supply” a “missing claim limitation[.]” as the Request belatedly alleges. Request, 1-2. Headwater had ample opportunity to raise that argument and failed to do so. Now, unhappy with the outcome, Headwater tries to undo the Board’s careful work by invoking Director Review and raising an

argument it could have raised over a year ago. This is improper. The arguments in Headwater’s Request should be deemed waived.

To the extent Headwater suggests that anything in the July 31, 2025 Memorandum somehow justifies Headwater belatedly advancing the argument that the Petition violates Rule 104(b)(4) (*see* Request, 1-2), that should be rejected. The Memorandum does not even apply to this proceeding. Memorandum, 3 (“This Memorandum will apply to any petition for IPR filed *on or after September 1, 2025.*”). The IPR2024-00341 Petition was filed *over a year and a half before* September 2025—on January 23, 2024.

C. The Petition Did Not Rely on General Knowledge to Meet the Claimed “Agent Communication Bus”

The Petition presented two alternative arguments showing how the “agent communication bus” term was met. Pet., 28-31. Both arguments were based on “prior art consisting of patents or printed publications” as required by 35 U.S.C. § 311(b), and the Petition specified “where” the “agent communications bus” claim element “is found in the prior art patents or printed publications relied upon” in compliance with Rule 42.104(b). The Board considered the parties’ positions on both arguments and, for each, found in favor of Petitioners. FWD, 18-32 and 45-49.

1. The Petition’s First Argument Based on TS-23.140’s Express Disclosure Did Not Rely on General Knowledge

The Petition explained that TS-23.140 (EX-1004) *expressly disclosed*

applications in communication with one another, and that under a proper claim construction consistent with the way the challenged patent uses the term “agent communication bus,” these disclosed applications in communication with one another are agents “communicatively coupled... through an agent communication bus,” as claimed. Pet., 29-30.

The Board understood and credited this argument. FWD, 18-32. As the Board found, based on the intrinsic evidence, the disputed limitation requires nothing more than applications that are, “in the words of the ’733 patent, ‘talk[ing] to one another.’” FWD, 28-29 (citing EX-1001, 42:48-61). Headwater does not challenge that this is the proper interpretation of the “agent communication bus” term. *See* Request, 1-4; FWD, 29; PO Sur-Reply, 14; EX-1038, 24 (confirming that Headwater interpreted the term the same way in litigation). The only remaining question for the Petition’s first argument was whether TS-23.140 discloses that its MMS User Agent and destination applications talk to one another. As the Board found—and Headwater never disputed—***TS-23.140 expressly discloses this***. EX-1004, 54-56; FWD, 27.²

² Headwater has, in fact, repeatedly ***acknowledged*** data is communicated between TS-23.140’s MMS User Agent and destination applications. POR, 10 (arguing ***how*** “data would be directed”—instead of ***whether***); PO Sur-Reply, 19 (same).

Thus, the Petition’s first argument demonstrates that the claimed “agent communications bus”—under the proper claim interpretation that Headwater does not dispute—is met by the express disclosure in a prior art printed publication (TS-23.140) in compliance with 35 U.S.C. § 311(b) and Rule 42.104(b). There is no “missing limitation” that the Petition sought to meet with “expert testimony or general knowledge of a POSITA” as Headwater erroneously alleges. Request, 1-2. The Petition cited expert testimony only “to demonstrate how a skilled artisan *would have understood a prior art reference’s disclosure as teaching a claim limitation.*” Memorandum, 1-2 (citing *Unification Techs. LLC v. Micron Tech. Inc.*, 2024 WL 3738401, at *7 (Fed. Cir. Aug. 9, 2024)). And the Petition corroborated the cited expert testimony by citing TS-23.140 itself and another prior art printed publication describing TS-23.140. Pet., 29-30 (citing TS-23.140 (EX-1004) and EX-1028 (explaining how TS-23.140 works)); FWD, 26-30.

Headwater’s Request hinges on Headwater’s assertion that the Petition “acknowledge[d],” “admitted,” and was “explicit” that the Petition’s “prior art relied upon” does not disclose the claimed “agent communication bus.” Request, 1-3. That is demonstrably false.

Headwater seizes on TS-23.140’s statement that the “[d]etails” of “*how* an MMS User Agent... would interface with” TS-23.140’s other “applications” are “outside the scope” of the specification. EX-1004, 54. But the “[d]etails” of “*how*”

the applications communicate in TS-23.140 are immaterial to meeting the claimed “agent communications bus.” Headwater *has never disputed* Petitioners’ showing that TS-23.140 expressly discloses that its “destination application[s]” are “*in communication with* an MMS User Agent”—i.e., they “talk to one another” (FWD, 28-29)—over *some* interface. FWD, 27; Pet., 30; POR, 8-12; Petitioners’ Reply (Paper 19, “Pet. Reply”), 1; PO Sur-Reply, 2-12. Further, as the Board found *and Headwater does not dispute*, this claim limitation requires nothing more than, “in the words of the ’733 patent,” applications that “talk to one another.” FWD, 28-29 (citing EX-1001, 42:48-61). Thus, as Petitioners explained and the Board found, nothing more is required to establish that TS-23.140’s “MMS User Agent” and “destination applications” are communicatively coupled “through an agent communication bus,” as claimed. Pet., 30; EX-1001, 42:48-61; FWD, 28-29.

Headwater’s assertion that the claimed “agent communications bus” is missing from the prior art and met in the Petition only by expert testimony and the general knowledge of a POSA is plainly and demonstrably wrong. The Request is baseless and should be rejected.

2. The Request Does Not Even Address the Petition’s Second Argument That Using an Agent Communications Bus to Implement What TS-23.140 Discloses Would Have Been Obvious, Which Also Did Not Rely on General Knowledge

Headwater does not even acknowledge that the Board *also* found its claims unpatentable under an *alternative* theory that Headwater does not challenge. *See*

Request, 1-4 (ignoring Petitioners’ obviousness argument at Pet., 30-31 credited in the FWD at 48-49). The Petition’s second argument was that there was reason and motivation to implement the communications disclosed in TS-23.140 via an agent communication bus because the prior art taught that an agent communication bus (in the form of a software bus) was a conventional and well-known way to facilitate inter-process communications like those in TS-23.140. Pet., 30-31. For support, the Petition cited EX-1031—a prior art patent expressly describing use of a software bus for inter-process communications that enable applications to interface with one another just like in TS-23.140—and EX-1028, a prior art printed publication confirming the presence of a communication interface between the MMS User Agent and the destination applications *in TS-23.140*. Pet., 30-31. The Board agreed. FWD, 48-49 (citing the TS-23.140 and the supporting patents and printed publication relied upon in the Petition: EX-1004; EX-1028; EX-1008; EX-1031); *see also* Pet. Reply, 9-10 (additionally citing EX-1048; EX-1049; EX-1050).

Headwater’s Request does not dispute the Board’s findings or *even allege* that this alternative argument somehow violates Rule 104(b)(4) or 35 U.S.C. § 311(b). Any such argument would have clearly failed because in this alternative argument in the Petition, the claimed “agent communication bus” is based on express disclosures in prior art references that the Board credited as teaching an agent communication bus. FWD, 48 (finding that the Petition cites *prior art* references

(EX-1008, ¶ 28, Fig. 4; EX-1028, 732-733; EX-1031, 10:56-62) corroborating the testimony of Petitioners’ expert that “a bus was known for inter-process communication and would have been a conventional way to implement what TS-23.140 describes.”). This fully complies with Rule 104(b)(4) and 35 U.S.C. § 311(b). *E.g., Koninklijke Philips NV v. Google LLC*, 948 F. 3d 1330, 1337-38 (Fed. Cir. 2020) (holding that “rel[ying] on expert evidence... corroborated by” a prior art reference to show that a claimed element “was not only in the prior art, but also within the general knowledge of a skilled artisan” is consistent with § 311(b)).

Thus, even if there were merit to Headwater’s complaint about the Petition’s first argument (there is not), that would provide no basis to “vacate or reverse the Board’s” FWD (Request, 1) because the Board *also* found the claims unpatentable under an alternative *second* theory that Headwater does not even challenge.

D. The July 31, 2025 Memorandum Does Not Help Headwater

Headwater’s citation to the Memorandum (Request, 1) stating that the Office will enforce Rule 104(b)(4) is misplaced. Setting aside the fact that the Memorandum on its face does not apply to this Petition because it was filed in January 2024, the Board did not *waive* enforcement of 37 C.F.R. § 42.104(b)(4) and Headwater cites nothing suggesting that it did. There was no reason for the Board to even consider waiving Rule 104(b)(4) because the Petition fully complied with that rule and used expert testimony only in ways the Memorandum reinforces are

appropriate. *See supra* § II.C; Memorandum, 1-2.

E. Headwater’s Reliance on *Qualcomm Inc. v. Apple Inc.* Fails

Headwater argues that the Board’s FWD was “inconsistent... with the statutory requirements and Federal Circuit precedent.” Request, 3-4 (citing *Qualcomm Inc. v. Apple Inc.*’s discussion of 35 U.S.C. § 311(b)). Not so.

In *Qualcomm*, the Federal Circuit considered IPR petitions in which the grounds were based on “Admitted Prior Art (AAPA).” 134 F.4th 1355, 1359 (Fed. Cir. 2025). Unlike in *Qualcomm*, it is undisputed that Petitioners *did not rely* on AAPA here. *See supra* § II.C; Pet., 1. Moreover, as discussed *supra* § II.C.1, Headwater’s allegations that “there are ‘express statements by [Petitioners] that’ something other than prior art is ‘part of the basis of’ any particular ground” (Request, 3), and that there are “*Petitioner-admitted* deficiencies in the prior art” (Request, 4) (emphasis original), are simply false. Headwater’s attempt to invoke a violation of 35 U.S.C. § 311(b) using *Qualcomm*’s AAPA-related holding fails.

F. Headwater’s Discretionary Arguments Fail

Headwater alleges that the Director should vacate or reverse the Board’s FWD “particularly where Petitioner has already attempted (and failed) to invalidate the challenged patent before a district court, and the challenged patent has been in force for over a dozen years.” Request, 1; *see also id.*, 4. Headwater’s discretionary arguments should be rejected for numerous reasons.

First, Headwater waived these arguments. Headwater made *no* discretionary

denial or discretionary termination arguments to the Board. Headwater never argued that the Board should have discretionarily denied institution or terminated the IPR based on the parallel district court litigation (e.g., under *Fintiv*) or settled expectations.³ Headwater waited until after it *lost at FWD* to belatedly raise these arguments. The Director should not reward Headwater’s gamesmanship. Instead, the Director should deem these arguments waived. *See also supra* § II.B.

Second, Headwater’s attempt to use the Director Review Process to undo an FWD based on discretionary considerations is improper. Director Review Process § 2.B (“...a request for Director Review of a final decision is not an opportunity to raise issues related to the Board’s decision on institution, for example... *how the Board exercised the Director’s institution discretion.*”).

Third, “[h]aving already conducted a trial and issued a Final Written Decision, the Office will not gain any efficiencies by terminating this proceeding.” *Innoscence (Zhuhai) Tech. Co. v. Efficient Power Conversion Corp.*, IPR2023-01381, Paper 55, at 2 (PTAB June 10, 2025) (denying requests for Director Review).

³ The Memorandum establishing the Interim Processes for PTAB Workload Management explained on March 26, 2025—before the oral hearing and long before the FWD—that “the length of time the claims have been in force” could be considered for discretionary denial.

Fourth, vacating or reversing the Board’s FWD for discretionary reasons would be highly prejudicial to Petitioners. When Petitioners filed this IPR, the USPTO’s policy was that “the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.”⁴ Relying on this guidance, Samsung filed such a stipulation (EX-1044) and *did not proceed* before the District Court jury with any IPR-eligible prior art, with the understanding that the Board would rule on the merits of the Petition’s grounds in the already-instituted IPR. EX-1044, 1 (“Samsung hereby stipulates that, *if the PTAB institutes* IPR2024-00341, Samsung agrees not to pursue any grounds raised in the IPR, any grounds raised within Samsung’s invalidity contentions that were raised or could have been raised in the IPR, or any grounds Samsung could have reasonably raised before the PTAB.”). Because of Samsung’s stipulation, the jury *was not presented with any of the unpatentability*

⁴ June 21, 2022 Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation, at 3, *available at* https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621.pdf. This policy was not rescinded until February 28, 2025.

grounds that were presented here. Had Headwater timely raised discretionary denial arguments and persuaded the Board to discretionarily deny institution, the stipulation would not have been triggered and Samsung would have been free to present the prior art grounds used in the Petition to the jury in the District Court litigation. Terminating this IPR now based on Headwater’s belatedly-presented discretionary denial arguments—*after* the District Court jury trial concluded *without considering* the grounds that the Board’s thoroughly-reasoned FWD found proved the claims unpatentable—would be highly prejudicial.

Fifth, Headwater’s assertion that “Petitioner should not be allowed to overturn a considered jury verdict of... no invalidity” (Request, 4) is disingenuous. As noted, the jury *was not presented with any of the unpatentability grounds that were presented here because of Samsung’s stipulation.* The jury’s verdict is thus irrelevant to the Institution Decision or FWD. Moreover, Headwater’s argument is nonsensical—it amounts to saying that a jury’s finding regarding validity *based on an incomplete record lacking the grounds that were raised in the IPR* should be used to undo an FWD that evaluated the grounds the jury never considered. Petitioners filed this IPR *long* before there was a jury verdict and are not looking to “overturn” the jury’s findings. Further, the jury’s verdict was rendered under a presumption of validity that the challenged patent does not enjoy here. The verdict thus should not be used to discretionarily vacate or reverse the Board’s FWD.

III. CONCLUSION

For the above reasons, the Request for Director Review should be denied.

Respectfully submitted,

Date: September 2, 2025

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CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6 (e)(4)

I certify that on September 2, 2025, a copy of the foregoing document, including any exhibits filed therewith, is being served via electronic mail, as previously consented to by Patent Owner, upon the following:

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