

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner

v.

WILUS INSTITUTE OF STANDARDS AND TECHNOLOGY INC.,
Patent Owner

Case IPR2025-00933
U.S. Patent No. 11,470,595

**PETITIONER'S OPPOSITION TO
PATENT OWNER'S REQUEST FOR DISCRETIONARY DENIAL**

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EXHIBITS

- SAMSUNG-1001 U.S. Patent No. 11,470,595 to Son, et al. (“the ’595 Patent”)
- SAMSUNG-1002 Excerpts from the Prosecution History of the ’595 Patent (“the Prosecution History”)
- SAMSUNG-1003 Declaration and Curriculum Vitae of Dr. R. Michael Buehrer
- SAMSUNG-1004 Complaint, *Wilus Institute of Standards and Technology Inc., v. Samsung Electronics Co., LTD., et al.*, 2-24-cv-00746 (EDTX) filed September 11, 2024
- SAMSUNG-1005 U.S. Patent Publication No. US2016/0330300A1 (“Josiam”)
- SAMSUNG-1006 U.S. Provisional Application No. 62/216,514 (“Josiam Provisional”)
- SAMSUNG-1007 U.S. Patent Publication No. US2016/0174200A1 (“Seok”)
- SAMSUNG-1008 U.S. Patent Publication No. US2016/0330058A1 (“Chen”)
- SAMSUNG-1009 U.S. Patent Publication No. US2017/0070998A1 (“Wu”)
- SAMSUNG-1010 U.S. Provisional Application No. 62/215,054 (“Wu Provisional”)
- SAMSUNG-1011 December 7, 2015 IEEE 802.11ax Draft Specification Framework
- SAMSUNG-1012 IEEE 802.11ac-2013 Specification
- SAMSUNG-1013 Ron Porat et al., *SIG-B Encoding Structure* (Jul. 13, 2015) IEEE 802.11-15/0873
- SAMSUNG-1014 Yujin Noh et al., *Preamble Structure in 802.11ax* (May 2015) IEEE 802.11-15/0575r0
- SAMSUNG-1015 Jiayin Zhang et al., *Preamble Structure for 11ax System* (Jan. 2015) IEEE 802.11-15/0101r1
- SAMSUNG-1016 U.S. Patent Publication No. US2016/0150514A1 (“Kwon”)

- SAMSUNG-1017 Joonsuk Kim et al., *HE-SIG-B Structure* (Jul. 11, 2015) IEEE 802.11-15/0821r2
- SAMSUNG-1018 Hongyuan Zhang et al., *BW Field in HE-MU Format* (Jul. 25, 2016) IEEE 802.11-16/0898
- SAMSUNG-1019 Andreas F. Molisch, *Wireless Communications* (2nd ed. 2011)
- SAMSUNG-1020 Sanghyun Kim et al., *Wider-Bandwidth Operation of IEEE 802.11 for Extremely High Throughput: Challenges and Solutions for Flexible Puncturing*, 8 IEEE Access 213840 (2020)
- SAMSUNG-1021 Coke Morgan Stewart, *Interim Processes for PTAB Workload Management* (Mar. 26, 2025)
- SAMSUNG-1022 Patent Trial and Appeal Board (PTAB) Boardside Chat: Interim Processes Relating to institution in AIA Proceedings (Apr. 17, 2025)
- SAMSUNG-1023 *Fintiv* Stipulation
- SAMSUNG-1024 [Reserved]
- through -1100
- SAMSUNG-1101 Memorandum from Coke Morgan Stewart, Acting Dir., USPTO, to All PTAB Judges (Mar. 26, 2025), <https://www.uspto.gov/sites/default/files/documents/InterimProcesses-PTABWorkloadMgmt-20250326.pdf>
- SAMSUNG-1102 *Taylor*, SAMSUNG SEMICONDUCTOR USA, <https://semiconductor.samsung.com/us/sas/company/taylor/> (last visited May 24, 2025)
- SAMSUNG-1103 *Samsung Electronics Unveils a US\$200bn Investment Plan in the U.S.*, BUS. KOREA (July 25, 2022), <https://www.businesskorea.co.kr/news/articleView.html?idxno=97177>
- SAMSUNG-1104 *Samsung Electronics to Receive up to \$6.4 Billion in Direct Funding under the CHIPS and Science Act*, SAMSUNG SEMICONDUCTOR USA (Apr. 14, 2024),

<https://semiconductor.samsung.com/us/sas/local-news/samsung-electronics-to-receive-up-to-6-4-billion-in-direct-funding-under-the-chips-and-science-act/>

- SAMSUNG-1105 *President Trump Says Samsung Is Planning a Massive Investment in the US, Calls It an Aftermath of His Tariff Policy*, WCCFTECH (May 1, 2025), <https://wccftech.com/president-trump-says-samsung-is-planning-a-massive-investment-in-the-us/>
- SAMSUNG-1106 Order Granting Stay in *Maxeon Solar PTE. LTD. v. Hanwha Solutions Corp.*, No. 2:24-CV-00262-JRG (E.D. Tex. May 5, 2025) (Gilstrap, J.)
- SAMSUNG-1107 Order Granting Stay in *Cellspin Soft, Inc. v. Bytedance Ltd.*, No. 2:23-CV-00496-JRG-RSP (E.D. Tex. Jan. 26, 2025) (Payne, J.)
- SAMSUNG-1108 Motion Success for Stay Pending IPR (Post-Institution) (E.D. Tex.), DOCKETNAVIGATOR (last visited August 27, 2025)
- SAMSUNG-1109 LegalMetric, Individual Judge Report for Judge James Rodney Gilstrap Patent Cases December 2011 to January 2025
- SAMSUNG-1110 Complaint, *Wilus Inst. of Standards and Tech. Inc., v. Samsung Elecs. Co., Ltd., et al.*, No. 2-25-cv-00070 (E.D. Tex filed January 23, 2025)
- SAMSUNG-1111 U.S. District Court for the Eastern District of Texas Calendar Events Set for 6/1/2026 for Judge Rodney Gilstrap
- SAMSUNG-1112 [Reserved]
- SAMSUNG-1113 Wi-Fi 6 Patent Brochure, SISVEL (Mar. 21, 2025), https://www.sisvel.com/xlin7ipl485u/1kNkzUZptdvqKbYiX1DSfi/f518e18ee158be974d3c83f7cd7173be/Wi-Fi_6_Pool_patent_brochure.pdf
- SAMSUNG-1114 [Reserved]
- SAMSUNG-1115 John Son et al., *HE-SIG-B Signaling Discussions* (Mar. 14, 2016) IEEE 802.11-16/0397r2

- SAMSUNG-1116 Osama Aboul-Magd, *TGax March 2016 Meeting Agenda* (Feb. 5, 2016) IEEE 802.11-16/0235r7
- SAMSUNG-1117 Letter from Kyung-rae Cho, Manager, Wilus Inst. of Standards. & Tech., Inc., to PatCom Administrator, IEEE-SA Standards Bd. Pat. Comm. (Dec. 27, 2022)
- SAMSUNG-1118 Yasuhiko Inoue, *IEEE 802.11 TGax March 2016 Macau Meeting Minutes* (Mar. 31, 2016) IEEE 802.11-16/01450r0
- SAMSUNG-1119 Abhishek Patil et al., *Proposed Resolution for CID 193 (BSS Color Disable Indication)* (Nov. 9, 2016) IEEE 802.11-16/1413r8
- SAMSUNG-1120 IEEE-SA Standards Board Bylaws, IEEE-SA Bd. Govs. (Nov. 2019)
- SAMSUNG-1121 IEEE-SA Standards Board Operations Manual, IEEE-SA Standards Bd. (Nov. 2019)
- SAMSUNG-1122 U.S. District Court – Judicial Caseload Profile (E.D. Tex), ADMIN. OFF. U.S. CTS. (June 2025)
- SAMSUNG-1123 Osama Aboul-Magd, *TGax May 2016 Meeting Agenda* (Apr. 5, 2016) IEEE 802.11-16/0512r4
- SAMSUNG-1124 Yasuhiko Inoue, *IEEE 802.11 TGax May 2016 Waikoloa Meeting Minutes* (May 31, 2016) IEEE 802.11-16/0096r20
- SAMSUNG-1125 Osama Aboul-Magd, *TGax July 2016 Meeting Agenda* (Jun. 15, 2016) IEEE 802.11-16/0779r6
- SAMSUNG-1126 Yasuhiko Inoue, *IEEE 802.11 TGax July 2016 San Diego Meeting Minutes* (Aug. 17, 2016) IEEE 802.11-16/0967r00
- SAMSUNG-1127 U.S. Patent Publication No. 2017/0041929 A1 (“Noh”)
- SAMSUNG-1128 U.S. Patent No. 10,219,271 B1 (“Hedayat”)
- SAMSUNG-1129 U.S. Patent Publication No. 2016/0330058 A1 (“Chen”)

I. INTRODUCTION

Samsung Electronics Co., Ltd. (“Samsung”) seeks review of twelve patents asserted against it by Wilus Institute of Standards & Technology Inc. (“Wilus”), including U.S. Pat. No. 11,470,595 (“the ’595 patent”). The factors set forth in Acting Director Stewart’s March 2025 memo and subsequent decisions support institution: Samsung brings a timely challenge to young patents (~3.5 years old on average) that were issued in error and cover a wide range of diverse wireless technologies. Indeed, these challenges will require the trier-of-fact to make detailed factual findings with implications not just for Samsung, but the entire U.S. consumer electronics market.

As background, Wilus is a foreign non-practicing entity, which claims to have developed a wide range of key wireless communication technologies included in the latest generation of Wi-Fi, 802.11ax (or Wi-Fi 6). It has accused Samsung and other consumer electronics makers of allegedly infringing twelve of its patents by implementing the new Wi-Fi 6 standard. Samsung has filed petitions for *inter partes* review of all twelve. The subject of this proceeding, the ’595 patent, is one of them. It relates to discontinuous channel bandwidth allocation in fragmented spectra. But apart from its parent patent, it is of a wholly distinct technical field in Wi-Fi communication than the other ten patents that Wilus has asserted and of which Samsung seeks review.

In fact, *all eight patent families relate to different fields in Wi-Fi communication*, ranging from low-level signal processing and spectral efficiency to higher-level contention resolution and aggregation strategies. Wilus's assertion of a "large number and vast scope of [] patents" directed toward "a diverse range of subject matter" in the parallel district court proceeding is the precise situation for which "the Board is better suited to review" issues of validity, just as was the case in *Tesla, Inc. v. Intellectual Ventures II LLC*, IPR2025-00217, Paper 9 at 2-3 (Stewart Jun. 13, 2025).

In addition, Wi-Fi 6 is a new technology, and consequently, Wilus's patents are also young: less than three years old in the instant proceeding and *less than three and a half years old on average* across the twelve challenged patents. Accordingly, Wilus has not yet developed settled expectations in its recently-issued patents. *See Cambridge Indus. USA, Inc. v. Applied Optoelectronics, Inc.*, IPR2025-00433, Paper 12 at 2-3 (Stewart June 26, 2025) (finding that patents issued in 2019 and 2020, even earlier than the 2022 issue date of the '595 patent, have "not been in force for a significant period of time" and thus Patent Owner's settled expectations "[did] not favor discretionary denial").

Further, as discussed in more detail below, Examiner error occurred in the Office's issuance of the Wilus patents.¹ For the '595 patent, the Examiner overlooked highly relevant disclosure from the Noh reference, failing to recognize that Noh provided the negative limitation added by the applicant to overcome the Examiner's rejection. The Examiner was clearly aware of Noh, having previously relied on Noh in rejecting *every* dependent claim. The Examiner appears to have missed the connection between the "HE-SIG-B content channel" feature required by all of the '595 patent's dependent claims and the negative limitation added by the applicant, which excluded the indication of a "C26 field" in 20 MHz wireless packets. But it is the inclusion of the HE-SIG-B content channel that gives rise to the need for the C26 field in the manner claimed.

This oversight led the Examiner to erroneously conclude that the Hedayat reference he initially relied upon taught away from the negative limitation. But had

¹ See also IPR2025-00935, Paper 11 at 16-24 addressing Examiner error in issuing asserted U.S. Pat. No. 11,129,163; IPR2025-00936, Paper 11 at 16-24 addressing Examiner error in issuing asserted U.S. Pat. No. 11,700,597; and IPR2025-00934, Paper 10 at 17-33 addressing Examiner error in issuing asserted U.S. Pat. No. 11,159,210.

the Examiner applied the *same* prior art combination he used to reject the dependent claims to the independent claims (i.e., Chen-Hedayat-Noh), the rationale for limiting the C26 field to 80 MHz or larger packets would have been apparent. The Examiner's failure to recognize Noh's clear teachings, relevant to the allegedly allowable subject matter of the claims resulted in clear material error. Use of PTAB resources is thus appropriate to correct errors made during examination of the Wilus patents.

To sum, at least the three reasons discussed above (and reproduced below) justify the use of PTAB resources in the dispute between Wilus and Samsung:

- 1) Large number and vast scope of asserted patents;
- 2) Early challenges to patents where expectations have not been settled;
and
- 3) Correction of errors that occurred during examination.

Each of these justifications has been identified by the Acting Director as warranting use of PTAB resources. And each is applicable to the Wilus/Samsung dispute for reasons that are similar to prior cases where the Acting Director referred petitions to the Board.

Although each of these factors alone justifies referral of the present Petition, taken collectively, these factors strongly favor institution and override any concern over parallel proceeding overlap. This is particularly true here where Samsung has

eliminated potential overlap by offering a sweeping *Sotera*-plus stipulation that includes foregoing the use of the asserted art in combination with system art (or any prior art) in accordance with the Acting Director's *Motorola* decision. And, as discussed below, the median time-to-trial statistics suggest trial after the FWD deadline for four of the asserted patents and within about six weeks for the other eight patents. With the statistics suggesting such a small gap (or none), and with Samsung's broad stipulation, the justifications identified throughout "tip the balance against discretionary denial." *Shenzhen Tuozhu Tech. Co., Ltd. v. Stratasys, Inc.*, IPR2025-00438, Paper 10 at 3 (Stewart July 17, 2025) (declining to discretionarily deny based on *Fintiv* where the patent owner did not have sufficient settled expectations and the patent owner asserted a vast scope of diverse patents).

Finally, the merits of the Petition are strong and well-supported by competent expert testimony and contemporaneous third-party evidence, including dozens of patents and printed publications that corroborate the obviousness of the claimed subject matter. Tellingly, Wilus identified ***no substantive deficiency*** in the merits of the Petition's prior art challenges. This is unsurprising in light of plentiful evidence cited in the Petition that well establishes how the claims are directed to features known in the art or disclosed by others. Not only Samsung, but the public broadly, share an interest in ensuring that all claims of the '595 patent receive proper scrutiny from

the Board—particularly as Wilus continues to mount an aggressive litigation campaign against multiple defendants for their use of the ubiquitous Wi-Fi communication standard that most Americans use every day.

Thus, under these facts and given the present record, Samsung respectfully requests that the Director decline Wilus’s request to discretionarily deny institution of this IPR and refer Samsung’s Petition for a determination on the merits.

II. THE PETITION SHOULD NOT BE DENIED ON DISCRETIONARY GROUNDS

Wilus seeks to shield the ’595 patent from an adjudication on the merits by requesting discretionary denial of this IPR proceeding. Wilus purports that an assessment of the *Fintiv* factors and two additional considerations recited in Acting Director Stewart’s Memorandum of March 26, 2025 counsels in favor of discretionary denial. Paper 8 at 8-28. Contrary to Wilus’s contentions, however, and as explained below, a holistic evaluation of the *Fintiv* factors and the additional considerations in the Stewart Memorandum and subsequent decisions confirm that discretionary denial of the Petition is not warranted.

A. The Complexity of the Litigation and Diverse Technology of the Asserted Patents Favors Institution

Wilus’s assertion of a “large number and vast scope of [] patents” directed toward “a diverse range of subject matter” in the parallel district court proceeding is

the precise situation for which “the Board is better suited to review” issues of validity, just as was the case in *Tesla*, Paper 9 at 2-3. Here, the ’595 patent is but one of twelve patents spanning eight different families that Wilus has asserted against Samsung in District Court.² *Cf. Shenzhen*, Paper 10 at 3 (“Petitioner explains that the parallel district court proceeding involves ***nine different patents spanning six families*** that involve a diverse range of subject matter. The large number and vast scope of the patents asserted in the district court litigation weighs against discretionary denial[]” (emphasis added)).

Samsung asks the Office to apply much-needed scrutiny to each of the asserted patents, spanning a broad range of wireless technologies, including:

² Wilus’s infringement claims against Samsung have been consolidated into *Wilus Inst. of Standards & Tech. v. HP Inc.*, No. 2:24-cv-00752-JRG (E.D. Tex) for US Patent Nos. 10,313,077, 10,687,281, 11,470,595, 11,159,210, 11,129,163, 11,700,597, 11,116,035, and 11,516,879, and have been consolidated into *Wilus Inst. of Standards & Tech. v. HP Inc.*, No. 2:25-cv-00069-JRG (E.D. Tex.) for U.S. Patent Nos. 10,911,186, 11,716,171, 11,664,926, and 12,004,262. Even considering the district court proceedings separately, the district court action asserting the ’595 patent involves eight patents spanning five distinct families.

- enhanced distributed channel access prioritization (U.S. Patent Nos. 11,116,035 and 11,516,879);
- legacy and modern device coexistence via physical layer frame designs (U.S. Patent No. 10,313,077);
- overlapping basic service set interference management through BSS coloring (U.S. Patent Nos. 11,129,163 and 11,700,597);
- multi-user uplink transmission synchronization through block acknowledgments (U.S. Patent Nos. 11,716,171 and 10,911,186);
- random access mechanisms for unassociated devices using trigger frames (U.S. Patent No. 12,004,262);
- signaling user-specific fields and spatial stream configurations in multi-user MIMO transmissions (U.S. Patent No. 11,159,210);
- discontinuous channel bandwidth allocation in fragmented spectra (U.S. Patent Nos. 10,687,281 and 11,470,595); and
- aggregated MAC protocol data units with multi-traffic ID block aggregation (U.S. Patent No. 11,664,926).

Although these patents relate to Wi-Fi, as illustrated above, the subject matter of the challenged patents covers a broad array of wireless communication technologies that range from low-level signal processing and spectral efficiency to higher-

level contention resolution and aggregation strategies. Indeed, the diverse nature of the asserted patents is illustrated by the lack of overlap in prior art applied against the different families of patents. Such diverse technology and complex litigation strongly favors institution. *Tesla*, Paper 9 at 2-3. As was the case in *Tesla* and *Shenzhen*, “the Board is better suited to review a large number of patents involving diverse subject matter.” *Id.*; *accord Shenzhen*, Paper 10 at 3.

Not only is the subject matter of Wilus’s asserted patents technically disparate, but given the lengthy priority claims of Wilus’s patents and the race-to-the-patent-office nature of standards development in the AIA-era, many of the grounds presented in Samsung’s petitions will require the trier of fact to make complex factual findings as to the effective filing date of both the asserted art and the challenged patents. *See, e.g.*, Pet. 2 (involving a priority analysis of the asserted art); IPR2025-01043, Paper 2 at 2-4 (same); IPR2025-00935, Paper 2 at 2-3 (same); IPR2025-00936, Paper 2 at 2-3 (same); IPR2025-01110, Paper 2 at 5-12 (presenting intervening art grounds challenging the priority date of the challenged patent); IPR2025-01111, Paper 2 at 6-14 (same); IPR2025-00988, Paper 2 at 1-3, 6-8 (presenting grounds which involve an analysis of the priority date of both the challenged patent and the asserted art).

These kinds of factual determinations are precisely where the Board's combination of technical acumen and patent law expertise would prove especially valuable. While such an analysis would be standard for the Board, the complexity of the priority issues would be unfairly prejudicial to Samsung in a jury trial and may result in Wilus being able to assert rights in technology that others disclosed or patented first, including Samsung itself in some cases. *See, e.g.*, IPR2025-00988, Paper 2 at 1-3, 6-8 (demonstrating that the technology claimed by the '281 patent was included in provisional patent applications filed by Samsung *months before* the subject matter was disclosed in Wilus's provisional applications). Interests of efficiency, justice, and the promotion of a strong patent system favor Board review of Wilus's patents, including referring the present petition for adjudication on the merits.

B. Wilus Has Little to No Settled Expectations in the '595 Patent or the Other Patents at Issue

1. The '595 patent is Young, Having Been in Force Less than Three Years

The '595 patent issued on October 11, 2022, and has thus been in force for *less than three years*. Because the '595 patent has not been in force “for a significant period of time,” Wilus “has not developed strong settled expectations that favor discretionary denial.” *Cambridge Indus.*, Paper 12 at 2-3 (finding that patents issued in 2019 and 2020 have “not been in force for a significant period of time”

and thus Patent Owner’s settled expectations “[did] not favor discretionary denial”).

Moreover, Wilus is still pursuing a continuation in this family (*see* U.S. Patent App. No. 18/918,105), further confirming that any rights related to these patents are not settled. With active prosecution, the public would benefit from Board review since a substantive review of the petition’s grounds would help guide examination of the pending continuation and help ensure the examiner reaches the correct patentability decision in the continuation application.

2. *Wilus’s Allegations of Licensing and Notice are Misleading and Fail to Demonstrate Any Settled Expectations*

Wilus’s arguments with respect to purported “industry-wide licensing” and “actual notice” (*see* Paper 8 at 26–28) are inapposite where, as is the case here, the patents at issue have been in force for a short period of time. The *Dabico* case cited by Wilus presupposes that settled expectations had been developed over the length of time in which the patent at issue has been in force. *Dabico Airport Sols. Inc. v. AXA Power ApS*, IPR2025-00408, Paper 21 at 2-3 (Stewart June 18, 2025) (“[T]he challenged patent has been in force almost eight years, creating settled expectations. . . . There may be persuasive reasons why the Office should review the challenged patent, but, in the absence of any such information, the Office is disinclined

to disturb the settled expectations of Patent Owner in this instance.” (emphasis added)). Wilus’s recently-issued patents lack the same type of settled expectations.

Although evidence that a challenged patent has never been “commercialized, asserted, marked, licensed, or otherwise applied” may “weigh *against* Patent Owner’s claim of strong settled expectations,” *Shenzhen*, Paper 10 at 3 (quoting *Intel Corp v. Proxense LLC*, IPR2025-00327, Paper 12 at 2–3 (Stewart June 26, 2025)), Wilus cites no authority for its position that such evidence somehow accelerates the settling of expectations in recently-issued patents. The same is true with respect to a petitioner’s notice of the challenged patent. *Dabico* confirms that settled expectations are not derived from “actual notice of a patent or possible infringement,” but rather “the longer the patent has been in force, the more settled expectations should be.” *Dabico*, Paper 21 at 2-3. This aligns with the Office’s goal to incentivize early challenges to a patent’s validity, *id.*, as Samsung does here and in the related petitions.

Regardless, Wilus’s arguments related to settled expectations are meritless. For example, Wilus points to the “Sisvel Wi-Fi 6 Patent Pool” as evidence of “industry-wide licensing.” Paper 8 at 26 (citing WILUS-2009). But that patent pool contains over 2,000 patents from various patent holders, including Huawei, MediaTek, Panasonic, and Phillips. *See generally* SAMSUNG-1113. It would be unreasonable for Wilus or the public to draw conclusions as to the validity of the ’595

patent based on its licensing alongside thousands of other patents—it’s far too attenuated. As recent USPTO decisions make clear, settled expectations must be based on specific, direct evidence such as patent age and public awareness—**not** generalized licensing behavior. *See, e.g., iRhythm Techs., Inc. v. Welch Allyn, Inc.*, IPR2025-00363, Paper 10 at 3 (Stewart June 6, 2025); *Cambridge Indus.*, Paper 12 at 2–3. Companies often enter into such agreements for pragmatic reasons—avoiding litigation, ensuring access to standardized technologies, and reducing transaction costs—**not because** they affirm the validity of any specific patent in the pool.

Regarding Samsung’s alleged “actual notice” of the ’595 patent, Wilus points to an April 2022 demand letter (WILUS-2010), a January 2023 demand letter (WILUS-2011), and an October 2021 European search report from the prosecution of a Samsung patent (WILUS-2013). Paper 8 at 27-28. This time frame is significantly shorter than other decisions where the Office has found such notice relevant for purposes of determining settled expectations. *See, e.g., iRhythm Techs.*, Paper 10 at 3 (finding that Petitioner’s knowledge of a 13-year-old patent for over twelve years weighed in favor of Patent Owner’s settled expectations). Moreover, Wilus’s April 2022 demand letter does not even list the ’595 patent (half of the patents Wilus asserted against Samsung are absent from this matter) among hundreds of patents, so Wilus failed to give Samsung sufficient notice of which patents Wilus thought Samsung infringed. *See* WILUS-2010 (not including U.S. Patent

Nos. 11,716,171, 11,516,879, 11,700,597, 11,664,926, 12,004,262). While Wilus's January 2023 demand letter did list the '595 patent, it still did not list U.S. Patent Nos. 11,716,171, 11,516,879, 11,700,597, 11,664,926, 12,004,262. WILUS-2011. Surely, Samsung should not have been expected to challenge hundreds of patents simply because Sisvel sent Samsung a letter listing them. Collectively adjudicating the validity of the patents at issue, including a parent of the '595 patent, ultimately conserves the resources of the parties, the judiciary, and the Board. *See Embody, Inc. v. Lifenet Health*, IPR2025-00248, Paper 13 at 2-3 (Stewart June 26, 2025).

3. *Wilus's Misconduct in Concealing its Potentially Essential Patent Claims During Participation in the Wi-Fi 6 Standard Setting Process Should Nullify Any Claims to Settled Expectations*

Further, Wilus undermined any settled expectations through its failure to disclose during the IEEE standard-setting process. Far from fostering transparency, Wilus concealed its patent rights during the IEEE 802.11ax standardization process, violating disclosure obligations and misleading implementers.

For example, Wilus' named inventors were present during IEEE Task Group ax (TGax) discussions (*see* SAMSUNG-1115) and were aware of the priority applications to the '595 patent, KR 10-2015-0186871 filed on December 24, 2015, KR 10-2016-0004471 filed on January 13, 2016, KR 10-2016-0005835 filed on January 18, 2016, KR 10-2016-0026683 filed on March 4, 2016, and KR 10-2016-0030006 filed on March 13, 2016 (SAMSUNG-1001, cover). On March 14, 2016, after the

filing of each of these Korean priority applications, the Working Group Chair expressly reminded participants of their duty to disclose relevant IP. *See* SAMSUNG-1116, 7-10; SAMSUNG-1118, 2. Despite this, Wilus failed to disclose any patent rights. SAMSUNG-1118, 2.

Wilus continued to file additional priority applications after this date, including KR 10-2016-0059182 (filed May 14, 2016), KR 10-2016-0062422 (filed May 20, 2016), and KR 10-2016-0083756 (filed July 1, 2016). Subsequent TGax sessions in May and July 2016 reiterated IEEE’s IPR policy and provided further opportunities for disclosure. *See* SAMSUNG-1123, 7-10; SAMSUNG-1124, 2; SAMSUNG-1125, 7-10; SAMSUNG-1126, 2. Yet Wilus remained silent, failing to disclose even as its portfolio expanded. SAMSUNG-1124, 2; SAMSUNG-1126, 2.

The IEEE-SA Patent Policy and associated guidance oblige participants to disclose issued patents and **pending** patent applications. SAMSUNG-1120 § 6 (“‘Patent claim(s)’ shall mean one or more claims in issued patent(s) or **pending** patent application(s).”). The policy strongly encourages early identification of such claims and instructs participants to disclose any patent claim(s) or patent application claim(s) they are personally aware of that may be essential to the standard—even if those claims are not yet granted. *Id.*

The March, May, and July 2016 meeting slides and instructions explicitly provided participants an opportunity to disclose “patent claim(s)/patent application

claim(s)” that may be essential. *See* SAMSUNG-1116, 7-10; SAMSUNG-1123, 7-10; SAMSUNG-1125, 7-10. Wilus’s failure to disclose its pending Korean applications that provide the alleged priority claim for the ’595 patent violated this expectation of transparency.

Moreover, Wilus had multiple later opportunities to disclose its patent rights as the applications matured. The IEEE-SA Patent Policy does not limit disclosure obligations to a single point in time. Under §6.3.4 of the Standards Board Operations Manual, multiple Letters of Assurance may be submitted over time, and participants may provide updated assurances as claims evolve. SAMSUNG-1121, § 6.3.4. Wilus could have disclosed its rights when the Korean applications were published or issued, when the ’595 patent was filed (May 6, 2020), when its application published (August 20, 2020), or during subsequent IEEE meetings. Its continued silence during these later stages further undermines any claim of good faith.

Instead, Wilus delayed its Letter of Assurance until December 2022, nearly seven years later—well after the standard was adopted and widely implemented. *See* SAMSUNG-1117. This delay deprived implementers of the opportunity to assess the patent’s relevance or validity during the critical development window.

The IEEE-SA’s policies and guidance documents—including §6.3.4 of the Standards Board Operations Manual—make clear that multiple Letters of Assurance may be submitted over time, and that early disclosure of potential claims is

essential to preserving transparency and trust in the standard-setting process. SAMSUNG-1121 § 6.3.4. Thus, **industry participants reasonably expected that Wilus had no relevant IP**, and Wilus’s silence created a false sense of security—**not** a “settled expectation” of validity, but instead a **settled expectation of non-assertion**.

At bottom, “early challenges to the patents tip the balance against discretionary denial.” *Zhuhai CosMX Battery Co., Ltd. v. Ningde Amperex Technology Ltd.*, IPR2025-00385, Paper 9 at 3 (Stewart July 2, 2025). Here, Samsung brings a timely challenge to young patents—less than three years old in the instant proceeding and *less than three and a half years old on average* across the twelve proceedings challenging Wilus’s asserted patents. This short period of time is insufficient to afford Wilus settled expectations in the patents at issue.

C. Examiner Error in Issuing Wilus’s Patents Warrants Board Review

Several errors occurred during examination of the Wilus patents challenged by Samsung, and Board resources are well-spent to correct those errors.³ *See Microsoft Corp. v. Partec Cluster Competence Cent. GmbH*, IPR2025-00318, Paper 9

³ *See also* IPR2025-00935, Paper 11 at 16-24 addressing Examiner error in issuing asserted U.S. Pat. No. 11,129,163; IPR2025-00936, Paper 11 at 16-24 addressing

at 3 (Stewart June 12, 2025); *Padagis US LLC v. Neurelis, Inc.*, IPR2025-00464, Paper 12 at 3 (Stewart July 16, 2025). Here, the examiner made an erroneous finding during the prosecution of the '595 patent that warrants Board review to correct.

As background, the Examiner initially rejected the independent claims over Chen (SAMSUNG-1129) in combination with Hedayat (SAMSUNG-1128). SAMSUNG-1002, 67–72. In response, the applicant amended the independent claims as shown below:

wherein ~~when the received wireless packet is transmitted in a total bandwidth of 80 MHz or more,~~ the information of the unassigned resource unit includes information of a C26 field indicating whether a user is allocated to a center 26-tone resource unit of 80 MHz upon the bandwidth related to a transmission of the received wireless packet indicated by the bandwidth field being 80 MH or more, not 20 MHz or 40 MHz.

SAMSUNG-1002, 46 (highlighted). Notably, this amendment added a negative limitation, which limited the indication of an unassigned center 26-tone resource unit using a “C26 field” to wireless packets (i.e., PPDUs) having bandwidths of 80 MHz or greater and expressly excluded 20 MHz and 40 MHz bandwidths. *Id.*, 46, 48. In the remarks accompanying the amendment, the applicant argued that the

Examiner error in issuing asserted U.S. Pat. No. 11,700,597; and IPR2025-00934, Paper 10 at 17-33 addressing Examiner error in issuing asserted U.S. Pat. No. 11,159,210.

Chen-Hedayat combination did not render obvious the amended claims because the access point taught by Hedayat “indicates the middle 26-ton [sic] [resource unit] using the same bit regardless of bandwidth.” *Id.*, 54. In response, the Examiner allowed the claims, offering the following reasons for allowance:

50), while for example the 40Mhz block does not have the center RU. The independent claims have been specifically amended to require that the claimed process of indication and allocation only be performed on 80Mhz or greater PPDUs, and not the 20Mhz PPDU indicated by Hedayat. The Examiner does not believe one of ordinary skill in the art would have found it obvious to modify Hedayat to exclude performing the claimed process on 20Mhz PPDUs, as Hedayat teaches directly away from this, and would result in an inferior system. The Examiner believes that the cited prior art, Chen (US 20160330058 A1) in view of Hedayat (US 10219271 B1), is the best available, and believes that one of ordinary skill in the art would not have found it obvious to combine with another reference(s) such that the independent claims would be taught. Therefore claims 19 - 30 are allowed.

SAMSUNG-1002, 27 (emphasis added).

The Examiner’s reasons for allowance are problematic, thus resulting in material error, for at least two reasons. First, despite the Examiner’s statement that Chen and Hedayat are the best available art, Noh (U.S. Patent Publication No. 2017/0041929 A1) (SAMSUNG-1127), which the Examiner earlier relied on to reject dependent claims is just as good if not better than Chen and Hedayat. Second,

Noh, which, again, the Examiner overlooked in allowing the claims, further provides motivation for modifying Hedayat to exclude the 20Mhz PPDU from the claimed process of indication and allocation.

1. The Examiner was aware of Noh, which was earlier applied in a rejection of dependent claims

During prosecution, the Examiner relied on Noh (SAMSUNG-1127) in rejecting a number of then-pending dependent claims directed to HE-SIG-B content channels. SAMSUNG-1002, 72–77.

8. Claims 20 – 24, and 26 - 30 are rejected under 35 U.S.C. 103 as being unpatentable over Chen (US 20160330058 A1) in view of Hedayat (US 10219271 B1) and in further view of Noh (US 20170041929 A1)

Regarding claims 20 and 26, Chen and Hedayat teach the subject matter of the parent claim(s), as noted above. Chen does not explicitly disclose the limitations of claims 20 and 26.

Noh discloses subject matter relating to HEW transmissions. Specifically, Noh discloses: wherein the HE-SIG-B field comprises HE-SIG-B content channel 1 and HE-SIG-B content channel 2 in units of 20 MHz (*HE-SIG-B content channels 1 and 2 in 20Mhz*; see paragraph [0111] and Fig. 10), and

SAMSUNG-1002, 72 (excerpt). In response to these rejections, the applicant offered no substantive arguments as to Noh’s teachings, stating only that the rejections of

those claims should be withdrawn in view of the applicant's amendments and arguments relating to the independent claims. *Id.*, 55. Noh's teachings and relevance, as it relates to the '595 patent, was unchallenged.

2. The Examiner failed to acknowledge or recognize Noh among the "best available" art

After the Examiner issued an Office Action that included rejections of dependent claims that applied Chen, in combination with Hedayat and Noh, the applicant amended the claims to add the negative limitation discussed above. SAM-SUNG-1002, 46. The Examiner then allowed the case, alleging that "the cited prior art, Chen (US 20160330058 A1) in view of Hedayat (US 10219271 B1)[☐] is the best available." *Id.*, 27. In doing so, the Examiner failed to recognize and acknowledge Noh among the best available art, which, given Noh's teachings relevant to the '595 patent and its claims, resulted in material error.

At a high level, Noh is directed to a method for indicating resource unit assignment, including a center 26-tone resource unit, ***based on the channel bandwidth:***

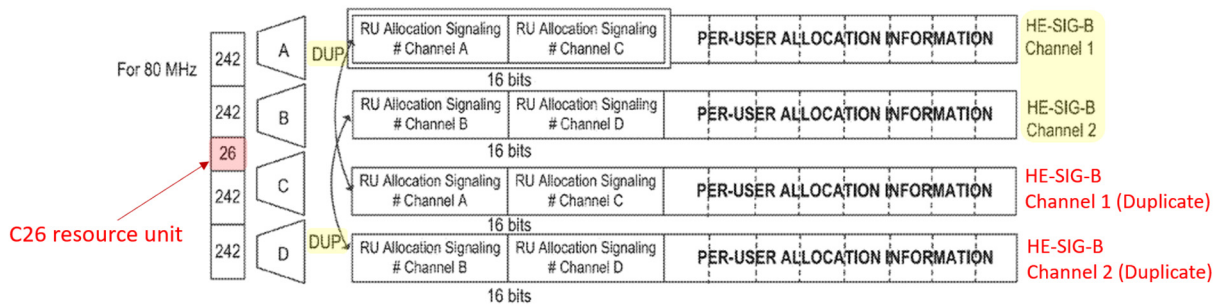
(57)

ABSTRACT

In wireless communications for multi-users, an access point may generate a first frame for allocating resources to a plurality of stations. The first frame may contain an indication as to whether a station(s) is allocated at least one of a set of resource units (RUs) of a plurality of RUs, such as a center 26-tone RU. The set of resource units may be based on a channel bandwidth of the wireless communications. The indication may be contained in a common block field of signal fields, such as a common block field of high efficiency (HE) signal content channel(s) of an HE signal field. The station(s) may receive the first frame and determine whether the one of the set of RUs is allocated. The station(s) may transmit a second frame to the access point based on resource allocation information in the first frame. Other methods, apparatus, and computer-readable media are also disclosed.

SAMSUNG-1127, Abstract

Noh describes a key feature absent from Hedayat and Chen: HE-SIG-B content channels. SAMSUNG-1127, [0111], Figs. 10-11D. This feature, which was adopted into the draft IEEE 802.11ax standard before the '595 patent's Critical Date (SAMSUNG-1011, 8–9), allows resource allocation information to be split into two groups, the first carrying information for odd numbered channels and the second carrying information for even numbered channels. *Id.*



SAMSUNG-1127, Fig. 11C

The HE-SIG-B content channel feature is at the heart of the '595 patent's claims—in fact, it is recited in every dependent claim. SAMSUNG-1001, 52:50–54:58. The Examiner initially recognized this, relying on Noh to reject the dependent claims in an earlier Office Action. SAMSUNG-1002, 72–78. But, in allowing the claims, the Examiner apparently failed to consider whether Noh taught the negative limitation the applicant added by amendment, which led to allowance. Indeed, there is no evidence that the Examiner searched or reconsidered Noh after the applicant's amendment. *Id.*, 36–42. While the independent claims do not explicitly recite limitations requiring HE-SIG-B content channels like the dependent claims, it is this feature that gives rise to the need for a special field to signal the allocation of the center 26-tone resource unit in 80 MHz and larger packets as discussed below. Given that the Examiner relied on Noh as teaching *every* dependent claim, it is curious that the Examiner did not consider it as among the “best available” art with respect to the

independent claims. And ultimately, the Examiner overlooking Noh's teachings resulted in material error in allowing the claims of the '595 patent.

3. The Examiner overlooked prior art of record (Noh) that provided motivation to modify Hedayat to exclude performing the claimed process on 20Mhz PPDU's

In the reasons for allowance, the Examiner indicated that he did "not believe that one of ordinary skill in the art would have found it obvious to modify Hedayat to exclude performing the claimed process on 20Mhz PPDU's, as Hedayat teaches directly away from this, and would result in an inferior system." SAMSUNG-1002, 27. However, Noh provides precisely the requisite motivation that a POSITA would have needed to modify Hedayat as claimed. In particular, Noh describes the addition of the HE-SIG-B content channel feature that provides motivation for including a C26 field in only 80 MHz or larger packets, as recited in claim 1 (or in the applicant's claim amendments).

- (i) Hedayat does not teach away

Preliminarily, contrary to the Examiner's finding, Hedayat does not "criticize, discredit, or [] discourage investigation into the claimed invention," including the claimed "C26 field." *Meiresonne v. Google, Inc.*, 849 F.3d 1379, 1382 (Fed. Cir. 2017) (internal quotations omitted). Rather, the portion of Hedayat's disclosure that the Examiner cites is directed to a *different* field. Specifically, Hedayat provides a method for indicating resource unit assignment information ***per 20 MHz channel***:

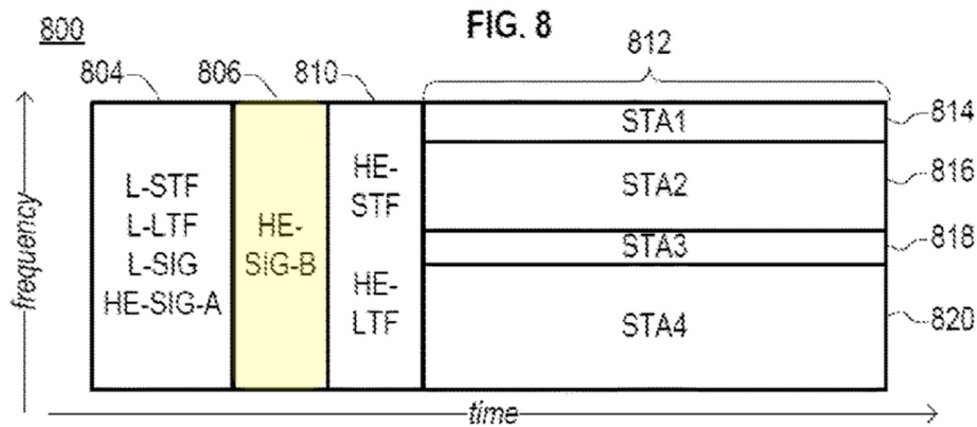
FIG. 11A is a flow chart of a process 1100 for a hierarchical encoding of a bandwidth allocation, according to an embodiment. The process 1100 produces a variable length sequence of bits (i.e., a bit string) that conveys which RUs of a 20 MHz bandwidth are allocated to respective stations. In an embodiment, the variable-length bit-stream is incorporated into a SIG-B field (such as an HE-SIG-B field) of a PPDU to be transmitted.

SAMSUNG-1128, 18:29–37. For packets larger than 20 MHz, Hedayat explains that this process is repeated:

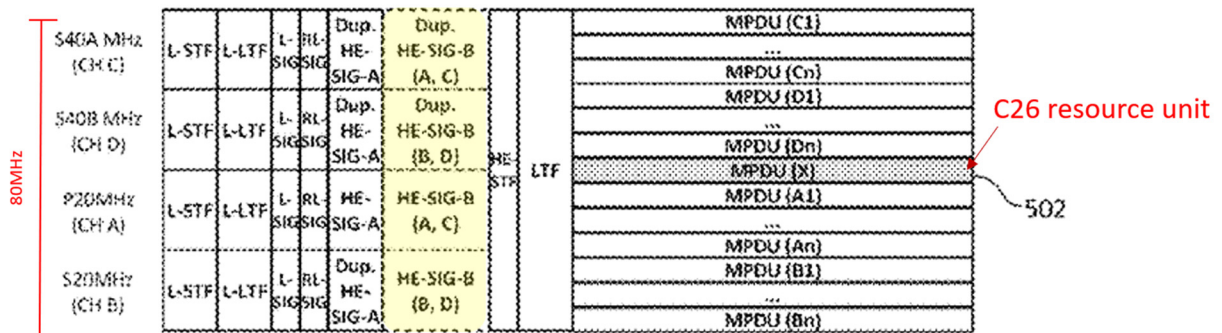
The process 1100 illustrated in FIG. 11 encodes allocation information for a 20 MHz bandwidth at a granularity of 2 MHz, but embodiments are not limited thereto.

For example, in an embodiment, the process 1100 may be adapted to encode allocation information for a 40 MHz bandwidth at a granularity of 2 MHz by performing, in sequence: i) S1102, ii) S1104 to S1108 once for each of upper and lower 20 MHz bandwidths of the 40 MHz bandwidth, iii) S1110 to S1128 once for each of the 20 MHz bandwidths, and iv) S1130 to S1148 once for each of the 20 MHz bandwidths.

SAMSUNG-1128, 20:52–62. Hedayat's system simply repeats the process because Hedayat's system (like Chen's) transmits all HE-SIG-B information on every 20 MHz channel in 20-160 MHz packets. SAMSUNG-1028, 15:1-8, Fig. 8.



SAMSUNG-1128, Fig. 8. But the '595 patent's claims and Noh are directed to a different field arising from the inclusion of HE-SIG-B content channels, in which the center 26-tone resource unit in 80 MHz or larger packets falls between content channels.



SAMSUNG-1001, Fig. 38A (annotated)

- (ii) Noh discloses the motivation the Examiner stated was lacking in the prior art

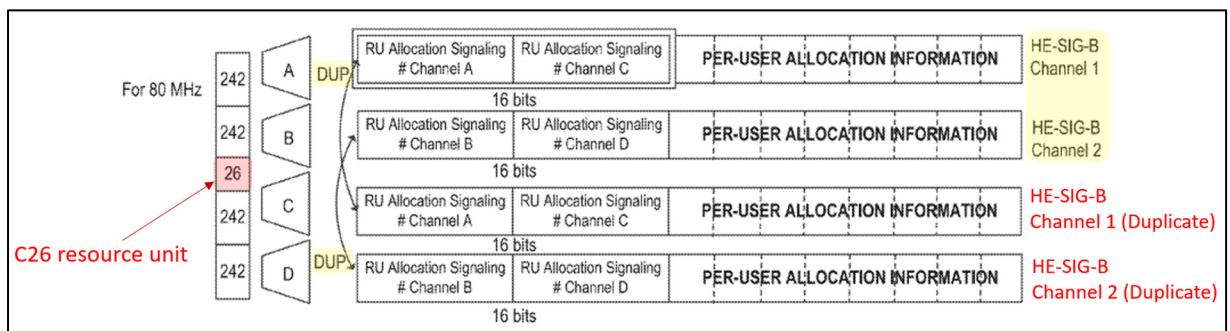
Like the '595 patent, Noh explains that a “special” 26-tone resource unit exists “on the boundary of the transmission subbands [i.e., content channels] of the SIG-

B” field in 80 and 160 MHz PPDUs. SAMSUNG-1127, [0121]-[0124], Fig. 14; *see* SAMSUNG-1001, 45:12-37.

[0122] In one or more aspects, resource allocation of the special 26 RU may be signaled in the HE-SIG-B field. Methods are provided for conveying control information for the special 26 RU in 80 MHz and 160 MHz OFDMA data transmission. The conveying of such control information may facilitate reduction in signaling overhead.

[0124] With reference back to FIG. 14, the two transmission subbands of the SIG-B field are denoted as 1 and 2. In an aspect, because the special 26 RU exist on the boundary of the transmission subbands of the SIG-B field, the special 26 RU may be allowed to be signaled in one or both of the SIG-B coding blocks.

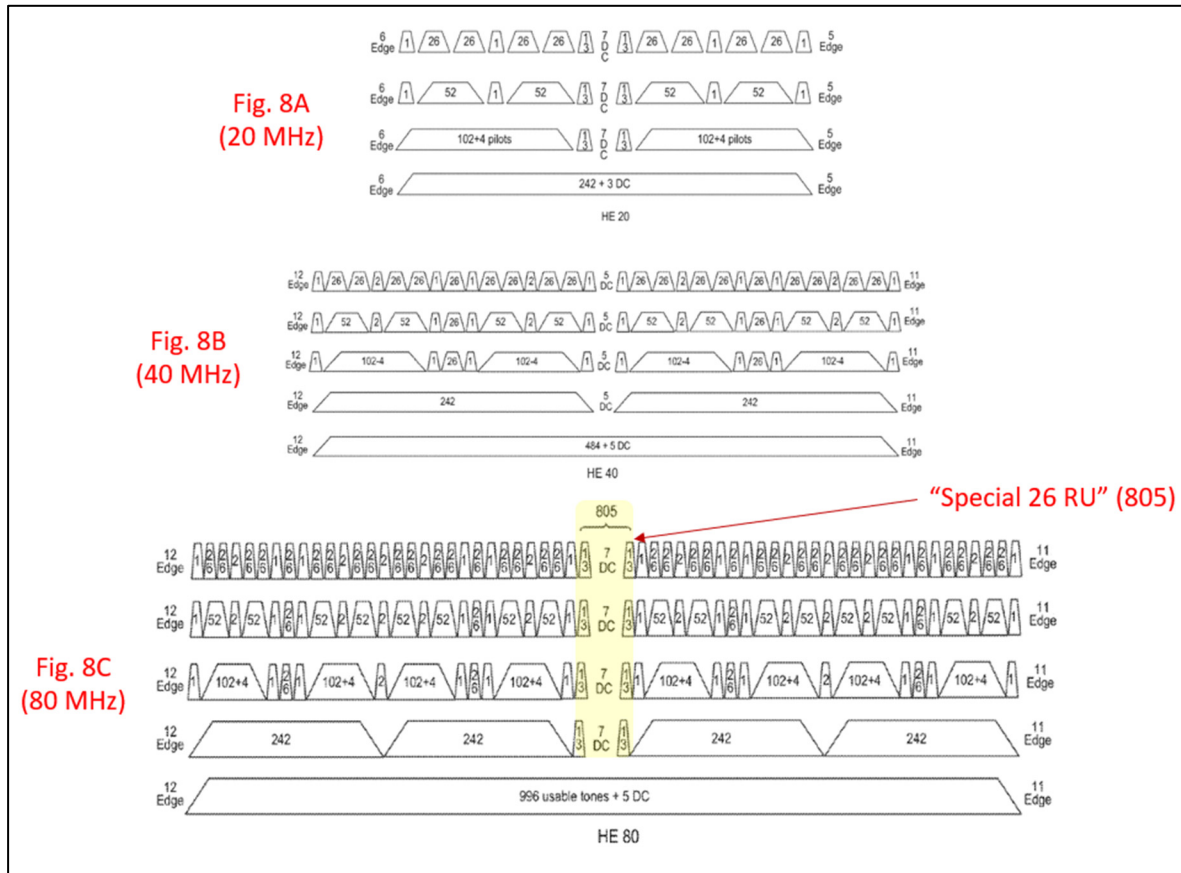
SAMSUNG-1127, [0122], [0124]



SAMSUNG-1127, Fig. 11C

Noh discloses methods for signaling this “special” 26-tone resource unit, including through “an indication signal whose value is indicative of whether the special 26 RU is allocated.” SAMSUNG-1127, [0138]. Noh provides that this indication

signal may be included in 80 MHz or 160 MHz packets but does not disclose including this signal in 20 or 40 MHz packets. *See id.*, [0138]-[0140]. This is because the “special” case of a 26-tone resource unit that falls outside of the HE-SIG-B content channel scheme is not present in 20 and 40 MHz packets. *See* Pet. 49-50, 72 (quoting SAMSUNG-1003, [109], [199]). *Compare* SAMSUNG-1127, Fig. 8C (depicting an 80 MHz PPDU with a special 26 RU (805) in the center of the bandwidth), *with id.*, Figs. 8A-8B (depicting 20 and 40 MHz PPDUs with no special 26 RU).



SAMSUNG-1127, Figs. 8A-C

It is *this* “indication signal” for the “special” 26-tone resource unit that is analogous to the claimed “C26 field.” The remaining resource units are indicated on a per 20 MHz channel basis, just like Hedayat and Chen. SAMSUNG-1027, [0115]-[0116]; *see id.*, Fig. 11C (reproduced above).

In essence, Noh’s method could be viewed as encapsulating the per 20 MHz indication method described by Hedayat and Chen. There is nothing in Hedayat that counsels against this approach. Indeed, the petition’s Chen-Wu ground demonstrates that a POSITA would have been motivated to combine and had a reasonable expectation of success in combining a per 20 MHz resource unit allocation scheme like Chen and Hedayat’s with the HE-SIG-B content channel scheme adopted into the 802.11ax draft standard. *See* Pet. 46–52.

By overlooking Noh—and the strength of its disclosure—when allowing the claims, the Examiner missed the explicit motivation in the prior art to include a “C26” field in only 80 and 160 MHz wireless packets. Given the Examiner’s previous reliance on—and presumably, familiarity with—Noh, the Examiner should have appreciated that Noh discloses this precise feature that the Examiner found was absent from Chen and Hedayat.

Moreover, the special handling required for the center 26 resource unit in 80 MHz or larger packets was well known at the time of the ’595 patent. For example, the December 2015 draft 802.11ax standard stated that “[s]ignaling for the center 26

unit *in 80MHz* is TBD.” SAMSUNG-1011, 9. Multiple other IEEE contributors were also working on methods to indicate the center 26-tone resource unit in 80 MHz or greater PPDUs, including Samsung itself:

Indication of middle 26 tone RU for 80Mhz BW and 160Mhz BW (1)

- The middle 26 tone RU for 80MHz BW can not be signaled in the existing RA LUTs shown in slide 5 and 6.
- One indication method is 1 bit indication in the common field
 - If operation BW is 80MHz, define 1 bit in the common field to indicate whether the middle 26 tone RU is used. This bit duplicates on common field 1 and 2.
 - If operation BW is 160Mhz, define 1 bit in the common field to indicate whether the middle 26 tone RU is used.
 - The bit in common field 1 indicates the middle 26 tone RU for the lower 80Mhz.
 - The bit in common field 2 indicates the middle 26 tone RU for the upper 80Mhz.
 - The user specific field for the STA assigned to the middle RU shall be placed in a predefined position.
 - For 80MHz, it can be placed at end of HE SIG B channel 1 or 2 or both. It can also be placed at the end of the shorter HE SIG B channel to help balance the load.
 - For 160Mhz, STA assigned to middle RU of lower 80Mhz can be placed at the end of HE SIG B channel 1 and STA assigned to middle RA of upper 80Mhz can be placed at the end of HE SIG B channel 2.



27

SAMSUNG-1010, 27

[0118] In an embodiment of the present disclosure, the resource allocation for the 26 tone RU split around the DC tones of an 80 MHz MU PPDU may be indicated by an extra bit in either of the 20 MHz segments or duplicated in both 20 MHz segments surrounding the DC tones. The presence of the extra bit is triggered by the bandwidth signaling when set to 80 MHz. The extra bit comes immediately preceding the 5 bit RU arrangement indication for the 20 MHz segment. The STA ID and user specific portion also follow the same order of indication as the RU arrangement indication.

SAMSUNG-1005, [0118] (Samsung publication)

At bottom, the Examiner erred by failing to evaluate the claim set as a whole. While the independent claims do not explicitly require HE-SIG-B content channels, that feature provides the basis for the claimed C26 field. Had the Examiner simply applied the combination of Chen, Hedayat, and Noh—which he had previously done for the dependent claims that require HE-SIG-B content channels—the reasons for including a C26 indication field in 80 MHz or larger PPDUs would have been apparent, and presumably, he would never have allowed the claims of the '595 Patent.

Because the Examiner overlooked highly relevant aspects of Noh's disclosure, the Examiner erred in issuing the '595 patent. Board resources are well-spent to correct the Examiner's error and to prevent further errors in the examination of this family of applications, which remains pending.

D. Discretionary Denial is Not Warranted Under *Fintiv*

Wilus urges discretionary denial based on a misguided application of the *Fintiv* factors that does not override the important justifications for PTAB review discussed above. As explained below, the *Fintiv* factors weigh against discretionary denial. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5-6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv I*”).

1. Factor 1: No Stay Has Been Requested

Fintiv Factor 1 looks to “whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.” This factor is neutral given that no litigation stay has been requested and no evidence clearly establishes how the district court would resolve such a request even if a stay were requested upon institution.

As a starting point, neither party has requested a stay of the litigation. Wilus does not dispute this fact. Paper 8 at 9. Still, attempting to tilt this factor in its favor, Wilus starts by citing various cases from the Eastern District of Texas where a motion to stay was filed in the co-pending litigation *prior to institution in the IPR* and the motion was denied. *Id.* (citing *Trover Group, Inc. v. Dedicated Micros USA*, No. 2:13-cv-1047-WCB, 2015 WL 1069179, at *6 (E.D. Tex. Mar. 11, 2015) (“This Court’s survey of cases from the Eastern District of Texas shows that when the

PTAB *has not yet acted on a petition* for inter partes review, the courts have uniformly denied motions for a stay.” (emphasis added))). However, the critical inquiry under this factor is whether “evidence exists” that a stay will be “granted *if a proceeding is instituted.*” *Fintiv I*, at 6.

Wilus cites no case that precludes the possibility of a stay being granted in the Eastern District of Texas *after institution*. On the contrary, Wilus acknowledges, as it must, that EDTX does not automatically deny stays *after institution*, although Wilus still paints a misleading picture that the outcome of any stay requested after institution here would almost certainly be denied. *See* Paper 8 at 10-12. In actuality, among decisions made in EDTX last year on motions to stay that were brought *after institution*, 28 percent of these motions were granted (i.e., 7 of 25 cases). SAMSUNG-1108. To date in 2025, EDTX has granted 39 percent of post-institution motions to stay (i.e., 7 of 18 cases). *Id.* Wilus also omits the fact that Judge Gilstrap and Magistrate Judge Payne have granted post-institution motions for stay where the defendant/petitioner has made a strong stipulation to be bound by IPR estoppel—exactly as Samsung has done here with a stipulation (SAMSUNG-1023) that is far broader than even the IPR estoppel provisions. *See, e.g.,* SAMSUNG-1106; SAMSUNG-1107.

Despite its denials, Wilus’s brief ultimately wades into impermissible speculation on how “likely” it is for the District Court to grant a stay of the co-pending

litigation. Paper 8 at 10-12. But motions to stay invoke fact- and case-specific considerations, and it would be highly prejudicial to Samsung for adverse inferences to be drawn from rulings on stay motions being denied in different and unrelated cases. Indeed, for these reasons, the Board has repeatedly refused to “attempt to predict” how a District Court will rule on such stay motions. *See, e.g., Hulu, LLC v. SITO Mobile R&D IP, LLC*, IPR2021-00298, Paper 11 at 10-11 (PTAB May 19, 2021) (because “neither party has produced evidence that a stay has been requested[.]” “[w]e decline to infer, based on actions taken in a different case with different facts, how the District Court would rule should a stay be requested by the parties in the parallel case here.”) (partially quoting *Fintiv I*); *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB June 16, 2020) (informative).

2. *Factor 2: The Court’s Trial Date is Speculative and the Evidence Strongly Suggests a Trial Date Within a Month of the Board’s Expected Final Written Decision Date*

Fintiv Factor 2 looks to “proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision” as part of a holistic evaluation of fairness and efficiency, which includes considering which forum will assess the patentability of the challenged claims. *See Fintiv I*, at 5-6; *see also Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 7-17 (PTAB May 13, 2020) (informative) (“*Fintiv II*”) (explaining that, in evaluating the *Fintiv* factors, the Board “takes a

holistic view of whether efficiency and integrity of the system are best served by denying or instituting review”); *Illumina, Inc. v. Natera, Inc.*, IPR2019-01201, Paper 19 at 6 (PTAB Dec. 18, 2019) (“We have considered the positions of the parties and find that, on this record, considerations of efficiency, fairness, and the merits of the grounds in the Petition do not weigh in favor of denying the Petition.”).

Wilus contends that this factor weighs in favor of discretionary denial because “if the IPR were instituted by the deadline, the FWD would be due six months after the trial [June 1, 2026], on December 16, 2026.” Paper 8 at 12. But there is a wealth of evidence—including statistics cited by Wilus itself—that establishes the uncertainty of the scheduled trial date. *See Sand Revolution II*, Paper 24 at 8 (finding that *Fintiv* factor 4 weighs against discretionary denial where the evidence demonstrates the trial date is uncertain).

First, statistics suggest that trial will occur much later. Wilus concedes that the median time-to-trial for the Eastern District of Texas has increased to 25.9 months according to official statistics from the Federal Court’s website. Paper 8 at 13-14. Wilus contends that “even considering Judge Gilstrap’s statistics, the trial would still have already occurred several months earlier, i.e., in September 2026, before the FWD in December 2026.” *Id.*, 14. But this is misleading and incorrect. Wilus filed its complaint asserting the ’595 patent on September 20, 2024. SAM-

SUNG-1004. With a September 20, 2024 filing date, the 25.9 median statistic suggests that trial will occur on November 16, 2026—over two months after Wilus’s listed date of September 2026 and only a month before the FWD deadline.⁴

With a gap of only a month or so, the FWD could precede trial, assuming the ID and FWD issue before statutory deadlines, which is common. To aid in the ability of the FWD to precede trial, Samsung requests its typical 3-month period for the Petitioner Reply be shortened by up to two months. With this adjustment in schedule, the FWD date would be able to precede the expected trial date, and factor 2 weighs in favor of institution.

At worst, factor 2 is neutral because the PTAB precedent considers the *proximity* of the parallel proceeding to the FWD. When the FWD is due shortly after the expected trial date—here, about a month later—this factor receives little weight. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 15 (PTAB December 1, 2020).

⁴ Since Wilus filed its brief, the Administrative Office of the U.S. Federal Courts has released new statistics through June 2025 indicating a 25.1 month median time-to-trial in the Eastern District of Texas. *See* SAMSUNG-1122. This places the projected trial date on October 23, 2026—within two months of the Board’s deadline to issue a Final Written Decision.

To be sure, the prospect of the currently scheduled trial date being delayed is significant given that Judge Gilstrap *currently has ten trials simultaneously scheduled* to start jury selection on June 1, 2026, only one of which is the Wilus litigation. *See* SAMSUNG-1111. By advocating for discretionary denial based on the scheduled jury selection date, Wilus assumes without basis that Judge Gilstrap will prioritize its litigation over the other cases scheduled to begin jury selection on the same day. Even if no one of the ten cases were favored over the others, the likelihood that Wilus’s litigation would be the one selected to start jury selection on June 1, 2026, is small—just one in ten.

Wilus also fails to acknowledge the significant amount of time required to reach a final judgment ripe for any appeal—after the resolution of post-trial motions. A recent analysis of cases before Judge Gilstrap shows that post-trial motions are not resolved on average for 6.9 months after a jury trial. SAMSUNG-1109, 2. Even if jury selection for trial in the Wilus litigation did begin on June 1, 2026, the “final resolution” (if it occurs at all) would likely not occur until 2027 after the Board’s Final Written Decision.

As a final point, Wilus ignores that four of the patents asserted as part of its litigation campaign against Samsung came later. Specifically, Wilus asserted U.S. Patent Nos. 10,911,186, 11,664,926, 11,716,171, and 12,004,262 against Samsung in a complaint filed on January 23, 2025. *See* SAMSUNG-1110. Per the 25.1 month

median time-to-trial statistic, trial is expected to occur for these patents on February 25, 2027. With petitions filed against these patents in June 2025, the FWDs (expected in December 2026 and January 2027) are due months earlier. Because *Fintiv* does not support denial for these petitions, Board resources are best dedicated to resolving validity for the overall complex and diverse dispute, rather than providing a piecemeal review of just the four patents Wilus chose to assert against Samsung in a later complaint. *See Embody*, Paper 13 at 2-3.

3. *Factor 3: Limited Resources Would Have Been Expended by the Time of the Decision on Institution*

Fintiv factor 3—which considers the “amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision”—also favors institution.

As of the Petition’s filing, the parties had only exchanged infringement and invalidity contentions. *See WILUS-2001*, 5. As of the filing of this paper, the case has not otherwise advanced much since the filing of the Petition, e.g., no depositions have been scheduled or have occurred. The parties have only just recently even *identified* potential terms for construction, and the date of this paper’s filing will mark the first exchange of the parties’ *preliminary* claim constructions. *Id.*

Wilus’s assertions of the “substantial time and resources” that would be invested in the District Court as of the Decision on Institution (December 16, 2025)

are misleading. *See* Paper 8 at 15-17. For example, while claim construction briefing will have been completed before the decision on institution, ***the claim construction order will not have issued*** because the hearing on claim construction is due the same day as the institution decision deadline. WILUS-2001, 4; *see SAP Am., Inc. v. Cyandia, Inc.*, IPR2024-01495, Paper 13 at 7 (PTAB Apr. 7, 2025) (finding that *Fintiv* factor 3 weighs against discretionary denial where, as is the case here, the *Markman* hearing is scheduled two weeks after the decision on institution is due). Moreover, the deadlines for expert discovery (Feb. 17, 2026) and dispositive motions (Feb. 23, 2026) would remain months away. WILUS-2001, 3.

By the time a Decision on Institution is entered in this proceeding, far more investment will remain in the litigation. This further counsels against discretionary denial, or at worst, renders Factor 3 neutral.

4. *Factor 4: No Overlap Between This IPR and the District Court Proceeding*

Fintiv factor 4—which considers overlap between issues raised in the Petition and in the parallel proceeding—strongly favors institution. Samsung’s broad stipulation—even more sweeping than *Sotera*—eliminates any potential overlap between this proceeding and Wilus’s district court action. *See* SAMSUNG-1023. Specifically, Samsung filed a stipulation (SAMSUNG-1023) providing that, if the PTAB institutes review, Samsung will not pursue in District Court litigation:

- “the specific grounds asserted in *inter partes* review in this proceeding, or any other ground that could have been reasonably raised in this proceeding (i.e., any ground that could have been raised under §§ 102 or 103 on the basis of prior art patents or printed publications). *See Sotera Wireless, Inc. v. Masimo Corporation*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020)”; and
- “combinations of the prior art asserted in this proceeding with unpublished system prior art (or any other type of prior art). *See Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024- 01205, IPR2024-01206, IPR2024-01207 & IPR2024-01208, Paper 19 (PTAB Mar. 28, 2025).”

Wilus attempts to dismiss Samsung’s stipulation as being “of limited value” and failing to provide “a true alternative to the district court proceeding,” but, in doing so, misrepresents the scope of Samsung’s stipulation. Paper 8 at 19-23 (citations omitted). To be clear, Samsung’s stipulation here is more robust than the *Sotera* stipulation addressed in *Motorola*. Samsung’s stipulation guarantees that, if instituted, none of the prior art asserted in the Petition will be used in the District Court proceeding—even in combination with unpublished system art.

Wilus contends that a recent Federal Circuit decision holding that IPR estoppel does not preclude a petitioner from relying on prior art asserted in a petition as evidence that the claimed invention was known or used by others, on sale, or in

public use “at the very least suggests the possibility that Samsung could present in the district court precisely the same combinations of prior art references.” Paper 8 at 20 (citing *Ingenico Inc. v. IOENGINE, LLC*, 136 F.4th 1354, 1366 (Fed. Cir. 2025)). But this decision on the scope of IPR estoppel in no way affects the scope of Samsung’s stipulation. Indeed, Samsung’s broad stipulation covers not only unpublished system art (see *Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19 (PTAB Mar. 28, 2025)), but also precludes Samsung from combining “the prior art asserted in this proceeding” with “*any other type of prior art.*” SAMSUNG-1023 (emphasis added). In short, Wilus’s speculative arguments are not grounded in the reality of Samsung’s broad stipulation.

What Wilus demands is that Samsung essentially waive *all* invalidity defenses because “[s]ystems implementing IEEE 802.11ac” (Wi-Fi 5) or the “[k]nowledge of a person of ordinary skill” may overlap with the prior art presented in the petition. Paper 8 at 21-22. But this goes far beyond merely preventing overlap between the proceedings—it asks petitioner to “forgo *any use of patents or printed publications as evidence of prior art*, whether alone or as a combination, and *under any ground*, including public use, public sale, and otherwise available to the public grounds.” *Id.* at 22-23 (emphasis added). Neither *Sotera* nor *Motorola* ask this much of a petitioner, and neither should Wilus. Rather, Samsung has provided a “broad” stipulation on par with those offered by the petitioners in *Tesla* and *Shenzhen*. See *Tesla*,

Paper 9 at 2; *Shenzhen*, Paper 10 at 3. This “broad stipulation ... weighs strongly in favor of not exercising discretion to deny institution.” *Sotera*, Paper 12 at 19.

Wilus next contends that “Samsung’s carefully worded stipulation does not prevent the art used in this Petition or similar prior art arguments to be made again in the Co-Pending litigation.” Paper 8 at 23. But this is untrue—at least as to Samsung, per the language of the broad stipulation. *See* SAMSUNG-1023. Rather, Wilus seems to imply that Samsung’s stipulation does not prevent other defendants (i.e., HP) from relying on the same art. Wilus again asks too much of Samsung—it cannot offer stipulations on behalf of an unrelated co-defendant in a consolidated proceeding. Instead, Samsung “*has done its part* to ‘mitigate[] any concerns of duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions.’” *Luminex Int’l Co., Ltd. v. Signify Holdings B.V.*, IPR2024-00101, Paper 20 at 29-30 (Vidal Nov. 21, 2024) (emphasis added) (quoting *Sotera*, Paper 12 at 18–19) (finding unpersuasive Patent Owner’s arguments that Petitioner’s *Sotera* stipulation is ineffective because “it only concerns its own actions” and not its co-defendants). By Wilus’s reasoning, if a petitioner is not a party to the district court action, then *Fintiv* factor 4 should weigh *against* the non-party petitioner because it has no ability to control the grounds presented by the defendants in district court. This is not the case. *See, e.g., POSCO Co., Ltd. v. ArcelorMittal*, IPR2025-00370, Paper 10 at 2 (Stewart June 25, 2025).

Finally, Wilus’s argument that “Samsung’s failure to address potential subsequent *ex parte* reexaminations in its stipulation is another reason it should be given little weight” has no merit. Paper 8 at 23. As an initial matter, Factor 4 concerns overlap between the IPR and a parallel proceeding, but no parallel *ex parte* reexamination exists in this case. This is because Samsung has never filed a request for *ex parte* reexamination on the ’595 patent. Wilus’s objection is thus speculative at best. Wilus’s concerns are also drastically overplayed because if IPR is instituted and proceeds to a Final Written Decision, Samsung would be estopped from using the Petition grounds, or any other grounds that could have been reasonably raised in an IPR, in an *ex parte* reexamination. 35 U.S.C. § 315(e)(1).

In sum, there will be virtually no overlap between this proceeding and the parallel District Court litigation if IPR is instituted. Samsung’s stipulation is even more expansive than *Sotera* thus ensuring that the Office’s goals of “efficiency and integrity” will be achieved by “not duplicating efforts” and “resolving materially different patentability issues.” *Apple, Inc. v. SEVEN Networks, LLC*, IPR2020-00156, Paper 10 at 19 (PTAB June 15, 2020); *Sand Revolution II*, Paper 24 at 12; *Google LLC v. Flypsi, Inc.*, IPR2023-00360, Paper 9 at 36-39 (PTAB Aug. 2, 2023). Therefore, *Fintiv* factor 4 strongly favors institution.

5. *Factor 5: The Same Parties are in the Co-Pending Litigation*

Fintiv Factor 5—The parties in this IPR are also parties in the co-pending

Texas litigation.

6. *Factor 6: Wilus's Identified "Other Circumstances" Lack Merit and Do Not Weigh in Favor of Discretionary Denial*

Fintiv factor 6—which considers other circumstances that impact the exercise of discretion, including the merits—strongly favors institution.

Wilus makes a baseless assertion that “the Petitioner failed to show a reasonable likelihood of success on any challenged claims.” Paper 8 at 24-25. Tellingly, however, Wilus was unable to identify, let alone allege, even a single deficiency in the Petition’s analysis of the prior art grounds or their relevance to the ’595 patent’s claims.

The Petition’s merits are strong, presenting straightforward obviousness grounds based on either Josiam or Chen that render obvious all features of the independent claims.

In summary, a holistic evaluation of the *Fintiv* factors and other discretionary criteria discussed above strongly counsel against discretionary denial at least because this proceeding will allow a just and efficient resolution of the patentability of the ’595 patent’s claims, while significantly ameliorating overlapping or duplicative functions being performed in the co-pending litigation.

E. Additional Considerations Counsel Against Discretionary Denial

The expert testimony submitted with the Petition supports institution because

it offers well-reasoned testimony supported by a wealth of evidence that demonstrates why the Josiam-based and Chen-based grounds render obvious all features of the independent claims. In addition, Samsung's compelling contribution to the U.S. economy weighs in favor of institution when compared against the non-existent contributions by Wilus—a non-practicing entity that does not make any products and only seeks to impose a tax on the widely-adopted Wi-Fi technology used by most Americans every single day.

1. The Extent of the Petition's Reliance on Expert Testimony

The Petition is supported by the expert declaration of Dr. R. Michael Buehrer. *See* SAMSUNG-1003. Dr. Buehrer's declaration includes testimony, which is not only guided by years of education and experience, but is further corroborated by ample documentary evidence including dozens of additional exhibits that confirm and amplify the positions and unpatentability arguments advanced in the Petition.

While identifying no instance where the expert declaration relied on bare testimony to fill a gap in the art, Wilus nonetheless contends that Dr. Buehrer's "declaration is riddled with conclusory statements and is essentially a mirror image of the Petition." Paper 8 at 25. This is not so. In fact, Dr. Buehrer's provides helpful context and explains terms of art. For example, Dr. Buehrer provides corroborated testimony describing the state of the art of orthogonal frequency-division multiple access resource units in the 802.11 (Wi-Fi) standard. *See* SAMSUNG-1003 ¶¶ 52-

81 (citing corroborating exhibits 1019 and 1020). Dr. Buehrer also provides corroborated testimony regarding how a POSITA would have understood the operation of a wireless communication terminal with respect to resource unit allocation signaling (SAMSUNG-1003 ¶¶ 114–137 (citing SAMSUNG-1005–1007, SAMSUNG-1011–1012, SAMSUNG- 1015–1016); and corroborated testimony highlighting that the need for special signaling for the center 26-resource unit in 80 MHz or larger wireless packets was well-known in the art (SAMSUNG-1003 ¶¶ 138–144, 197–199 (citing SAMSUNG-1008–1013)). Additionally, Dr. Buehrer provides detailed technical explanations supporting the petition’s proposed obviousness combinations and motivations to combine. *Id.* ¶¶ 95-98, 104-111. Dr. Buehrer’s robust testimony is confirmed and corroborated by more than a dozen references. *See generally* SAMSUNG-1003 ¶ 50; SAMSUNG-1005-1020.

In short, the petition advances strong and meritorious grounds that are supported by Dr. Buehrer’s focused and corroborated expert testimony. This factor favors institution.

2. *Compelling Economic, Public Health, or National Security Interests*

Wilus contends that the ’595 patent—along with the eleven other patents it has asserted against Samsung—are practiced not just by Samsung’s products but are in fact essential to the IEEE 802.11ax (Wi-Fi 6) standard. *See* Paper 8 at 3. Indeed,

Wilus has brought patent infringement actions against other consumer device makers, including HP—Samsung’s co-defendant in the District Court litigation. *Id.* at 3–4. Thus, ***the validity of Wilus’s patents is not a matter confined to the parties—it implicates entire sectors of the U.S. economy.*** Wi-Fi is a ubiquitous standard, embedded in billions of devices and serving as the backbone of modern commerce, education, healthcare, and government operations. Allowing invalid patents that purport to cover such a standard to persist functions as a market-wide tax, distorting competition and inflating costs for manufacturers and consumers alike. As Samsung’s petitions demonstrate, these asserted patents lack merit: they cover technology developed and patented by others, including Samsung itself. Permitting such patents to remain in force extracts wealth not in exchange for genuine innovation, but ***for the benefit of a foreign non-practicing entity***, to the detriment of American industry and consumers that rely on the ubiquitous Wi-Fi technology every day.

Unlike Wilus, which has never produced a product based on its alleged innovations, Samsung is responsible for substantial and sustained investments and economic activity in the United States. For example, Samsung’s investment in the US totals ***\$47 billion*** since 1978 (SAMSUNG-1102), and Samsung proposes ***\$191 billion*** in further investment, largely in Texas. SAMSUNG-1103. Further, “[s]ince 1996, Samsung Semiconductor has invested ***\$18 billion*** in operating two fabs at its Austin, Texas, campus—making it ***one of the largest direct foreign investments in***

United States history.” SAMSUNG-1104 (emphasis added). Additionally, Samsung’s investment is ongoing, with “President Trump Say[ing] Samsung Is Planning a ‘Massive Investment’ In The US.” SAMSUNG-1105. Thus, Samsung’s massive and ongoing investment presents a compelling economic interest, and Samsung’s investment (e.g., in US-made semiconductors) supports the U.S.’s national security interests.

Such considerations weigh heavily against discretionary denial and Samsung respectfully requests an opportunity for the strong grounds presented in its petition seeking review of the ’595 patent to be considered by the Board.

III. CONCLUSION

For the foregoing reasons, a holistic evaluation of the complex and diverse litigation between the parties, the *Fintiv* factors and the additional considerations laid out in the Stewart Memorandum strongly weigh against discretionary denial. Petitioner therefore respectfully requests that this case proceed to an institution determination on the merits.

Respectfully submitted,

Dated September 16, 2025

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CERTIFICATION UNDER 37 CFR §42.24

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Petitioner's Opposition to Patent Owner's Request for Discretionary Denial totals 9,258 words, which is less than the 14,000 words allowed under 37 CFR § 42.24.

Respectfully submitted,

Dated September 16, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4) and 42.205(b), the undersigned certifies that on September 16, 2025, a complete and entire copy of this Petitioner's Opposition to Patent Owner's Request for Discretionary Denial and Accompanying Exhibits were provided by email to the Patent Owner by serving the correspondence email address of record as follows:

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