

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., AND
SAMSUNG ELECTRONICS AMERICA, INC.,

Petitioners,

v.

HANNIBAL IP LLC,

Patent Owner.

Case No. IPR2025-01188
U.S. Patent No. 11,272,535

**PETITIONERS' OPPOSITION TO PATENT OWNER'S REQUEST FOR
DISCRETIONARY DENIAL OF INSTITUTION**

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I. INTRODUCTION

The Director should reject Patent Owner Hannibal IP LLC's request for discretionary denial (Paper 10, "DD Req."), consider the Petition on the merits, and institute this IPR. First, Hannibal's arguments regarding 35 U.S.C. § 325(d) are incorrect and only serve to highlight material error during prosecution of the application that issued as the '535 Patent. None of the prior art relied on in the Petition was considered during prosecution. And worse, the Applicant and its inventors withheld material information in a reference (*TS-38.321*) relied on in the Petition, which caused the Office to err in allowing the '535 patent.

Second, the '535 Patent issued just over three years ago and since its issuance the parties have been engaged in licensing discussions. Samsung had an expectation of nonenforcement based on those ongoing communications. The three other patents subject to copending IPR petitions issued between two and four years ago. The Director routinely declines to deny institution for such young patents, and here there is the additional factor of ongoing licensing discussions.

Third, the *Fintiv* factors similarly weigh against denial. The district court canceled the status conference to consider Samsung's stay motion, there are no case deadlines, and the parties are not proceeding, if at all, until after the court rules on the motion and resets a scheduling conference. No trial date is set and the median time-to-trial statistics place trial months after the last possible final written decision

(“FWD”) date. The Director regularly declines to apply discretionary denial in such instances. Hannibal’s arguments on the merits mischaracterize the Petition, the prior art, and the opinions of Petitioner’s expert, Dr. Kakaes. Such incorrect arguments favor moving to a merits consideration.

The ’535 Patent is young and subject to on-going licensing discussions, and the Board is best suited to address the complex 5G standards technology as well as the earlier error by the Office. The instant petition should be considered on the merits and instituted.

II. HANNIBAL’S ARGUMENTS UNDER 35 U.S.C. § 325(d) FAIL AND INSTEAD HIGHLIGHT THE OFFICE’S MATERIAL ERROR

Hannibal argues that “Samsung’s Petition presents art that is substantially the same as the art previously presented to the Patent Office.” DD Req. 12-13. Not only is this incorrect, but Hannibal’s discussion highlights how the Office materially erred when it allowed the ’535 Patent to issue and why institution would be an appropriate use of the Office’s resources.

A. The Office Never Considered *TS-38.321* During Prosecution, and Even if it Did, it Erred in Not Considering a Material Part of the Reference

Hannibal argues that “TS 38.321 is expressly discussed in the specification of the ’535 Patent.” DD Req. 12 (citing Ex. 1001, 6:1-11). But Hannibal points to no evidence that the Examiner ever considered this reference during prosecution.

Indeed, contrary to Hannibal’s argument that *TS-38.321* was art that was “presented to the Patent Office” (DD Req. 12-13), the reference was never submitted in an IDS. *See* Ex. 1003. Nor did the Examiner request this reference or indicate anywhere in the record that it was considered during prosecution. *See* Ex. 1001; Ex. 1003.

The specification of the ’535 patent mentions “Technical Standard (TS) 38.321” in relation to two UE variables “PREAMBLE_INDEX” and “PREAMBLE_RECEIVED_TARGET_POWER”:

In one implementation, an upper layer (e.g., a MAC layer) may instruct a lower layer (e.g., a PHY layer) to transmit a Random Access Preamble using a selected Physical Random Access Channel (PRACH) occasion, a corresponding Random Access Radio Network Temporary Identifier (RA-RNTI), a preamble index (e.g., a UE variable PREAMBLE_INDEX *as described in Technical Standard (TS) 38.321*) and a preamble received target power (e.g., a UE variable PREAMBLE_RECEIVED_TARGET_POWER *as described in TS 38.321*).

Ex. 1001, 6:1-11 (emphasis added). But there are many different versions of Technical Standard 38.321 (at least 18 versions existed at the time of filing), and the specification does not indicate which one it is referring to. Further, the Applicant did not provide this specific reference to the Examiner. Nor did the Examiner request it.

The relevant and material portion of *TS-38.321*, which was relied on in the Petition, deals with resetting a failure counter when resetting the MAC entity in

response to a request from an upper layer of the UE. Pet. 31-32, 45-46 (citing *TS-38.321*, 43-44). This part of *TS-38.321* is not mentioned anywhere in the specification. And the Examiner's failure to properly consider it despite the specification's reference to the standard constituted material error.

B. The Examiner's Failure to Consider *Shi*—a Primary Reference—Constitutes Material Error

Hannibal does not dispute that *Shi* was never considered during prosecution. Instead, Hannibal contends that U.S. Patent Publication No. 2018/0124831 ("*Dinan*"), which was cited during prosecution, is substantially the same as the art relied on in the Petition, including *Shi*. See DD Req. 12-13. This is not correct.

Hannibal's discussion of *Dinan* fails to address limitations [1a]-[1d] and instead only focuses on the "MAC reset" in limitation [1e]. DD Req. 12-13. But even if Hannibal's characterizations of *Dinan* were true, by its own omission, Hannibal fails to explain how *Dinan* discloses limitations [1a]-[1d] or resetting a MAC entity in response to a request from an upper layer of the UE, as required by limitation [1e].

By not even addressing limitations [1a]-[1d], Hannibal fails to show how *Dinan* is cumulative of the teachings of *Shi*. Regarding limitation [1e], as Hannibal points out, *Dinan* discloses "the UE may transmit an RRC message *to the MeNB* indicating that the LBT process is failed." Ex. 2003, [0187]. But, in distinguishing from the prior art during prosecution, the Applicant argued that the prior art (U.S.

Patent Publication No. 2017/0231005 to Babaei) did not disclose limitation [1e] because it disclosed sending a signal from “the eNB” and not from “an upper layer of the UE.” Ex. 1003, 131. For similar reasons, Dinan does not disclose limitation [1e]. Thus, at most, *Dinan* is cumulative of the prior art that was previously before the Patent Office. It is not, however, cumulative of *Shi*, which, unlike *Dinan*, does disclose resetting a MAC entity in response to a request from an upper layer of the UE. *Shi*, 5:31-40. Thus, again, Hannibal’s 325(d) arguments fail, and only further emphasize the Examiner’s failure to consider *Shi* was a material error.

III. SETTLED EXPECTATIONS SUPPORT A MERITS CONSIDERATION

The “settled expectations” of the parties weigh strongly against denial because (1) all challenged patents are young, with the ’535 Patent issuing three years ago in 2022 and the other asserted patents issuing in 2021, 2022, and 2023; (2) Samsung did not expect enforcement and had no reason to challenge validity because the parties were engaged in licensing discussions until the eve of the service of the Complaint; and (3) Samsung filed this Petition expeditiously less than four months after being served and just over two years after learning of the ’535 Patent.

A. The Ages of the ’535 Patent and Other Challenged Patents Weigh Against Discretionary Denial

None of Hannibal’s arguments related to the parties’ expectations withstand scrutiny. To the contrary, all weigh against discretionary denial.

1. The '535 Patent and Other Challenged Patents Issued Only a Few Years Ago, which Weighs Strongly Against Discretionary Denial

The '535 Patent issued March 8, 2022, only three-and-a-half years before the expected discretionary denial decision date. The Director has found that patents issued less than six years ago “have not been in force for a significant period of time ..., and, accordingly, Patent Owner has not developed strong settled expectations,” which weighs against denial. *See, e.g., Samsung Elecs. Co. v. Wilus Inst. of Standards & Tech. Inc.*, IPR2025-00935, Paper 12 at 2 (Deshpande, C.J., Sep. 26, 2025) (declining discretionary denial when “the challenged patents have not been in force for a significant period of time (issued in 2021 and 2023), and, accordingly, Patent Owner has not developed strong settled expectations that favor discretionary denial as to these patents”); *Samsung Elecs. Co. v. Wilus Inst. of Standards & Tech. Inc.*, IPR2025-00933, Paper 11 at 3 (Deshpande, C.J., Oct. 10 2025) (finding “Patent Owner has not developed strong settled expectations” where “most challenged patents issued between 2020 and 2023”); *Cambridge Indus. USA, Inc. v. Applied Optoelecs., Inc.*, IPR2025-00434, Paper 11 at 2-3 (Director June 26, 2025) (patent that issued in 2019 “ha[d] not developed strong settled expectations”); *Berkshire Hathaway Energy Co. v. Birchtech Corp.*, IPR2025-00274, Paper 23 at 2-3 (Director July 2, 2025) (same for patents that “issued in 2019 and 2020”).

The other challenged patents issued about four or fewer years ago. The '896

Patent issued July 6, 2021 (IPR2025-01187); the '911 Patent issued June 21, 2022 (IPR2025-01189); and the '661 Patent issued May 2, 2023 (IPR2025-01190). All therefore fall within the period where a “Patent Owner has not developed strong settled expectations,” which weighs against discretionary denial. *Samsung*, IPR2025-00935, Paper 12 at 2; *Samsung*, IPR2025-00933, Paper 11 at 3; *Cambridge*, IPR2025-00434, Paper 11 at 2-3; *Berkshire Hathaway*, IPR2025-00274, Paper 23 at 2-3.

2. Hannibal’s Alleged “Knowledge” Does Not Support Discretionary Denial

Hannibal alleges that “Samsung had knowledge of the application for the '535 Patent at least as of July 2021” allegedly because the application that led to the '535 patent was cited by an Examiner during prosecution of one of Samsung’s applications. DD Req. 15. But this does not show Samsung had actual knowledge of the '535 Patent, which did not issue until March 2022. The reference was cited by the USPTO in a list of references considered but never applied in any rejection of Samsung’s application. *See* Ex. 1047 (Prosecution History Excerpt for U.S. Patent Application No. 16/832,093). As such, the Examiner had considered the reference and determined it *did not* invalidate Samsung’s patent (which subsequently issued). *Id.* As such, Samsung had a reasonable expectation that it was *not* relevant to Samsung’s business. So, even if notice of the application via unrelated prosecution

was enough (and it is not), this citation produced the opposite effect.

Because the application was not an issued patent, Samsung had no knowledge at the time as to when, if at all, it would issue into a patent. Indeed, Hannibal does not allege Samsung had actual knowledge of the '535 Patent until February 2023.¹ DD Req. 15-6. Even taking Hannibal's knowledge assertion as true, this admits that Samsung filed its IPR petition just over two years after learning of the '535 Patent, which is reasonable given the parties' ongoing licensing discussions.

Hannibal alleges that it "had settled expectations regarding the '535 Patent and that Samsung would not challenge the patent's validity at the Patent Office." DD Req. 16. This misrepresents the facts and is a dubious *ex post* application of the Director's decisions, not Hannibal's actual belief. Hannibal had every reason to believe that, if the parties could not reach a licensing agreement and litigation ensued, Samsung **would** challenge validity, given Samsung's history of challenging patents

¹ Hannibal's 2022 letter that does not mention the '535 Patent does not provide notice of it. As one district court judge explained, "Saying you knew about [a patent] family is not too far a step from saying you knew there was this PTO in Virginia, and you should just go check everything there and see if anything there applies. It's too nebulous." See *Intell. Ventures I LLC v. T-Mobile USA, Inc.*, Hearing Tr. 61:2-9, No. 2:17-cv-00577-JRG, Dkt. 297 (E.D. Tex. Jan. 3, 2019).

that are asserted *in litigation* against them. For that reason, Hannibal kept Samsung engaged in ongoing discussions until the eve of service of the Complaint in 2025.

Hannibal's suggestion that Samsung should have challenged the '535 Patent and other challenged patents in IPR earlier rings hollow. Again, by Hannibal's own admission, Samsung and Hannibal were in continuing licensing discussions from 2022 until just before service of the Complaint. DD Req. 15-16. And these were not typical licensing discussions; there was an expectation by Samsung that an amicable license would result since Hannibal represented that its patents are standards essential. DD Req. 15; Ex. 2004, 1; Ex. 2005, 1. If true, Hannibal presumably understands that any entity that practices the relevant standards would owe it a FRAND license. Thus, it was Samsung's expectation that the licensing discussions that continued for years would eventually lead to a license.

The cases Hannibal cites (*iRhythm* and *Nvidia*) do not show otherwise. DD Req. 16. In *iRhythm*, the "persuasive" argument was that "one of the patents has been *in force since as early as 2012 and Petitioner was aware of it as early as 2013*," *and* petitioner "cited the then-pending application that issued as the challenged patent in an Information Disclosure Statement *Petitioner filed* in its own patent application." *iRhythm Techs., Inc. v. Welch Allyn, Inc.*, IPR2025-00363, Paper 10 at 3 (Director June 6, 2025). Thus, the *iRhythm* petitioner knew of and cited the challenged patent in its own IDS more than a decade before filing its petition. *Id.*,

Paper 10 at 3. That is not the case here. The '535 Patent is just over three years old and there is no assertion that Samsung knew about the '535 Patent before 2023 or any of the patents or any of the challenged patents' families before Hannibal contacted it in 2022. *See* DD Req. 15-16. Further, as discussed above, the USPTO—not Samsung—cited the application that led to the '535 patent in one of Samsung's applications but never applied it in any rejection. Hannibal does not allege Samsung was even aware that the application issued into a patent until 2023.

In *Nvidia*, one challenged patent “ha[d] been in force for over 11 years” and the other “originally issued in 2015,” but “reissued in 2023.” *Nvidia Corp. v. Neural AI, LLC*, IPR2025-00606, Paper 18 at 2-3 (Director July 31, 2025). The Director found that the parties “had a commercial relationship and, in 2017, [the patent owner] sent Petitioner a presentation” that included both patents at issue. *Id.* Thus, the petitioner in *Nvidia* waited seven years to file petitions after receiving the alleged notice and both of the patents were many years older than the '535 Patent and other challenged patents here.

Hannibal has no settled expectations to support discretionary denial.

B. Samsung's Settled Expectations Outweigh Any Expectations of Hannibal

Even if Hannibal could prove it has settled expectations—it does not—Samsung had no reason to anticipate assertion of any challenged patent prior to the

lawsuit because the parties were engaged in discussions for years until just before service of the Complaint. DD Req. 15-16; *see Apple, Inc v. Allani*, IPR2025-00856, Paper 11 at 3 (Director Sep. 5, 2025); *cf. Globus Med., Inc. v. Spinelogik, Inc.*, IPR2025-00225, Paper 8 at 2 (Director June 12, 2025) (referring for merits consideration when petitioner showed it did not expect enforcement); *Intel Corp. v. Proxense LLC*, IPR2025-00327, Paper 12 at 2-3 (Director June 26, 2025); *Home Depot U.S.A., Inc. v. H2 Intellect LLC*, IPR2025-00480, Paper 11 at 2-3 (Director Sep. 4, 2025). As such, Samsung's expectations weigh against discretionary denial.

IV. THE *FINTIV* FACTORS WEIGH AGAINST DISCRETIONARY DENIAL

The Director should not deny the Petition under *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (Mar. 20, 2020) (precedential) ("*Fintiv*"), because Factors 1, 2, 3, 4, and 6 weigh strongly against discretionary denial, and Factor 5 only slightly favors denial or is neutral.

A. Factor 1: The Trial Court Canceled the Initial Case Management Conference to Consider Samsung's Pre-Institution Motion to Stay and Is Likely to Grant Any Post-Institution Motion to Stay

Factor 1 weighs strongly against discretionary denial.

On September 19, the district court canceled the initial case management conference until it could "rule[] on [Samsung's] pending Motion to Stay [22]." Ex. 1042. This indicates that, not only is the district court considering granting a stay,

but it is considering staying the case *pre*-institution. If the court is willing to consider a pre-institution stay, then the stay would almost certainly remain in effect post-institution. As of now, there is no case schedule in place. As a result, the parties agreed that prior proposed dates such as those for serving infringement and invalidity contentions are not in effect. Ex. 1043.

Even if the court denies a pre-institution stay, its canceling of the case management conference is a likely indicator that it would revisit the issue post-institution. Leaving the possibility open for a post-institution stay, even if a pre-institution motion is denied, weighs against discretionary denial. *See Fintiv*, IPR2020-00019, Paper 11 at 6-7 (denial of pre-institution stay without prejudice “has usually weighed against exercising authority to deny institution under *NHK*”). When all patents are instituted, the assigned district court judge has stayed the entire case. *Stellar, LLC v. Motorola Sols., Inc.*, No. 4:23-CV-750-SDJ, Dkt. 170 (E.D. Tex. Apr. 21, 2025) (staying case when all asserted patents instituted in IPR by Board). And even when the Board has instituted some petitions, but other institution decisions remain pending, that same district court judge has stayed cases. *See id.*, No. 4:23-CV-750-SDJ, Dkt. 156 (E.D. Tex. Feb. 24, 2025) (granting stay when “the [Board] has instituted IPRs on four of those [eight] patents” and “will decide whether to institute IPRs on the remaining four patents” in later decisions). Thus, a stay is likely to be granted if the Board institutes petitions, even if just some.

B. Factor 2: No Trial Date Is Set and the Median Time-to-Trial Is More Than Two Months After the Latest Possible Final Written Decision Date

Factor 2 weighs strongly against discretionary denial. No trial date is set. When no trial date is set, the Director looks at the median time-to-trial statistics. *See Google LLC v. BrodTi Inc.*, IPR2025-00472, Paper 19 at 2 (Deshpande, C.J., June 25, 2025) (declining to discretionarily deny when no trial date scheduled and median time-to-trial suggested trial would occur after final written decision); *Google LLC v. Withrow Networks Inc.*, IPR2025-00775, Paper 10 at 2 (Deshpande, C.J., Aug. 14, 2025) (same); *Røde Microphones, LLC v. Freedman Elecs. Pty Ltd.*, IPR2025-00557, Paper 11 at 2 (Director July 17, 2025) (same).

Hannibal filed its Complaint on February 27, 2025. Ex. 1040; DD Req. 6. The median time-to-trial statistics show 25.1 months between filing and trial. Ex. 1044, 35. This would result in a trial date in early April 2027, more than two months *after* the latest possible final written decision date of January 21, 2027. *See* Paper 4, Notice of Filing Date (July 21, 2025).

Moreover, the trial date may push back even further. As explained above, the court canceled the initial case management conference, which will be rescheduled, if at all, after ruling on the motion to stay. Ex. 1042; *see Omnitek Partners, LLC v. Raytheon Techs. Corp.*, No. 4:24-CV-143-SDJ, Dkt. 17 (E.D. Tex. Jul. 3, 2024) (canceling case management conference stating that separate schedule will be

entered, if needed, after ruling on motion to dismiss); *Chien-Min Sung v. Samsung Elecs. Co.* No. 4:23-CV-752-SDJ, Dkt. 82 (E.D. Tex. July 26, 2024) (stating that new pretrial and trial dates will be reset, if needed, after ruling on motion to transfer). Thus, the pretrial conference date that Hannibal relies upon (DD Req. 17) may likely be superseded and delayed by any new schedule. *Omnitek*, No. 4:24-CV-143-SDJ, Dkt. 17; *Sung*, No. 4:23-CV-752-SDJ, Dkt. 82.

C. Factor 3: No Investment Has Occurred in the Parallel District Court Proceeding

Factor 3 weighs strongly against discretionary denial.

There has been little investment in the district court proceeding. The court canceled the initial case management conference, and it has not been rescheduled. There is currently no active case schedule, and the parties have agreed that prior proposed dates (such as for contentions) are not in effect and a case schedule should issue if the court does not stay the litigation. Hannibal has not served infringement contentions. Ex. 1043. Samsung has not served invalidity contentions. Discovery has not started. And the proceeding is effectively paused pending resolution of Samsung's pre-institution motion to stay. If a case schedule later issues, it would need to allow for additional time for initial proposed dates, such as contentions, that have already passed. *See id.* The early stage and lack of investment by either party or the court weighs strongly against discretionary denial.

D. Factor 4: There Is No Overlap Between Proceedings, and Samsung's Broad Stipulation Eliminates Any and All Potential Overlap

Hannibal does not argue any overlap between proceedings. Nor can it. Invalidity contentions have not been served. And, regardless, Samsung's stipulations (which are broader than *Sotera*) will, upon institution, eliminate even speculative overlap between proceedings by excluding any ground that uses patents or printed publications as a primary reference in any invalidity combination, any ground that uses any reference named in a ground of the Petition, and any ground where a patent or printed publication cited in the Petition is used as evidence of the operation or structure of a system art device. *See* Paper 9; *Tesla, Inc. v. Intell. Ventures II LLC*, IPR2025-00217, Paper 9 at 2 (Director June 13, 2025); *Samsung*, IPR2025-00933, Paper 11 at 3.

E. Factor 5: The Parties Are the Same

Recent decisions have indicated this is neutral or only slightly favors denial. *Innolux Corp. v. Phenix Longhorn*, IPR2025-00043, Paper 10 at 13 (May 15, 2025).

F. Factor 6: Strong Merits Show the Office Erred by Overlooking the Conventionality of the Alleged Point of Novelty

1. The Petition's Strong Merits Weigh Against Denial, and Hannibal's Merits Arguments Are Based on Several Mischaracterizations of the Petition, Prior Art, and Opinions of Dr. Kakaes

Hannibal argues that none of the prior art references disclose or suggest

limitation [1e]: “reset the LBT failure counter when a reset of the MAC entity is requested by an upper layer of the UE.” DD Req. 7-12. But in doing so, Hannibal mischaracterizes both grounds in the Petition as relying solely on the opinion of Dr. Kakaes for this limitation. Contrary to Hannibal’s assertions, the Petition relies on explicit teachings in the prior art that disclose each part of limitation [1e] and together render it obvious. Hannibal also incorrectly argues that the *TS-38.321* reference contradicts Dr. Kakaes’ opinions. The teachings of *TS-38.321* are entirely consistent with and support Dr. Kakaes’ opinions.

As set forth in the Petition, *Shi* discloses both limitations of “reset[ting] the LBT failure counter” and “a reset of the MAC entity is requested by an upper layer of the UE.” *Shi*, 5:29-40. Similarly, *Hong* discloses the limitation of “a reset of the MAC entity is requested by an upper layer of the UE.” *Hong*, [195]; *Hong Priority*, [0095]. *TS-38.321* further discloses resetting a failure counter in response to a reset of the MAC entity being requested by an upper layer of the UE. *TS-38.321*, 43-44. Hannibal does not dispute these teachings. *See* DD Req. 9-12.

Relying on these teachings and the supporting testimony from Dr. Kakaes, the Petition explains that the limitation of “reset the LBT failure counter when a reset of the MAC entity is requested by an upper layer of the UE” would have been obvious based on *Shi* and/or *Hong* in view of *TS-38.321*. Pet. 30-34, 44-48; Kakaes, ¶¶173-183, 213-226. Dr. Kakaes explains multiple reasons why this would have been

obvious and a POSITA would have been motivated to combine the references. *Id.* Rather than address this combination, Hannibal improperly resorts to attacking each reference individually and wrongly concludes that the Petition relies solely on Dr. Kakaes' opinion. *See Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1050 (Fed. Cir. 2019) ("A finding of obviousness, however, cannot be overcome by attacking references individually where the [ground] is based upon the teachings of a combination of references."); *GD Energy Products, LLC v. Kerr Machine Company*, PGR2025-00031, Paper 11 (Director June 25, 2025) (rejecting Patent Owner's arguments that Petitioner has "extensive reliance" on expert testimony and finding that Petitioner cites to the testimony to merely comply with regulations requiring disclosure of "underlying facts or data.") (quoting 37 C.F.R. § 42.65(a)).

Hannibal also mischaracterizes Dr. Kakaes' opinion as being premised on the requirement that "all counters maintained by the MAC entity are reset when the MAC is reset." DD Req. 10-12. Nowhere in Dr. Kakaes' declaration or the Petition does it say that all counters maintained by the MAC entity must be reset when the MAC is reset. Indeed, no such inherency argument was presented by Samsung. Instead, the Petition and Dr. Kakaes simply state that "[i]t was well known to a POSITA that resetting a MAC entity includes, for example, resetting counters associated with the MAC entity," and that "[a] POSITA would have been motivated to incorporate *TS-38.321*'s teachings of resetting a failure counter when resetting a

MAC entity into *Shi*'s method." Pet. 31-32, Kakaes, ¶¶177-178; *see also* Pet. 30-34, 44-48; Kakaes, ¶¶173-183, 213-226.

Hannibal is also incorrect in arguing that *TS-38.321* contradicts Dr. Kakaes' opinion. DD Req. 11-12. Hannibal points to the PREAMBLE_TRANS-MISSION-COUNTER and the PREAMBLE_POWER_RAMPING_COUNTER as allegedly not being reset when the MAC entity is reset as evidence that "Dr. Kakaes' premise that a MAC reset necessitates resetting *all* counters is wrong." *Id.*

Putting aside Hannibal's mischaracterization of the premise of Dr. Kakaes' opinions, Hannibal is mistaken that the MAC reset in *TS-38.321* does not result in the two preamble counters being reset. As shown below, the MAC reset in *TS-38.321* requires the MAC entity to "stop, if any, ongoing RACH procedure."

5.12 MAC Reset

If a reset of the MAC entity is requested by upper layers, the MAC entity shall:

- 1> initialize *B_i* for each logical channel to zero;
- 1> stop (if running) all timers;
- 1> consider all *timeAlignmentTimers* as expired and perform the corresponding actions in subclause 5.2;
- 1> set the NDIs for all uplink HARQ processes to the value 0;
- 1> stop, if any, ongoing RACH procedure;
- 1> discard explicitly signalled contention-free Random Access Resources, if any;
- 1> flush Msg3 buffer;
- 1> cancel, if any, triggered Scheduling Request procedure;
- 1> cancel, if any, triggered Buffer Status Reporting procedure;
- 1> cancel, if any, triggered Power Headroom Reporting procedure;
- 1> flush the soft buffers for all DL HARQ processes;
- 1> for each DL HARQ process, consider the next received transmission for a TB as the very first transmission;
- 1> release, if any, Temporary C-RNTI;
- 1> reset *BFI_COUNTER*.

TS-38.321, 43-44.

Further, as shown below, when the Random Access (RACH) procedure is initiated, both counters are set to 1:

When the Random Access procedure is initiated on a Serving Cell, the MAC entity shall:

- 1> flush the Msg3 buffer;
- 1> set the *PREAMBLE_TRANSMISSION_COUNTER* to 1;
- 1> set the *PREAMBLE_POWER_RAMPING_COUNTER* to 1;
- 1> set the *PREAMBLE_BACKOFF* to 0 ms;
- 1> if the carrier to use for the Random Access procedure is explicitly signalled:

TS-38.321, 14-15. Thus, according to *TS-38.321*, when the MAC entity is reset, it stops the ongoing RACH procedure, which in turn results in the reset of both preamble counters that must start back at 1 upon initiating a new RACH procedure. Therefore, contrary to Hannibal's argument, the *TS-38.321* reference is entirely consistent with and supports Dr. Kakaes' opinions. Hannibal's merits arguments should therefore be rejected and the Petition should be instituted.

2. Samsung's Expert Properly Explains the Technology and How The Prior Art Renders Obvious the Claims

Hannibal asserts that Petitioner relies heavily on Dr. Kakaes' opinion and faults Dr. Kakaes for explaining the technology and how it applies to the claims. DD Req. 14-15. But as explained above, Hannibal mischaracterizes the Petition and overstates its reliance on expert testimony for limitation [1e]. *Supra* Section IV.F.1. Dr. Kakaes' explanation of how a POSITA would have understood the prior art is the purpose of expert testimony. *Unification Techs. LLC v. Micron Tech. Inc.*, No.

2023-1348, 2024 WL 3738401, at *7 (Fed. Cir. Aug. 9, 2024) (affirming Board’s unpatentability finding where expert’s opinion explained “how an ordinarily skilled artisan would have understood [the prior art’s] description of” the claim term). The Petition simply relies on Dr. Kakaes to explain the background knowledge of a POSITA, and Dr. Kakaes’ testimony is supported by citations to evidence in the required manner. See 37 C.F.R. § 42.65(a); *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 (Aug. 24, 2022) (precedential); *see also iRhythm*, paper 10 at 2-3.

3. The Board Is Best Suited to Handle the Complex Technology Here

The challenged patents present uniquely complicated technology and facts that make the PTAB the best forum to decide their validity. The four patents contain three distinct patent families and relate to complex 5G standards technology, which Hannibal has asserted are standards essential and have broad industry implications that the Board is better equipped to handle. *Tesla, Inc. v. United States*, IPR2025-00341, Paper 12 at 2-3 (Director June 13, 2025) (“complex and diverse litigation proceeding[s]” favor institution because “the Board is better suited” to review such patents); *Tesla v. Intell. Ventures II*, IPR2025-00217, Paper 9 at 2-3 (same).

V. CONCLUSION

Samsung respectfully requests that the Director decline to exercise discretion to deny institution and requests consideration and institution of this Petition.

Date: October 21, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing **Petitioners’
Opposition to Patent Owner’s Request for Discretionary Denial of Institution**
was served on October 21, 2025, via email directed to counsel of record for the
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Patent Owner has consented to electronic service by email.

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