

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SAMSUNG ELECTRONICS CO., LTD.,  
Petitioner

v.

WILUS INSTITUTE OF STANDARDS AND TECHNOLOGY INC.,  
Patent Owner

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Case IPR2025-00934  
U.S. Patent No. 11,159,210

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

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## EXHIBITS

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- SAMSUNG-1002 Excerpts from the Prosecution History of the ’210 Patent (“the Prosecution History”)
- SAMSUNG-1003 First Declaration and Curriculum Vitae of Dr. Christopher J. Hansen, Ph.D.
- SAMSUNG-1004 IEEE P802.11ax/D1.0 Draft Standard for Information technology– Telecommunications and information exchange between systems Local and metropolitan area networks– Specific requirements. Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications. Amendment 6: Enhancements for High Efficiency WLAN (November 2016) (“802.11ax\_D1.0”)
- SAMSUNG-1005 IEEE P802.11ax/D0.5 Draft Standard for Information technology– Telecommunications and information exchange between systems Local and metropolitan area networks– Specific requirements. Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications. Amendment 6: Enhancements for High Efficiency WLAN (September 2016) (“802.11ax\_D0.5”)
- SAMSUNG-1006 IEEE P802.11ax/D0.4 Draft Standard for Information technology– Telecommunications and information exchange between systems Local and metropolitan area networks– Specific requirements. Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications. Amendment 6: Enhancements for High Efficiency WLAN (August 2016) (“802.11ax\_D0.4”)
- SAMSUNG-1007 IEEE P802.11ax/D0.3 Draft Standard for Information technology– Telecommunications and information exchange between systems Local and metropolitan area networks– Specific requirements. Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications. Amendment 6: Enhancements for High Efficiency WLAN

(August 2016) (“802.11ax\_D0.3”)

SAMSUNG-1008 IEEE P802.11ax/D0.2 Draft Standard for Information technology– Telecommunications and information exchange between systems Local and metropolitan area networks– Specific requirements. Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications. Amendment 6: Enhancements for high efficiency in frequency bands between 1GHz and 6 GHz (June 2016) (“802.11ax\_D0.2”)

SAMSUNG-1009 IEEE P802.11ax/D0.1 Draft Standard for Information technology– Telecommunications and information exchange between systems Local and metropolitan area networks– Specific requirements. Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications. Amendment 6: Enhancements for high efficiency in frequency bands between 1GHz and 6 GHz (March 2016) (“802.11ax\_D0.1”)

SAMSUNG-1010 IEEE P802.11 Specification Framework for TGax, May 25, 2016 (“Stacey”)

SAMSUNG-1011 IEEE 802.11-16/0928r2 Proposed resolutions to comments on clause 26.3.9.8 (May 16, 2016)

SAMSUNG-1012 IEEE 802.11-16/0915r2 Bit field finalization of HE-SIG-A in HE PPDU formats (July 25, 2016)

SAMSUNG-1013 U.S. Pat. Pub. 2017/0181130 to Bharadwaj et al., filed on Dec. 21, 2016 (“Bharadwaj”)

SAMSUNG-1014 RESERVED

SAMSUNG-1015 U.S. Pat. Pub. 2016/0204912 to Sun, et al., filed January 8, 2016 (“Sun”)

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SAMSUNG-1018 IEEE802.11ax\_D0.5 (Partial) (“802.11ax\_D0.5\_IDS”)

- SAMSUNG-1019 U.S. Provisional Application No. 62/270,562, filed on Dec. 21, 2015 (“Bharadwaj Provisional 1”)
- SAMSUNG-1020 U.S. Provisional Application No. 62/299,554, filed on Feb. 24, 2016 (“Bharadwaj Provisional 2”)
- SAMSUNG-1021 U.S. Provisional Application No. 62/328,602, filed on Apr. 27, 2016 (“Bharadwaj Provisional 3”)
- SAMSUNG-1022 U.S. Provisional Application No. 62/344,374, filed on Jun. 1, 2016 (“Bharadwaj Provisional 4”)
- SAMSUNG-1023 U.S. Provisional Application No. 62/365,329, filed on Jul. 21, 2016 (“Bharadwaj Provisional 5”)
- SAMSUNG-1024 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-1025 Exhibit D (Infringement Chart for ’210 Patent), *Wilus Institute of Standards and Technology Inc., v. Samsung Electronics Co., LTD., et al.*, 2-24-cv-00746 (EDTX) filed September 11, 2024
- SAMSUNG-1026 Second Declaration and Curriculum Vitae of Dr. Christopher J. Hansen, Ph.D.
- SAMSUNG-1027 U.S. Pat. Pub. 2016/0380664 to Braun et al., filed on August 18, 2015, published on December 29, 2016 (“Braun”)
- SAMSUNG-1028 IEEE 802.11 Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications, Amendment 4: Enhancements for Very High Throughput of Operation in Bands below 6 GHz (“802.11ac-2013”)
- SAMSUNG-1029 Kim et al., IEEE 802.11-15/0821r2, HE-SIG-B Structure, 2015-07-11
- SAMSUNG-1030 Josiam, et al., IEEE 802.11-15/1066r0, HE-SIG-B Contents, 2015-09-13

- SAMSUNG-1031 Josiam, et al., IEEE 802.11-15/1315/r1, HE-SIG-B Mapping and Compression, 2015-11-09
- SAMSUNG-1032 Liu et al., IEEE 802.11-15/1335r2, HE-SIG-B Contents, 2015-11-09
- SAMSUNG-1033 Noh et al., IEEE 802.11-16/0040r0, Issues with Compressed SIG-B Mode, 2016-01-18
- SAMSUNG-1034 Josiam, et al., IEEE 802.11-15/0349r1, HE-SIG-B Compression Mode, 2016-03-14
- SAMSUNG-1035 Stacey, Comments on TGax, 2017-01-09
- SAMSUNG-1036 Lim et al., IEEE 802.11-17/0299r0, Comment Resolutions on Clause 28.3.10.8.1, 2017-03-08
- SAMSUNG-1037 *Fintiv* Stipulation
- SAMSUNG-1038 [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),  
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- 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),  
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- 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](https://www.sisvel.com/xlin7ipl485u/1kNkzUZptdvqKbYiX1DSfi/f518e18ee158be974d3c83f7cd7173be/Wi-Fi_6_Pool_patent_brochure.pdf)
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- SAMSUNG-1117 Letter from Kyung-rae Cho, Manager, Wilus Inst. of Standards. & Tech., Inc., to PatCom Administrator, IEEE-SA Standards Bd. Pat. Comm. (Jan. 15, 2021)
- SAMSUNG-1118 Yasuhiko Inoue, *IEEE 802.11 TGax January 2017 Atlanta Meeting Minutes* (Jan. 30, 2017) IEEE 802.11-17/0126r0
- 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 File History of EP Application No. 18736375.9

## 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. 11,159,210 (“the ’210 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 ’210 patent, is one of them. It relates to signaling user-specific fields and spatial stream configurations in multi-user MIMO transmissions, and it is of a wholly distinct technical field in Wi-Fi communication than the other eleven 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 (Jun. 13, 2025).

In addition, Wi-Fi 6 is a new technology, and consequently, Wilus's patents are also young: less than four 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 2021 issue date of the '210 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.<sup>1</sup> For the '210 patent, the Examiner overlooked highly relevant disclosure from the 802.11ax\_D0.5 standard document, failing to recognize that 802.11ax\_D0.5 discloses the features that the Examiner identified as missing from the prior art. Indeed, during prosecution of the European counterpart of the '210 patent, the European Examiner applied 802.11ax\_D0.5 to the same features that the Examiner cited as justifying allowance of the '210 patent. The Examiner also failed to fully investigate relevant Wi-Fi standard developments, leading to the Examiner missing the next iteration of the draft standard—802.11ax\_D1.0—applied in Ground 1 and alone rendering obvious all features of claims 6-9. 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;

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<sup>1</sup> See also IPR2025-00935, Paper 11 at 16-24 addressing Examiner error in issuing asserted U.S. Pat. No. 11,129,163 and IPR2025-00936, Paper 11 at 16-24 addressing Examiner error in issuing asserted U.S. Pat. No. 11,700,597.

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. Stratasy, 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 '210 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 '210 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 10-31. 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, Inc. v. Intellectual Ventures II LLC*, IPR2025-00217, Paper 9 at 2-3 (PTAB Jun. 13, 2025). Here, the ’210 patent is but one of twelve patents spanning eight different families that Wilus has asserted against Samsung in District Court.<sup>2</sup> *Cf. Shenzhen*, IPR2025-00438, Paper 10 at 3 (“Petitioner

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<sup>2</sup> 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.

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:

- 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);

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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 '210 patent involves eight patents spanning five distinct families.

- 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*, IPR2025-00217, 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*, IPR2025-00438, 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. 3-19 (involving a detailed background on evolution of the 802.11 standard); IPR2025-01043, Paper 2 at 2-4 (involving a priority analysis of the asserted art); IPR2025-00933, Paper 2 at 2 (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 (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 '210 Patent or the Other Patents at Issue**

*1. The '210 patent is Young, Having Been in Force Less than Four Years*

The '210 patent issued on October 26, 2021, and has thus been in force for *less than four years*. Because the '210 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 (Stewart June 26, 2025) (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”).

Wilus also is still pursuing a continuation in this family (*see* U.S. Patent App. No. 18/991,692), further confirming that any rights related to the '210 patent 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 29–31) 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*, IPR2025-00438, 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.” IPR2025-00408, 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 29 (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 ’210 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 '210 patent, Wilus points to an April 2022 demand letter (WILUS-2010) and a March 2022 information disclosure statement filed in a Samsung patent (WILUS-2013). Paper 8 at 29-31. 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 (Stewart June 6, 2025) (finding that Petitioner's knowledge of a 13-year-old patent for over twelve years weighed in favor of Patent Owner's settled expectations). Also, the March 2022 information disclosure statement lists a Korean counterpart of the '210 patent and does not indicate actual knowledge of the '210 patent itself. WILUS-2013; Paper 8 at 29–30.

Moreover, while Wilus's demand letter lists the '210 patent (among hundreds of patents), this letter does not include half of the patents Wilus has asserted against Samsung and failed to give Samsung sufficient notice of which patents Wilus thought Samsung infringed. *See* WILUS-2010 (not including U.S. Patent Nos. 11,470,595, 11,716,171, 11,516,879, 11,700,597, 11,664,926, 12,004,262). 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, ultimately conserves the resources of the parties, the judiciary, and the Board. *See Embody*, IPR2025-00248, Paper 13 at 2-3.

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 application to the '210 patent, KR 10-2017-0003147 filed on January 9, 2017. On January 16, 2017, the Working Group Chair expressly reminded participants of their duty to disclose relevant IP. *See* SAMSUNG-1116, 7-10; SAMSUNG-1118, pp. 2-3. Although the second Korean application (KR 10-2017-0008927) was filed on January 18, 2017, subsequent TGax sessions held on January 18-19, 2017 continued to include Intellectual Property Rights (IPR) policy reminders, reinforcing the obligation to disclose. *See* SAMSUNG-1118, 2-3, 10-12, 14, 17, 20-21.

In particular, 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 January 2017 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. Wilus’s failure to disclose its pending Korean applications that provide the alleged priority claim for the ’210 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 ’210 patent was filed (December 19, 2019) or published (January 25, 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 January 2021, nearly four 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 four 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.<sup>3</sup> *See Microsoft Corp. v. Partec Cluster Competence Cent. GmbH*, IPR2025-00318, Paper 9 at 3 (Stewart June 12, 2025); *Padagis US LLC v. Neurelis, Inc.*, IPR2025-00464, Paper 12 at 3 (Stewart July 16, 2025). For the '210 patent, the Examiner erred by overlooking relevant disclosure in the 802.11ax\_D0.5 draft standard and failing to fully investigate standard developments in a manner that would have led the Examiner to the 802.11ax\_D1.0 draft standard applied in Ground 1.

*1. The Examiner Overlooked Important Disclosure in 802.11ax\_D0.5*

To start, the Examiner erred in failing to appreciate relevant teachings from the 802.11ax\_D0.5 draft standard that disclose the limitations that formed the basis for allowance of the '210 patent. As discussed in the Petition (*see* pages 27-31),

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<sup>3</sup> *See also* IPR2025-00935, Paper 11 at 16-24 addressing Examiner error in issuing asserted U.S. Pat. No. 11,129,163 and IPR2025-00936, Paper 11 at 16-24 addressing Examiner error in issuing asserted U.S. Pat. No. 11,700,597.

during prosecution of the '210 patent, the Applicant submitted an IDS that included, among other things, 802.11ax\_D0.5\_IDS,<sup>4</sup> which was applied in the Extended European Search Report of the corresponding European application to reject pending European claims. SAMSUNG-1002, 123; SAMSUNG-1017, 23-25. In the U.S., following the Applicant's disclosure of 802.11ax\_D0.5\_IDS, the Examiner applied 802.11ax\_D0.5\_IDS in a final rejection, in combination with other references, to show that when in full bandwidth, the format of the user fields of the HE-SIG-B is identified based on a number of MU-MIMO users indicated by a sub-field of the HE-SIG-A. SAMSUNG-1002, 108-113 (citing SAMSUNG-1018, §26.3.3.7.4).

Despite rejecting the independent claims and a subset of dependent claims based on combinations including 802.11ax\_D0.5\_IDS, the Examiner nonetheless determined that dependent claims 23-25 and 29-31 were allowable. SAMSUNG-1002, 118. Accordingly, the Applicant responded by amending independent claims 21 and 27 to incorporate the allowable subject matter from claims 23 and 29. *Id.*, 95-101; SAMSUNG-1003, ¶¶92-100. Claims 23 and 29 were directed to

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<sup>4</sup> The version 802.11ax\_D0.5 (SAMSUNG-1018) considered during prosecution is an incomplete version of 802.11ax\_D0.5 (SAMSUNG-1005).

similar limitations and the amendment to claim 21 is representative of the amendments that moved the application to allowance:

21. (Currently Amended) A wireless communication terminal, the terminal comprising:  
a communication unit; and  
a processor configured to process signals transmitted and received through the communication unit,  
wherein the processor is configured to:  
receive, through the communication unit, a high efficiency multi-user PHY protocol data unit (HE MU PPDU),  
wherein a preamble of the HE MU PPDU includes high efficiency signal A field (HE-SIG-A) and high efficiency signal B field (HE-SIG-B), and  
decode the received HE MU PPDU based on information obtained from the preamble,  
wherein when a SIG-B compression field of the HE-SIG-A indicates full bandwidth multi User-Multiple Input Multiple Output(MU-MIMO) transmission, a format of user field(s) included in a user specific field of the HE-SIG-B is identified based on a number of MU-MIMO users indicated by a subfield of the HE-SIG-A,  
wherein when the number of MU-MIMO users indicates two or more users, the user specific field of the HE-SIG-B includes user fields for MU-MIMO allocation, and  
wherein when the number of MU-MIMO users indicates a single user, the user specific field of the HE-SIG-B includes one user field for non-MU-MIMO allocation.

Claim 23/29 features

SAMSUNG-1002, 96 (annotated); *see also id.*, 101 (“Claims 23 and 29 are incorporated into claims 21 and 27, respectively.”).

Following this amendment, the Examiner issued a notice of allowance that identified the limitations amended into claims 21 and 27 as the basis for allowance. Specifically, the Examiner identified 802.11ax\_D0.5\_IDS as the closest prior art, but nonetheless found that 802.11ax\_D0.5\_IDS lacks disclosure of the amended limitations from claims 23 and 29:

However, none of the prior arts cited alone or in combination provides the motivation to teach decode the received HE MU PPDU based on information obtained from the preamble, wherein when a SIG-B compression field of the HE-SIG-A indicates full bandwidth multi User-Multiple Input Multiple Output(MU-MIMO) transmission, a format of user field(s) included in a user specific field of the HE-SIG-B is identified based on a number of MU-MIMO users indicated by a subfield of the HE-SIG-A, wherein when the number of MU-MIMO users indicates two or more users, the user specific field of the HE-SIG-B includes user fields for MU-MIMO allocation, and wherein when the number of MU-MIMO users indicates a single user, the user specific field of the HE-SIG-B includes one user field for non-MU-MIMO allocation as recited in claims 21 and 27.

SAMSUNG-1002, 84-85 (highlighting added).

The Examiner's decision to allow the '210 patent based on incorporation of limitations from claims 23 and 29 constituted material error, however, because the Examiner failed to recognize that these features were in fact disclosed in 802.11ax\_D0.5\_IDS—i.e., the same prior art that the Examiner had applied in the final office action and that was identified among the closest prior art in the notice of allowance. Significantly, multiple circumstances confirm and corroborate the relevance of 802.11ax\_D0.5 to these limitations, including:

- (1) review of 802.11ax\_D0.5 itself, which reveals a straightforward mapping to the implicated limitations,
- (2) the European Examiner's determination that 802.11ax\_D0.5 anticipates substantially the same limitations,

(3) Dr. Hansen’s expert analysis showing that equivalent disclosure in 802.11ax\_D1.0 provides the claim 23/29 limitations, and

(4) Wilus’s infringement charts from co-pending litigation in which Wilus points to portions of the 802.11ax standard that were earlier disclosed in 802.11ax\_D0.5.

First, the Examiner’s error can be seen from 802.11ax\_D0.5 itself. For example, the Applicant amended the independent claims to incorporate the limitation from claim 23 “wherein when the number of MU-MIMO users indicates two or more users, the user specific field of the HE-SIG-B includes user fields for MU-MIMO allocation.” *E.g.*, SAMSUNG-1002, 126. This feature is disclosed in 802.11ax\_D0.5. For example, 802.11ax\_D0.5 describes that the “User Specific field of a HE-SIG-B content channel ... consists of **one or more** ... user Block fields.” SAMSUNG-1018, §26.3.10.8.1, Figure 26-20 (emphasis added); SAMSUNG-1003, ¶¶92-100.

802.11ax\_D0.5 also describes the format for the user field for the MU-MIMO allocation as including the **Spatial Configuration field (SCF)**. SAMSUNG-1018, §26.3.10.8.5, Table 26-23. Table 26-23 is reproduced below:

The HE-SIG-B user field for an STA in MU-MIMO allocation contain the subfields shown in Fields of the HE-SIG-B user field for an.

**Table 26-23—Fields of the HE-SIG-B user field for an(#2817) MU-MIMO allocation(#2037)**

Bit	Field	Number of bits	Description
B0-B10	STA-ID	11	The STA-ID refers to the AID described in 9.4.1.8 (AID field). The 11 LSBs of the AID field are used to address STAs in this field.(#1003)
B11-B14	Spatial Configuration	4	Indication for the number of spatial streams for a STA in an(#2817) MU-MIMO allocation. See Spatial Configuration subfield encoding .
B15-B18	MCS	4	Modulation and coding scheme. Set to $n$ for MCS $n$ , where $n = 0, 1, 2, \dots, 11$ Values 12 to 15 are reserved
B19	DCM	1	Indicates whether or not dual carrier modulation is used. Set to 1 to indicate that the payload of the HE MU PPDU is modulated with dual carrier modulation for the MCS. Set to 0 indicates that the payload of the PPDU is not modulated with dual carrier modulation for the MCS.
B20	Coding	1	Indicates whether BCC or LDPC is used. Set to 0 for BCC Set to 1 for LDPC
NOTE—Integer fields are transmitted in unsigned binary format, LSB first, where the LSB is in the lowest numbered bit position.(#1010)			

SAMSUNG-1018, Table 26-23 (annotated)

SAMSUNG-1003, ¶¶92-100. As Dr. Hansen explains, these fields provide or at least render obvious that when the number of MU-MIMO users indicates two or more users, the user specific field of the HE-SIG-B includes user fields for MU-MIMO allocation. *Id.*

Claim 23 also recited, “wherein when the number of MU-MIMO users indicates a single user, the user specific field of the HE-SIG-B includes one user field for non-MU-MIMO allocation.” SAMSUNG-1002, 126. But the Examiner again did not appreciate that 802.11ax\_D0.5\_IDS discloses this feature. For example,

802.11ax\_D0.5\_IDS describes that the “last User Block field may contain information for one or two STAs depending on” the number of users indicated. SAMSUNG-1018, §26.3.10.8.1 (emphasis added); SAMSUNG-1003, ¶¶92-100.

802.11ax\_D0.5\_IDS also describes that when “the SIGB Compression field in the HE-SIG-A field of an HE MU PPDU is set to 1 (indicating full bandwidth MU-MIMO transmission), the Common Block field is not present and the content channel consists of only the User Specific field.” SAMSUNG-1018, §26.3.10.8.1. And 802.11ax\_D0.5\_IDS describes indicating the number of MU-MIMO users in the HE-SIG-A “Number of HE-SIG-B or MU-MIMO Users” field when SIGB Compression field is 1. *Id.*, Table 26-17; SAMSUNG-1003, ¶¶92-100.

The format for the HE-SIG-B user field for the non-MU-MIMO allocation is shown in Table 26-22 and includes the NSTS field:

The HE-SIG-B user field for an(#916) SU allocation contain the subfields shown in Fields of the HE-SIG-B user field for an.

**Table 26-22—Fields of the HE-SIG-B user field for an(#916) non-MU-MIMO(#1101) allocation(#2037)**

Bit	Field	Number of bits	Description
B0-B10	STA-ID	11	<p>The STA-ID refers to the AID described in 9.4.1.8 (AID field). The 11 LSBs of the AID field are used to address the STAs in this field.(#1002)</p> <p>For RUs that carry a broadcast allocation:</p> <ul style="list-style-type: none"> <li>— For single BSS AP, the STAID for broadcast will be 0</li> <li>— For Multiple BSS AP, the STAID for broadcast to a specific BSS will follow the group addressed AID assignment in the TIM according to the existing Multi-BSSID TIM operation</li> <li>— For multiple BSS AP, the STAID for broadcast to all BSS of the AP is set to 2047(#2681)</li> <li>— STAID value 2046 is used to indicate that the RU carries no data</li> <li>— When a STA transmits on the uplink using the HE MU PPDU format, the STA-ID field is populated by the AID of the transmitter assigned by the AP</li> </ul>
B11-B13	NSTS	3	<p>Number of spatial streams.</p> <p>Set to the number of space time streams minus 1.(#Ed)</p>
B14	Tx Beam-forming	1	<p>Use of transmit beamforming.</p> <p>Set to 1 if a beamforming steering matrix is applied to the waveform in an SU transmission. Set to 0 otherwise.</p>
B15-B18	MCS	4	Modulation and coding scheme

SAMSUNG-1018, Table 26-22 (annotated)

SAMSUNG-1003, ¶¶92-100.

Because 802.11ax\_D0.5\_IDS included all of the elements of claim 23, the Examiner committed material error in allowing claims 23 (and 29) over 802.11ax\_D0.5\_IDS. Notably, despite the Examiner’s clear error being identified in the Petition (*see* pages 27-31), Wilus did not address the error in its request for discretionary denial.

Second, the Examiner’s error in allowing the ’210 patent over 802.11ax\_D0.5 is underscored by the European Examiner’s *unchallenged* reliance on 802.11ax\_D0.5 as disclosing substantially the same features that the U.S. Examiner alleged was missing from 802.11ax\_D0.5. Indeed, during examination of the corresponding European counterpart of the ’210 patent, the European examiner applied 802.11ax\_D0.5 in rejecting dependent claims that recited substantially the same features as the limitations that formed the basis for allowance of the ’210 patent. For example, claim 4 of the counterpart EP application recited the following “wherein” clauses *identical* in substance to the clauses recited in allowable claim 23 of the U.S. application:

4. The wireless communication terminal of claim 3,  
wherein when the information on the number of MU-MIMO users indicates two or more users, the user specific field of the HE-SIG-B includes user fields for MU-MIMO allocation, and  
wherein when the information on the number of MU-MIMO users indicates a single user, the user specific field of the HE-SIG-B includes one user field for non-MU-MIMO allocation.

SAMSUNG-1123, 269; *compare with* SAMSUNG-1002, 96, 126, 131.

Unlike the U.S. Examiner, the European Examiner had no trouble finding these features disclosed in 802.11ax\_D0.5. The European Examiner identified 802.11ax\_D0.5 as an anticipatory (X) reference and determined that claim 4 was “not new” in view of 802.11ax\_D0.5.

D1 "High Efficiency (HE) PHY specification",  
IEEE DRAFT; TGAX\_CL\_26, IEEE-SA, PISCATAWAY, NJ USA  
,  
vol. 802.11ax drafts, no. D0.5 1 October 2016 (2016-10-01), pages  
1-207, XP068137445,  
Retrieved from the Internet:  
URL:www.ieee802.org/11/private/Draft\_Standards/11ax/  
TGax\_CL\_26.rtf  
[retrieved on 2016-10-01]

SAMSUNG-1123, 260 (highlighting added).

Furthermore, dependent claims 2-8 and 10-16, insofar as they can be understood, do not contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the EPC in respect of novelty (Article 54(1) and (2) EPC) and/or inventive step (Article 56 EPC), for the following reasons:

- Claims 2-5, 7, 8, 10-13, 15, 16 : not new, see document D1, see section 26.3.3.7.4;

- Claims 6, 14 : not new, see document D1, see section 26.3.2.1;

SAMSUNG-1123, 262 (highlighting added).

Notably, the Wilus did not contest the European examiner's finding that 802.11ax\_D0.5 discloses the limitations that the U.S. Examiner relied upon as forming the basis for allowance of the '210 patent. Wilus instead amended the independent claims of the EP application to recite different limitations, leaving the rejection of claim 4 based on 802.11ax\_D0.5 unchallenged. *See* SAMSUNG-1123, 216-217.

Although the U.S. Examiner considered the relevant European search report with the grounds involving 802.11ax\_D0.5, the claims of the European counterpart

application were not of record and the Examiner failed to appreciate how the European Examiner was rejecting the same features with 802.11ax\_D0.5. Had the U.S. Examiner more fully investigated the prosecution record in Europe the U.S. Examiner would have been led to the relevant disclosure in 802.11ax\_D0.5 and never would have issued the claims of the '210 patent.

Third, the Examiner's error can be seen from the detailed analysis of Elements [6.4]-[6.5] in Ground 1A of the Petition and Dr. Hansen's expert declaration. *See* Pet., 42-48; SAMSUNG-1003, ¶¶116-126. Ground 1A relied on 802.11ax\_D1.0, a later version of 802.11ax\_D0.5 cited during prosecution. *Id.* While not identical, the Petition and Dr. Hansen demonstrate how disclosure from 802.11ax\_D1.0 similar and overlapping to disclosure in 802.11ax\_D0.5 provides the limitations that formed the basis of allowance as recited in Elements [6.4]-[6.5]. *Id.* The Examiner never explained in the file history why 802.11ax\_D0.5 was deemed not to disclose these limitations, but the compelling analysis set forth in Dr. Hansen's expert declaration and the Petition regarding similar and overlapping disclosure in 802.11ax\_D1.0 further underscores that the Examiner failed to appreciate the relevance of 802.11ax\_D0.5 to these limitations. For example, the Petition referred to details of the fields of the HE-SIG-B user field for a non-MU-MIMO and for an MU-MIMO allocation in Tables 28-22 and 28-23 of

802.11ax\_D1.0, respectively, when addressing Elements [6.4]-[6.5]. Pet., 47-48.

But substantially similar details were already disclosed in Tables 26-22 and 26-23 of 802.11ax\_D0.5, as shown below. The Examiner failed to recognize the relevance of these disclosures in 802.11ax\_D0.5 to application claims 23 and 29 when those claims were wrongly found to recite allowable subject matter.

D0.5				D1.0																																																											
<p><b>Table 26-22—Fields of the HE-SIG-B user field for an (#916) non-MU-MIMO(#1101) allocation(#2037)</b></p> <table border="1"> <thead> <tr> <th>Bit</th> <th>Field</th> <th>Number of bits</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>B0-B10</td> <td>STA-ID</td> <td>11</td> <td> <p>The STA-ID refers to the AID described in 9.4.1.8 (AID field). 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SAMSUNG-1004, Table 28-22; SAMSUNG-1005, Table 26-22.

Table 26-23—Fields of the HE-SIG-B user field for an(#2817) MU-MIMO allocation(#2037)			
Bit	Field	Number of bits	Description
B0-B10	STA-ID	11	The STA-ID refers to the AID described in 9.4.1.8 (AID field). The 11 LSBs of the AID field are used to address STAs in this field.(#100)
B11-B14	Spatial Configuration	4	Indication for the number of spatial streams for a STA in an(#2817) MU-MIMO allocation. See Spatial Configuration subfield encoding .
B15-B18	MCS	4	Modulation and coding scheme. Set to n for MCS <sub>n</sub> , where n = 0, 1, 2, ..., 11 Values 12 to 15 are reserved
B19	DCM	1	Indicates whether or not dual carrier modulation is used. Set to 1 to indicate that the payload of the HE MU PPDU is modulated with dual carrier modulation for the MCS. Set to 0 indicates that the payload of the PPDU is not modulated with dual carrier modulation for the MCS.
B20	Coding	1	Indicates whether BCC or LDPC is used. Set to 0 for BCC Set to 1 for LDPC
NOTE—Integer fields are transmitted in unsigned binary format, LSB first, where the LSB is in the lowest numbered bit position.(#1010)			

Table 28-23—Fields of the HE-SIG-B user field for an MU-MIMO allocation			
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B11-B14	Spatial Configuration	4	Indication for the number of spatial streams for a STA in an MU-MIMO allocation. See Table 28-24 (Spatial Configuration subfield encoding).
B15-B18	MCS	4	Modulation and coding scheme. Set to n for MCS <sub>n</sub> , where n = 0, 1, 2, ..., 11 Values 12 to 15 are reserved
B19	DCM	1	Indicates whether or not dual carrier modulation is used. Set to 1 to indicate that the payload of the HE MU PPDU is modulated with dual carrier modulation for the MCS. Set to 0 indicates that the payload of the PPDU is not modulated with dual carrier modulation for the MCS.
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SAMSUNG-1004, Table 28-23; SAMSUNG-1005, Table 26-23.

Fourth, Wilus’s own infringement charts from the co-pending litigation further highlight the Examiner’s error in allowing the ’210 Patent over 802.11ax\_D0.5. See SAMSUNG-1025. Wilus accuses “Samsung’s Wi-Fi 6 (802.11ax) enabled devices” of infringing claims of the ’210 Patent, and its infringement charts cite to portions of the IEEE 802.11ax-2021 standard. *Id.* The infringement charts are instructive here because Wilus’s mappings to the claim limitations that formed the basis for allowance (e.g., Elements [6.4]-[6.5]) refer to portions of the IEEE 802.11ax-2021 standard *that were already disclosed in the art before the Examiner including 802.11ax\_D0.5*. For example, for Element [6.4], Wilus cites Table 27-29 of IEEE 802.11ax-2021 regarding user field format for

MU-MIMO allocation. SAMSUNG-1025, 23-25. But 802.11ax\_D0.5 already disclosed these same fields identified in Wilus’s infringement chart:

Infringement Chart		D0.5																																											
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SAMSUNG-1025, 25; SAMSUNG-1005, Table 26-23.

Likewise, for Element [6.5], Wilus cites Table 27-28 of IEEE 802.11ax-2021 regarding user field format for non-MU-MIMO allocation. SAMSUNG-1025, 25-27. But again, 802.11ax\_D0.5 already disclosed these same fields identified in Wilus’s infringement chart:

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<p>Issued Claim(s)</p>	<p>Public Documentation</p> <p><b>Table 27-28—User field format for non-MU-MIMO allocation</b></p> <table border="1"> <thead> <tr> <th>Bit</th> <th>Subfield</th> <th>Number of bits</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>B0-B10</td> <td>STA-ID</td> <td>11</td> <td>Set to a value of the TXVECTOR parameter STA_ID (see 26.11.1).</td> </tr> <tr> <td>B11-B13</td> <td>NSTS</td> <td>3</td> <td>If the STA-ID subfield is not 2046, indicates the number of space-time streams and is set to the number of space-time streams minus 1. Set to an arbitrary value if the STA-ID subfield is 2046.</td> </tr> <tr> <td>B14</td> <td>Beamformed</td> <td>1</td> <td>If the STA-ID subfield is not 2046, used in transmit beamforming. Set to 1 if a beamforming steering matrix is applied to the waveform in a non-MU-MIMO allocation. Set to 0 otherwise. Set to an arbitrary value if the STA-ID subfield is 2046.</td> </tr> </tbody> </table> <p>(IEEE 802.11ax-2021, § 27.3.11.8.4)</p>			Bit	Subfield	Number of bits	Description	B0-B10	STA-ID	11	Set to a value of the TXVECTOR parameter STA_ID (see 26.11.1).	B11-B13	NSTS	3	If the STA-ID subfield is not 2046, indicates the number of space-time streams and is set to the number of space-time streams minus 1. Set to an arbitrary value if the STA-ID subfield is 2046.	B14	Beamformed	1	If the STA-ID subfield is not 2046, used in transmit beamforming. Set to 1 if a beamforming steering matrix is applied to the waveform in a non-MU-MIMO allocation. Set to 0 otherwise. Set to an arbitrary value if the STA-ID subfield is 2046.												
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SAMSUNG-1025, 27; SAMSUNG-1005, Table 26-22.

In sum, the Examiner never should have allowed the '210 Patent over 802.11ax\_D0.5. The Examiner erroneously assumed that 802.11ax\_D0.5 does not disclose “when the number of MU-MIMO users indicates two or more users, the user specific field of the HE-SIG-B includes user fields for MU-MIMO allocation” and “when the number of MU-MIMO users indicates a single user, the user specific field of the HE-SIG-B includes one user field for non-MU-MIMO allocation.”

The Examiner's determination was wrong, and indeed, was an outlier among multiple independent assessments of the same or similar disclosure by the European Examiner and Dr. Hansen. Even Wilus's own infringement charts point to disclosures in the 802.11ax-2021 standard had been similarly disclosed much earlier in 802.11ax\_D0.5. Against this evidence, the Examiner's error is clear and Office resources are warranted to ensure proper scrutiny is given to the patentability of the '210 Patent claims.

2. *The Examiner Failed to Conduct an Adequate Investigation Into 802.11 Standard Development That Would Have Led to 802.11ax\_D1.0*

In addition, a thorough investigation into the 802.11 standard should have led the Examiner to the 802.11ax\_D1.0 reference asserted in Ground 1. As discussed in the Petition (*see* pages 5-19), regular updates were made to the 802.11ax standard during its development and the D1.0 draft naturally followed the D0.5 draft and would have been easy to locate if the Examiner had looked into the standard development. The Examiner should have been familiar with standard developments in the technology relevant to the '210 patent and should have considered updates to the 802.11ax\_D0.5 draft standard considered during prosecution. Had the Examiner looked into the 802.11ax standard development process the Examiner would have located the D1.0 standard. By failing to investigate the 802.11ax standard, the Examiner committed material error.

Because the Examiner overlooked highly relevant aspects of 802.11ax\_D0.5 and failed to complete a straight-forward investigation of 802.11ax standard development that would have led to 802.11ax\_D1.0, the Examiner erred in issuing the '210 patent. Board resources are thus 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*").

*3. 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 11. 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.*” *Finiv 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*, Paper 8 at 13, although Wilus still paints a misleading picture that the outcome of any stay requested after institution here would almost certainly be denied. 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-1022) 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 12-13. 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 (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 (June 16, 2020) (informative).

4. *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 the trial date (June 1, 2026) is scheduled six months before the date of FWD (December 10, 2026). Paper 8 at 14. 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

15. Wilus filed its complaint asserting the '210 patent on September 11, 2024. SAMSUNG-1024. With a September 11, 2024 filing date, the 25.9 median statistic suggests that trial will occur on November 7, 2026—over two months after Wilus's listed date of September 2026 and only about one month before the FWD deadline.<sup>5</sup>

With a gap of only one month, 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, less than two months later—this factor receives little weight. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 15

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<sup>5</sup> 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 14, 2026—less than two months before the Board's deadline to issue a Final Written Decision.

(PTAB December 1, 2020).

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. 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*, IPR2025-00248, Paper 13 at 2-3.

5. *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 10, 2025) are misleading. *See* Paper 8 at 16-19. For example, while claim construction briefing will have been completed before the decision on institution, ***the claim construction hearing will not have occurred.*** *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, 2025) and dispositive motions (Feb. 23, 2026) would remain months away. WILUS-2001.

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.

6. *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-1037. Specifically, Samsung filed a stipulation (SAMSUNG-1037) 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 22-25. 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 22-23 (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-1037 (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 “systems implementing IEEE 802.11ac” (Wi-Fi 5) or the “[k]nowledge of a person of ordinary skill in the art” may overlap with the prior art presented in the petition. Paper 8 at 24. But this goes far beyond merely preventing overlap between the proceedings—it asks petitioner to “forego *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.” Paper 8 at 25 (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 10 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 “the stipulation does not prevent the same references from being raised in the Co-Pending Litigation by another Defendant.” Paper 8 at 26. 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 *Fin-tiv* 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 25-26. 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 ’210 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.

7. *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.

8. *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 27. 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 ’210 patent’s claims.

The Petition’s merits are strong, asserting a prior art reference—802.11ax\_D1.0—that alone render obvious all features of the independent claim 6. The Petition also includes pre-priority drafts of the accused 802.11ax (Wi-Fi 6) standard and prior art references from other standards contributors, including engineers from Qualcomm and Marvell. A review of both the draft standard as of the ’210 patent’s priority date and the work of those directly involved in developing the standard demonstrates a compelling case of unpatentability. The Board should be permitted to make this determination.

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 '210 patent's claims, while significantly ameliorating overlapping or duplicative functions being performed in the co-pending litigation.

**C. 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 802.11ax\_D1.0 renders obvious all features of independent claim 6. 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. Christopher J. Hansen. *See* SAMSUNG-1003. Dr. Hansen'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 tes-

timony to fill a gap in the art, Wilus nonetheless contends that Dr. Hansen’s “declaration is riddled with conclusory statements and is essentially a mirror image of the Petition.” Paper 8 at 27-28. This is not so. In fact, Dr. Hansen’s declaration “provide[s] helpful context [and] [] explain[s] terms of art.” WILUS-2004, 7 (Question No. 22).

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

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

Wilus contends that the ’210 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. Paper 8 at 4–5. 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 '210 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 10, 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 9,143 words, which is less than the 14,000 words allowed under 37 CFR § 42.24.

Respectfully submitted,

Dated September 10, 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 10, 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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