

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 IPR2025-00936
U.S. Patent No. 11,700,597

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

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EXHIBITS

- SAMSUNG-1001 U.S. Patent No. 11,700,597 to Ko, et al. (“the ’597 patent”)
- SAMSUNG-1002 Excerpts from the Prosecution History of the ’597 Patent (“the Prosecution History”)
- SAMSUNG-1003 Declaration and Curriculum Vitae of Dr. Mark P. Mahon
- SAMSUNG-1004 Complaint, *Wilus Institute of Standards and Technology Inc., v. Samsung Electronics Co., Ltd., et al.*, 2-24-cv-00765 (EDTX) filed September 20, 2024
- SAMSUNG-1005 U.S. Pat. App. Pub. No. 2017/0223731 (“Lee”)
- SAMSUNG-1006 Robert Stacey et al., *Proposed TGax Draft Specification*, IEEE 802.11-16/0024r1 (Mar. 2, 2016), available at <https://mentor.ieee.org/802.11/dcn/16/11-16-0024-01-00ax-proposed-draft-specification.docx> (“Stacey”)
- SAMSUNG-1007 U.S. Pat. App. Pub. No. 2016/0345258 (“Zhou”)
- SAMSUNG-1008 U.S. Provisional App. No. 62/165,782 (“Zhou Provisional”)
- SAMSUNG-1009 European Pat. App. Pub. No. 2930997 (“Choudhury”)
- SAMSUNG-1010 Int’l Pub. No. WO 2015/120488 (“Liu”)
- SAMSUNG-1011 U.S. Pat. App. Pub. No. 2015/0312386 (“Lee”)
- SAMSUNG-1012 U.S. Pat. No. 9,172,447 (“Park”)
- SAMSUNG-1013 U.S. Pat. No. 7,848,330 (“Nishibayashi”)
- SAMSUNG-1014 U.S. Pat. No. 7,769,043 (“Cimini”)
- SAMSUNG-1015 European Pat. No. 3139690 (“Kim”)
- SAMSUNG-1016 Int’l Pub. No. WO 2015/198157 (“Seok”)
- SAMSUNG-1017 Int’l Pub. No. WO 2011/159831 (“Wentink”)

- SAMSUNG-1018 Int'l Pub. No. WO 2014/179713 ("Oteri")
- SAMSUNG-1019 Kurose and Ross, Computer Networking: A Top-Down Approach, 8th Ed, 2021 ("Kurose")
- SAMSUNG-1020 IEEE 802.11-2016
- SAMSUNG-1021 Declaration of Christopher Hansen, PH.D.
- SAMSUNG-1022 *Fintiv* Stipulation
- SAMSUNG-1023 [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://wccfttech.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 U.S. Pat. App. Pub. No. US 2015/0264617 A1 (“Choudhury US Publication”)
- SAMSUNG-1115 Geonjung Ko et al., *Issues on BSS Color Bits Collision* (Mar. 14, 2016) IEEE 802.11-16/0396r0
- 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. (Jan. 15, 2021)
- SAMSUNG-1118 [Reserved]

- 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 Excerpts from the Prosecution History of U.S. Pat. No. 11,129,163

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. 11,700,597 (“the ’597 patent”), which is a continuation of U.S. Pat. No. 11,129,163 (“the ’163 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 ’597 patent, is one of them. It relates to basic service set interference management through BSS coloring. 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 (Jun. 13, 2025).

In addition, Wi-Fi 6 is a new technology, and consequently, Wilus’s patents are also young: less than two and a half 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 2023 issue date of the ’597 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. For the ’597 and ’163 patents, the Examiner overlooked highly relevant disclosure from the Choudhury reference, failing to recognize that Choudhury discloses the exact same embodiment as these patents—a

BSS color value of 0. *Compare* SAMSUNG-1001, 21:35-39 (“the predetermined value may be a **reserved value**.... For example, the predetermined value may be **zero**”; claim 8 – “wherein the predetermined value is **0**”) *with* SAMSUNG-1114, [0043] (“**reserved values** may be used for the entire 4-bit field. For example, ... **0000** may be used”), SAMSUNG-1009, [0029] (same disclosure). The Examiner’s search also failed to consider alternative terminology for the ’597 and ’163 patent’s claim language and failed to adequately investigate prior art from the top assignee (LG Electronics Inc.) identified to the Examiner multiple times during examination of the ’163 patent. Either of these actions would have led the Examiner to the Lee reference applied in Ground 1 of the Petition. 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. 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 '597 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 '597 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 9 at 9-27. 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 '597 patent is but one of twelve patents spanning eight different families that Wilus has asserted against Samsung in District Court.¹ *Cf. Shenzhen*, IPR2025-00438, Paper 10 at 3 ("Petitioner explains that the parallel district court proceeding involves *nine different patents*

¹ 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 '597 patent involves eight patents spanning five distinct families.

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);
- 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. 2-3 (involving a priority analysis of the asserted art); IPR2025-01043, Paper 2 at 2-4 (same); IPR2025-00933, Paper 2 at 2 (same); IPR2025-00935, 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 '597 Patent or the Other Patents at Issue

1. The '597 patent is Young, Having Been in Force Less than Two and a Half Years

The '597 patent issued on July 11, 2023, and has thus been in force for *less than two and a half years*. Because the '597 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. 18/902,833), 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 9 at 25–27) 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 9 at 26 (citing WILUS-2013). 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 '597 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 '597 patent, Wilus points to two demand letters sent to Samsung in April 2022 (WILUS-2010) and October 2023 (WILUS-2011). Paper 9 at 26–27. As an initial matter, Wilus's first letter does not even list the '597 patent, as Wilus concedes in its brief (*id.*), nor does it include half of the patents Wilus has asserted against Samsung. *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). Wilus does not allege Samsung received any actual notice of the '597 patent until its October 2023 letter—sent less than two years ago and less than a year before Wilus initiated its district court action against

Samsung. Paper 9 at 26–27. 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).

Moreover, the October 2023 letter listed the ’597 patent among hundreds of other patents and failed to give Samsung sufficient notice of which patents Wilus thought Samsung infringed. *See WILUS-2011* (listing over four hundred patents; failing to include U.S. Patent Nos. 11,716,171 and 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, including a parent of the ’597 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) (“[I]t is an efficient use of Board resources to address [a] related patent.”).

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 '597 patent, KR 10-2016-0026684 filed on March 4, 2016, and KR 10-2016-0029975 filed on March 12, 2016. On March 16, 2016, the Working Group Chair expressly reminded participants of their duty to disclose relevant IP. *See* SAMSUNG-1116, 7-10.

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 March 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. Wilus's failure to disclose its pending Korean applications that provide the alleged priority claim for the '597 patent violated this expectation of transparency. Instead, Wilus delayed its Letter of Assurance until January 2021, nearly five 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 two and a half 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. *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 '597 patent, the Examiner largely rubberstamped its claims based on examination of its parent patent, the '163 patent. *See SAMSUNG-1002*, 56-70 (issuing a single Office Action with only a double patenting rejection over the '163 patent). Although the claims of the '597 patent are similar to the claims of the '163 patent, rubberstamping the '597 patent was not good enough because material errors occurred during examination of the '163 patent.

1. The Examiner Overlooked Important Disclosure in Choudhury

To start, the Examiner failed to appreciate relevant disclosure from the Choudhury reference asserted in Ground 2 of the petition. Choudhury was raised in the International Search Report of the PCT application to which the '163 patent claims priority and was cited as the first reference in the first information disclosure statement filed by the applicant during examination of the '163 patent. *SAMSUNG-1123*, 567-569.

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REFERENCE NUMBER	DOCUMENT NUMBER	ISSUE/PUBL. DATE	NAME	CLASS	SUB-CLASS	FILING DATE or 102 (e) DATE, IF APPROPRIATE
	1.	2015/0264617	Sep. 17, 2015	Choudhury et al.			Mar. 14, 2014

Although the Petition applies Choudhury's European counterpart (EP 2930997), the two references' disclosure is the same and the International Search Report referenced the European version of Choudhury. SAMSUNG-1123, 569; *compare* SAMSUNG-1009 with SAMSUNG-1114.

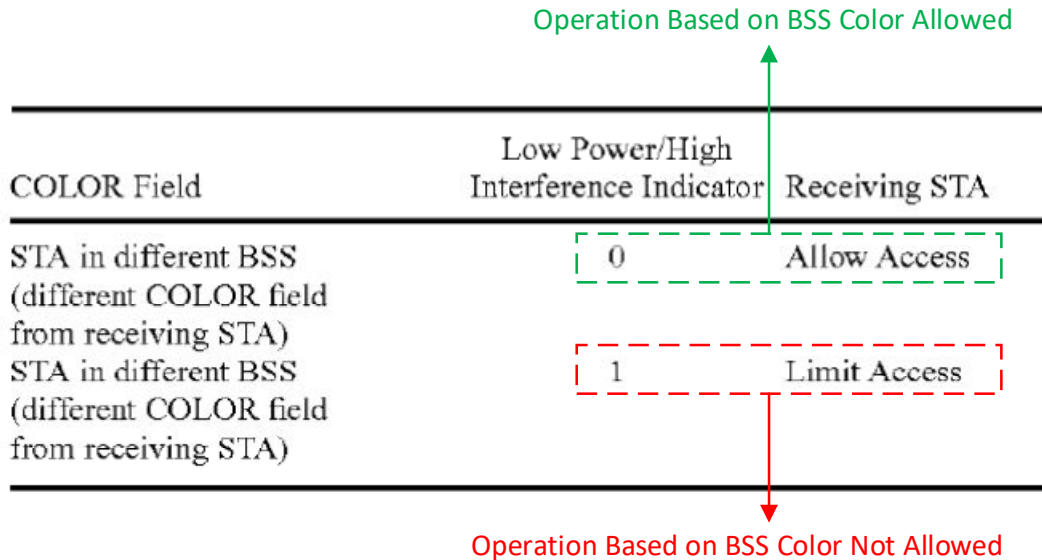
INTERNATIONAL SEARCH REPORT Information on patent family members			International application No. PCT/KR2017/002407
Patent document cited in search report	Publication date	Patent family member	Publication date
WO 2015-112780 A1	30/07/2015	US 2016-0174079 A1	16/06/2016
WO 2016-021792 A1	11/02/2016	KR 10-2017-0030564 A	17/03/2017
WO 2015-120488 A1	13/08/2015	EP 3061296 A1	31/08/2016
		US 2016-0353275 A1	01/12/2016
US 2015-0264617 A1	17/09/2015	EP 2930997 A1	14/10/2015

Version of Choudhury
Applied in Petition

The Examiner even searched for the US version of Choudhury. SAMSUNG-1123, 211.

S6	1	("20150264617").PN.	US-PGPUB; USPAT	OR	ON	2020/02/29 23:37
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Yet, despite Choudhury alone rendering obvious all features of claims 1, 7-9, 15, and 16 (*see* Petition, 43-62), the examination record lacks any substantive analysis or discussion of Choudhury in any rejection or Office Action. Specifically, the Examiner appears to have overlooked how Choudhury's Low Power/High Interference Indicator meets the feature argued to be missing from the prior art during examination—signaling information that indicates that an operation based on the BSS color is not allowed. As explained in the petition at pages 50-53, Choudhury's Low Power/High Interference Indicator is signaling information that controls whether operations based on BSS color are performed. Indeed, the US version of Choudhury includes the exact same table discussed at pages 51-53 of the petition showing how BSS color is used to "Allow Access" when the Low Power/High Interference Indicator is set to 0, but not when the Low Power/High Interference Indicator is set to 1. SAMSUNG-1114, [0043].



Worse, the Examiner failed to recognize that Choudhury describes the exact same embodiment—a BSS color value of 0—that the ’163 and ’597 patents use to indicate that BSS color should not be used.

The ’597 Patent (col. 21:25-39)

Specifically, the wireless communication terminal may transmit the PPDU by including signaling information indicating that the operation based on the BSS color is not allowed in the signaling field of the PPDU. At this time, the wireless communication terminal receiving the PPDU including the signaling information indicating that the operation based on the BSS color is not allowed may not perform the operation based on the BSS color. In a specific embodiment, the wireless communication terminal may transmit the BSS color value indicated by the signaling field of the PPDU by setting it to a predetermined value. At this time, the predetermined value may be a reserved value which is not used in the BSS color when the BSS color is selected by the AP. For example, the predetermined value may be zero.

Choudhury ([0043])

[0043] In a third exemplary variant, the COLOR field concept can be generalized to achieve the functionality of both the low power indicator and the COLOR field as defined by 802.11ah. For example, the first three bits of the COLOR bit can be used to set the basic service set identification (BSS ID) and the fourth bit can be used as a low power/high interference indicator. To take a more general view, the fourth bit may be seen simply as an indicator defining channel access. It can be set or cleared based on whatever appropriate criteria are desired, and may constitute a command to defer or allow access to a channel, not a specific indicator of device characteristics. It will be recognized, however, that the bit can be set for a low power device or a device causing or experiencing high interference so that it actually does serve as an indicator of device capability and network capacity can be defined to indicate network conditions or device characteristics. In addition or as an alternative, reserved values may be used for the entire 4-bit field. For example, 1111 may be used for low power devices or 0000 may be used for high interference devices. Every STA that could successfully decode these values could be required to defer channel access. The following table shows the functionality of the combined COLOR bit and low power indicator.

As explained in the petition at pages 53-54:

a COLOR field value of “0000” does not represent a valid BSS identifier, but rather serves as signaling information that BSS color-based operations should not be performed. SAMSUNG-1003, ¶172. When a device receives a PPDU with this reserved value, it cannot use the BSS color for its intended purpose of BSS identification because no valid BSS color has been provided. SAMSUNG-1009, [0025], [0029]; SAMSUNG-1003, ¶172. Accordingly, when the COLOR field is set to the reserved value of “0000,” it indicates that operations based on BSS COLOR are not allowed and the receiving STA does not use BSS COLOR.

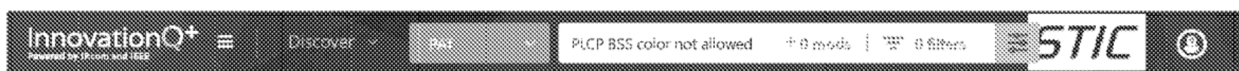
Id.

Because the Examiner missed these highly relevant disclosures in Choudhury, the Examiner erred in issuing the '163 patent and erred in relying on examination of the '163 patent in issuing the '597 patent. Compounding these errors, the exact same references were before the Examiner a second time during examination of the '597 patent and the Examiner missed Choudhury's disclosures again. SAMSUNG-1002, 92-93 (considering the International Search Report and Choudhury, but not applying or discussing them). Thus, Board resources should be dedicated to evaluating Choudhury and addressing the Examiner's errors.

2. *The Examiner Failed to Conduct an Adequate Search That Would Have Led to the Lee Reference*

In addition, a thorough search during examination of the '163 patent should have led the Examiner to the Lee reference (US 2017/0223731) asserted in Ground 1. The search record for the '163 patent reveals that, throughout examination, the Examiner focused too heavily on the specific claim language—"not allowed"—without considering and searching for other terms related to the same concept. Specifically, the Examiner repeatedly searched for "not allowed" and "allow\$4" without considering other related, relevant terms—such as "disabling" or "disable." *See* SAMSUNG-1123, 21, 24-27, 54-58, 106-112, 211-213. For the '597 patent, the Examiner just repeated the same searches used when examining the '163 patent. *See* SAMSUNG-1002, 73-79.

Exemplary Examiner Searches – '163 Patent



SAMSUNG-1123, 21.

L14	113	(((Basic adj Service adj Set) (BSS)) with color) with allow\$4	US-PGPUB; USPAT	OR	ON	2021/07/12 20:03
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SAMSUNG-1123, 24.

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L33	3	(PLCP PPDU perform\$4 operation BSS color information indicat\$4 allow\$4).clm.	US-PGPUB; USPAT	AND	ON	2021/07/12 20:57

SAMSUNG-1123, 27.

S177	104	(((Basic adj Service adj Set) (BSS)) with color) with allow\$4	US-PGPUB; USPAT	OR	ON	2021/05/08 10:32
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SAMSUNG-1123, 58.

S115	31	(((Basic and Service and Set) (BSS)) adj color) with (allow\$4)	USPAT	OR	ON	2020/12/22 00:15
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SAMSUNG-1123, 106.

S26	132	(((Basic adj Service adj Set) (BSS)) with color) same allow\$4	US-PGPUB; USPAT	OR	ON	2020/02/29 23:58
S27	69	(((Basic adj Service adj Set) (BSS)) with color) with allow\$4	US-PGPUB; USPAT	OR	ON	2020/02/29 23:58

SAMSUNG-1123, 213.

Exemplary Examiner Searches – '597 Patent

L200	2	(physical layer convergence Processing Data Unit Basic Service Set color allow\$4).clm.	(USPAT)	AND	ON	ON	2022/09/07 11:43 AM
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SAMSUNG-1002, 73.

L210	158	(((Basic adj Service adj Set) (BSS)) with color) with allow\$4	(US-PGPUB; USPAT)	OR	ON	ON	2022/09/07 01:40 PM
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SAMSUNG-1002, 76.

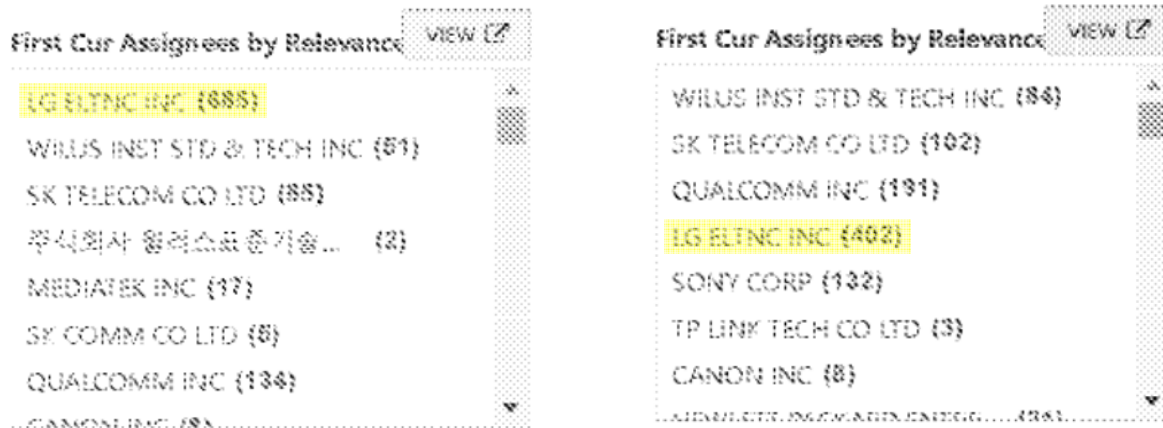
L233	313	(((Basic ADJ Service ADJ Set) (BSS)) WITH color) SAME allow\$4	(US-PGPUB; USPAT)	OR	ON	ON	2022/09/07 01:52 PM
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SAMSUNG-1002, 79.

Also, the concept of BSS Color disablement was well-known by the time the Examiner was searching for prior art in 2020 and 2021 for the '163 patent and in 2022 for the '597 patent. Indeed, the concept of a “BSS Color Disable Indication” was proposed in November 2016 and adopted in the 802.11 standard. *See* SAMSUNG-1119, 1-4 (“The BSS Color Disabled subfield indicates whether the transmitting AP recommends the associated STAs to disable the use of BSS Color”). The Examiner should have been familiar with standard developments in the technology relevant to the '163 and '597 patents and should have considered changes that occurred around the time and shortly after the priority applications for the '163 and '597 patents were filed. This is particularly true here since, in prosecuting the '163 patent in 2019, the applicant canceled all of its original claims and replaced them with completely new claims directed to different functionality than originally claimed. *See* SAMSUNG-1123, 256-261. Had the Examiner been aware of the standard developments related to BSS Color disablement (or had Wilus informed the Examiner of them), the Examiner could have searched for BSS Color disablement (e.g., a BSS Color Disable Indication) and would have easily found Lee, which clearly describes a BSS “coloring disable bit.” SAMSUNG-1005, Abstract.

The Examiner also could have found Lee by taking advantage of information provided to the Examiner during examination of the '163 patent. At multiple times during examination of the '163 patent, the Examiner was provided with data listing

the most relevant assignees. In each case, LG Electronics Inc. was listed as having by far the most prior art patent documents. SAMSUNG-1123, 64, 104.



First Cur Assignees by Relevance	VIEW 
LG ELECTRONIC INC. (888)	
WILUS INST STD & TECH INC (51)	
SK TELECOM CO LTD (85)	
주식회사 원리소프트기술... (2)	
MEDIATEK INC (17)	
SK COMM CO LTD (8)	
QUALCOMM INC (134)	
CANON INC (18)	

First Cur Assignees by Relevance	VIEW 
WILUS INST STD & TECH INC (84)	
SK TELECOM CO LTD (102)	
QUALCOMM INC (191)	
LG ELECTRONIC INC (402)	
SONY CORP (132)	
TP LINK TECH CO LTD (3)	
CANON INC (8)	
ALMULETS INC/WATSON INTEGG... (26)	

Yet, the record lacks any indication that the Examiner considered this information or did any specific investigation into prior art from LG Electronics Inc. *See* SAMSUNG-1002; SAMSUNG-1123. Since Lee is a published patent application assigned to LG Electronics Inc., had the Examiner investigated LG Electronics prior art as the assignee data suggested he should, the Examiner would have discovered the Lee reference, which alone renders obvious all features of claims 1, 7, 9, and 15 (*see* Petition, 5-17).

Because the Examiner overlooked highly relevant aspects of Choudhury's disclosure and failed to complete straight-forward search strategies that would have led to Lee, the Examiner erred in issuing the '597 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 9 at 9–10. 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 9 at 10-11, 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 9 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 (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 “[t]he trial date [June 1, 2026] is scheduled *six months* before the date of FWD (December 2, 2026).” Paper 9 at 12 (emphasis original). 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 *Fin-tiv* 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 9 at 13. Wilus contends that “even considering these statistics, the trial would still have already occurred several months (e.g., in September 2026) before the FWD in December 2026.” *Id.* at 14. But this is misleading and incorrect. Wilus filed its complaint asserting the ’597 patent on September 20, 2024. SAMSUNG-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 about two weeks before the FWD deadline.²

With a gap of only two weeks, 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 two weeks later—this factor receives little weight. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 15 (PTAB December 1, 2020).

To be sure, the prospect of the currently scheduled trial date being delayed is

² 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 six weeks of the Board’s deadline to issue a Final Written Decision.

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 2, 2025) are misleading. *See Paper 9* at 15-17. 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-1022. Specifically, Samsung filed a stipulation (SAMSUNG-1022) 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 9 at 19 (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 9 at 19–20 (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-1022 (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 in the art” may overlap with the prior art presented in the petition. Paper 9 at 20-22. 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 9 at 22 (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 “Samsung’s stipulation does not prevent duplicative grounds from being raised in the Co-Pending litigation” because “Samsung’s carefully crafted stipulation does not prevent the other Defendant, i.e., HP, from raising, in the district court, the same references used in this Petition.” Paper 9 at 21. 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).

Wilus's brief also glosses over a significant fact, namely that *Samsung has never included Choudhury (SAMSUNG-1009) in its invalidity contentions in District Court*. See WILUS-2008. Yet, Samsung relies on Choudhury in four out of the seven grounds presented in the petition, including as a single-reference ground. See Pet. 37-76. Wilus alleges that the petition's reliance on Choudhury is duplicative of the IEEE 802.11ah standard cited in Samsung's invalidity contentions. Paper 9 at 18–19. This is a mischaracterization. The petition simply explains that certain terms of art and concepts discussed in Choudhury's disclosure are defined by the 802.11ah standard. See, e.g., Pet. 54 (“Choudhury relies on the COLOR field as defined by 802.11ah ...”), 55 (“[T]he IEEE 802.11ah standard, cited by Choudhury, confirms that the COLOR field is used for BSS identification.”).

This is an ordinary and proper use of background art to provide context for Choudhury's disclosure—not an attempt to use a different reference to provide the same teachings, as Wilus contends. To be sure, the petition relies on Choudhury as providing elements not present in the 802.11ah standard. See, e.g., Pet. 50-54 (relying on Choudhury's specific teachings as providing element 1.4). Thus, there is no possibility of Samsung raising the same set of prior art or the same grounds in District Court as those raised in grounds 1D-2C, whether the IPR petitions are instituted or not. Accordingly, even from the earliest stages of the litigation and the IPRs,

Samsung has pursued alternative and non-overlapping invalidity grounds in each forum.

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 9 at 22. 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 '597 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 petitions include prior art grounds that have never been raised in the District Court (i.e., grounds 1D-2C based on Choudhury), and 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 9 at 24. 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 ’597 patent’s claims.

The Petition’s merits are strong, asserting two prior art references—Lee and Choudhury—that each alone render obvious all features of the independent claims. 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 LG, Qualcomm, and Nokia. A review of both the draft standard as of the ’597 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 '597 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 each of Lee and Choudhury 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. Mark P. Mahon. *See* SAMSUNG-1003. Dr. Mahon'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. Mahon’s “declaration is riddled with conclusory statements and is essentially a mirror image of the Petition.” Paper 9 at 24. This is not so. In fact, Dr. Mahon’s declaration “provide[s] helpful context [and] [] explain[s] terms of art.” WILUS-2004, 7 (Question No. 22). For example, Dr. Mahon provides corroborated testimony describing the state of the art of Basic Service Sets in the 802.11 (Wi-Fi) standard. *See* SAMSUNG-1003 ¶¶ 59-69 (citing corroborating exhibits 1019 and 1020). Dr. Mahon also provides corroborated testimony regarding how a POSITA would have understood the operation of a wireless communication terminal with respect to BSS color signaling and disablement mechanisms (SAMSUNG-1003 ¶¶ 86-93 (citing SAMSUNG-1001, SAMSUNG-1005)); and corroborated testimony regarding how BSS color was a well-known identifier of a BSS (SAMSUNG-1003 ¶ 90 (citing SAMSUNG-1006, SAMSUNG-1010, SAMSUNG-1011)). Additionally, Dr. Mahon provides detailed technical explanations supporting the petition’s proposed obviousness combinations and motivations to combine. *Id.* ¶¶ 104-109, 132-137, 144-149, 201-206, 225-230. Dr. Mahon’s robust testimony is confirmed and corroborated by more than a dozen third-party references. *See generally* SAMSUNG-1003 ¶ 27; Exs. 1005-1020.

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

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

Wilus contends that the ’597 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 9 at 2–3. Indeed, Wilus has brought patent infringement actions against other consumer device makers, including HP—Samsung’s co-defendant in the District Court litigation. Paper 9 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 ’597 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 2, 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 Oppositions to Patent Owner's Discretionary Denial Brief totals 8,740 words, which is less than the 14,000 words allowed under 37 CFR § 42.24.

Respectfully submitted,

Dated September 2, 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 2, 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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