

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 IPR2025-01069  
U.S. Patent No. 10,313,077

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

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SAMSUNG-1014	U.S. Patent Application Publication No. 2015/0139206 to Azizi et al.

SAMSUNG-1015 U.S. Patent Application Publication No. 2016/0127948 to Azizi et al. (“Azizi”)

SAMSUNG-1016 L-LENGTH Equation Update, IEEE submission document IEEE 802.11-15/1372 (Nov. 2015)

SAMSUNG-1017 U.S. Provisional Application No. 62/165,848 (“Bharadwaj-Prov848”)

SAMSUNG-1018 U.S. Patent Application Publication No. 2012/0177144 to Lee et al. (“Lee”)

SAMSUNG-1019 U.S. Patent Application Publication No. 2016/0286012 to Yu et al. (“Yu”)

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SAMSUNG-1021 U.S. Provisional Application No. 62/138,294 (“Yu-Prov294”)

SAMSUNG-1022 802.11ax Preamble Design and Auto-detection, IEEE submission document IEEE 802.11-15/0579 (May 10, 2015)

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SAMSUNG-1024 Coke Morgan Stewart, Interim Processes for PTAB Workload Management (Mar. 26, 2025)

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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,*  
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- SAMSUNG-1103 *Samsung Electronics Unveils a US\$200bn Investment Plan  
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- SAMSUNG-1104 *Samsung Electronics to Receive up to \$6.4 Billion in Direct  
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- 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  
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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),  
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- SAMSUNG-1114 U.S. Pat. App. Pub. No. US 2015/0264617 A1 (“Choudhury US Publication”)
- SAMSUNG-1115 Woojin Ahn et al., *Clarification on applying MU EDCA parameter set* (Nov. 9, 2016) IEEE 802.11-16/1425r1
- SAMSUNG-1116 Osama Aboul-Magd, *TGax November 2016 Meeting Agenda* (Sep. 30, 2016) IEEE 802.11-16/1310r5
- 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 November 2016 San Antonio Meeting Minutes* (Nov. 29, 2016) IEEE 802.11-16/1466r1
- 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)

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## I. INTRODUCTION

Samsung Electronics Co., Ltd. (“Samsung”) seeks review of 12 patents asserted against it by Wilus Institute of Standards & Technology Inc. (“Wilus”), including U.S. Pat. No. 10,313,077 (“the ’077 patent”). The factors set forth in the Office’s March 2025 memorandum (“Interim Processes for PTAB Workload Management”) 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 for the entire U.S. consumer electronics market as well.

As background, Wilus is a foreign non-practicing entity, which alleges to have developed a wide range of wireless communication technologies included in the latest generation of Wi-Fi, 802.11ax (or Wi-Fi 6). Wilus has accused Samsung and other consumer electronics makers of allegedly infringing 12 of its patents by implementing the new Wi-Fi 6 standard. Samsung has filed petitions for *inter partes* review of all 12 patents. The subject of this proceeding, the ’077 patent, is one of them. It relates to a wireless communication environment in which a legacy wireless communication terminal and a non-legacy wireless communication terminal coexist. But the ’077 patent is of a wholly distinct technical field in Wi-Fi communication

relative to the other 11 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: six 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 (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”).

Further, as discussed in more detail below, Examiner error occurred in the Office's issuance of the Wilus patents.<sup>1</sup> For the '077 patent, the Examiner overlooked highly relevant disclosures from the Bharadwaj reference, failing to recognize that Bharadwaj, alone and in combination with Yu, renders obvious the features of the '077 patent that led, in part, to allowance of the '077 patent. A better search of the prior art would have led the Examiner to well-known and defined methodologies such as those taught in the Bharadwaj reference. Had the Examiner adequately investigated prior art and properly applied Bharadwaj, the '077 patent would have never issued. 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;

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

- 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 Office as warranting use of PTAB resources. And each is applicable to the Wilus/Samsung dispute for reasons similar to prior cases where Acting Director Stewart 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 concerns about 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 Office's *Motorola* decision. And, as discussed below, the median time-to-trial statistics suggest trial after the FWD deadline for four of the asserted patents and within about six weeks for the other eight patents. With the statistics suggesting such a small gap (or none), and with Samsung's broad stipulation, the justifications identified throughout "tip the balance against discretionary denial." *Shenzhen Tuozhu Tech. Co., Ltd. v. Stratasys, Inc.*, IPR2025-00438, Paper 10 at 3 (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 more than a dozen 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 '077 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 '077 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 three additional considerations recited in the Office's Interim Processes memorandum of March 26, 2025, counsels in favor of

discretionary denial. Paper 8 at 8-29. However, contrary to Wilus’s contentions, as explained below, a holistic evaluation of the *Fintiv* factors and the additional considerations in the Interim Processes 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 ’077 patent is but one of 12 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 explains

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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.

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);

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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 '077 patent involves eight patents spanning five distinct families.

- 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. 2-5, 11-13 (presenting grounds which involve an analysis of the priority date of both the challenged patent and the asserted art); IPR2025-01043, Paper 2 at 2-4 (involving a priority analysis of the asserted art); IPR2025-00933, Paper 2 at 2 (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 the Wilus patents, including referring the present petition for adjudication on the merits.

**B. Wilus Has Little to No Settled Expectations in the '077 Patent or the Other Patents at Issue**

*1. The '077 Patent is Young, Having Been in Force Barely Six Years*

The '077 patent issued on June 4, 2019, and has thus been in force for six years. Because the '077 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 (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”); *see also Tanklogix v. Sitepro*, IPR2025-00650, Paper10 at 2 (PTAB Jul. 31, 2025) (“*Tanklogix*”) (“...the patents challenged in IPR2025-00650... have not been in force for a significant amount of time (issued in **2019**, ...). Accordingly, Patent Owner has not developed strong settled expectations that favor discretionary denial.”); *Berkshire Hathaway Energy Company, et al. v. Birchtech Corp.* (“*Berkshire Hathaway*”), IPR2025-00274, Paper 23, at 3 (PTAB July 2, 2025) (referring to the Board where Patent Owner had not developed strong settled expectations for the challenged patents that issued in **2019** and 2020); *Webgroup*

*Czech Republic , A.S. et al., v. Dish Technologies LLC.*, IPR2025-00467, Paper 14 at 2 (PTAB July 16, 2025) (“...the challenged patents have not been in force for a significant period of time (**2019**, 2021, 2022, and 2023), such that the Patent Owner has not developed strong settled expectations.”). Indeed, relative to the recent issuance, post grant challenges to such young patents have been consistently characterized as “early” and “favor[ing] robust, predictable patent rights and weigh[ing] against discretionary denial.” *See Tanklogix* at 3 (patent issued in 2019 deemed to “have not been in force for a significant amount of time.”).

Wilus also is still pursuing a continuation in this family (*see* U.S. Patent App. No. 18/913,806), 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 and future continuations and help ensure the examiners reach the correct patentability decisions in current and future Wilus applications.

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 27–28) are inapposite where, as here, the patents at issue have been in force for only a short period of time. The *Dabico* case cited by Wilus is based on a circumstance, not present here, that settled expectations had been

developed over a considerable 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 (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.” (Emphases 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 (June 26, 2025)), Wilus cites no authority for the converse proposition, namely, that the presence of such commercialization 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.

Wilus’s other 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 27 (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 ’077 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 (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 ’077 patent, Wilus points to an April 2022 demand letter (WILUS-2010) and an October 2018 list of references cited by the examiner during prosecution of a Samsung patent (WILUS-2011, WILUS-2012). Paper 8 at 27-28. This time frame is significantly shorter than other

decisions where the Office has found such notice relevant for purposes of determining settled expectations. *See, e.g., iRhythm Techs.*, Paper 10 at 3 (June 6, 2025) (finding that Petitioner's knowledge of a 13-year-old patent for over 12 years weighed in favor of Patent Owner's settled expectations). Moreover, while Wilus's demand letter lists the '077 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 only the patents at issue (as opposed to a much larger universe) 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 applications to the '077 patent, KR 10-2015-0092525 filed on June 29, 2015, and KR 10-2015-0117434 filed on August 20, 2015. On March 2016, after the filing of each of these Korean priority applications, the Working Group Chair expressly reminded participants of their duty to disclose relevant IP. *See* SAMSUNG-1116, 7-10; SAMSUNG-1118, 2. Subsequent TGax sessions held in May, July, and November 2016 and March 2017 continued to include Intellectual Property Rights (IPR) policy reminders, reinforcing the obligation to disclose. *See* SAMSUNG-1123, 7-10; SAMSUNG-1124, p. 2. Despite this, Wilus failed to disclose any patent rights. SAMSUNG-1118, 2; SAMSUNG-1124, p. 2.

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 2016 and 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; SAMSUNG-1123, 7-10. Wilus's failure to disclose its pending Korean applications that provide the alleged priority claim for the '077 patent violated this expectation of transparency. *See* SAMSUNG-1118, pp. 2-3; SAMSUNG-1124, p. 2.

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 and should have disclosed its rights when the Korean applications were published or issued, when the '077 patent was filed (December 26, 2017) or published (May 3, 2018), 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 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 Ampere Technology Ltd.*, IPR2025-00385, Paper 9 at 3 (July 2, 2025). Here, Samsung brings a timely challenge to young patents—six years old in the instant proceeding and *less than three and a half years old on average* across the 12 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*

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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; IPR2025-00936, Paper 11 at 16-24 addressing Examiner error in issuing asserted U.S. Pat. No. 11,700,597; and IPR2025-00934,

*Microsoft Corp. v. Partec Cluster Competence Cent. GmbH*, IPR2025-00318, Paper 9 at 3 (June 12, 2025); *Padagis US LLC v. Neurelis, Inc.*, IPR2025-00464, Paper 12 at 3 (July 16, 2025). Here, the Examiner erroneously allowed the application for the '077 patent after an incomplete search that failed to identify many of the most pertinent prior art references and a deficient examination that included no prior art rejections at all. Had the Examiner appreciated that the claims of the '077 patent were merely directed to conventional Wi-Fi technologies known long before the alleged invention, the application for the '077 patent never would have been allowed.

1. *The Examiner Erred in Allowing the Application for the '077 Patent Without Issuing Even a Single Prior Art Rejection, Thereby Overlooking Highly Relevant Prior Art Including Bharadwaj and Yu*

To start, the Examiner made *no prior art rejections* during original examination before deciding to allow the application for the '077 patent. Allowing the application at this early juncture of examination was a mistake because the Examiner had not even considered many of the most relevant prior art references to the '077 patent by the time of the allowance. This includes the prior art that forms

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Paper 10 at 17-33 addressing Examiner error in issuing asserted U.S. Pat. No. 11,159,210.

the basis of Ground 1A of Samsung's petition (i.e., Bharadwaj (SAMSUNG-1006) and Yu (SAMSUNG-1019)).

In allowing the claims, the Examiner offered the following reasons for allowance:

**Allowable Subject Matter**

4. Claims 1-14 are allowed over the prior art of record. The following is an examiner's statement of reasons for allowance: A search of the field of invention fails to provide any prior art that discloses features such as "...obtain information other than information on the duration of the non-legacy physical layer frame through a remaining value obtained by dividing the length information by a data size transmittable by a symbol of a legacy physical layer frame, wherein the data size transmittable by a symbol of the legacy physical layer frame is 3 octets when a data rate of the legacy physical layer frame is 6 Mbps, and determine the number of symbols of data of the non-legacy physical layer frame according to a following equation,

$$N_{SYM} = \left\lceil \left( \frac{L\_LENGTH + m + 3}{3} \times 4 - T_{HE\_PREAMBLE} \right) / T_{SYM} \right\rceil - b_{PE\_Disambiguitv}$$

..."

SAMSUNG-1002, 259

These features correlate to claim elements 1[d]/8[d] and 1[e]/8[e] in the Petition. Samsung's Petition presents a thorough and technically accurate analysis of these features of the claims using Bharadwaj alone or in combination with Yu, showing with specificity how each claim element is rendered obvious. Pet., 45-59. The Petition's mapping of these features highlights that the Examiner's allowance of the claims was based on an incomplete consideration of the prior art landscape. The Examiner allowed the claims without considering Bharadwaj or Yu (or any other reference equivalent to Bharadwaj's or Yu's disclosure), which clearly teaches

the subject matter deemed allowable by the Examiner. Had Bharadwaj or Yu been found and applied, the claims would have been rejected. The failure to identify and apply Bharadwaj or Yu, which presents commonly known equations for L\_LENGTH and Nsym, represented a material error in prosecution, as the allowance of the claims was not based on a complete or accurate consideration of the most relevant prior art.

2. *The Examiner Failed to Conduct an Adequate Search That Would Have Led to Bharadwaj, Yu, and Other Material Prior Art References*

The Examiner further erred in conducting a deficient search that failed to identify some of the most pertinent prior art references including Bharadwaj, Yu, Lee (SAMSUNG-1018), and relevant IEEE standards-based art. Notably, a total of just eight prior art references are cited on the face of the '077 patent as references considered by the Examiner. SAMSUNG-1001, Cover. But these eight references omit large swaths of prior art that, despite being clearly material to patentability, were never surfaced or appreciated by the Examiner in her search and never cited by Wilus. The Examiner's failure to cite any IEEE standards-based art indicates a failure of the Examiner to appreciate the context of the claimed technology and the fact that most aspects of the equation cited in the reasons for allowance were already known in IEEE standards documents before the '077 patent. The '077 patent itself repeatedly refers to the standards (e.g., IEEE 802.11ac, IEEE 802.11ax,.) and yet,

no IEEE document was cited. *See, e.g.*, SAMSUNG-1001, 11:58-14:34. Further, Wilus accuses Samsung of infringement based on adoption of the Wi-Fi 6 standard, and yet, Wilus brought none of the relevant IEEE art to the Office’s attention. *See* SAMSUNG-1004.

A proper search would have at least led the Examiner to the Bharadwaj and Yu references cited in the Petition. This is particularly true given the generic and well-known nature of what Bharadwaj and Yu contribute to the teachings. Specifically, Bharadwaj (through incorporation of Bharadwaj-Prov059) explicitly discloses examples for calculating  $L_{LENGTH}$  and  $N_{sym}$  using the following equations,

$$L_{LENGTH} = \left\lceil \frac{TXTIME-20}{4} \right\rceil \times 3 - 3 + m \text{ where } m = 1, 2$$

$$N_{sym} = \left\lceil \frac{\left\lceil \frac{L_{LENGTH} - m + 3}{3} \right\rceil \times 4 - T_{HE\_PREAMBLE}}{T_{SYM}} \right\rceil - SE_{disambiguation\_bit}$$

SAMSUNG-1007, [0051], [0048], [0056]-[0057]. Bharadwaj-Prov059 also discloses that the value of  $m$  is merely used to “ensure that  $L_{LENGTH}$  is not exactly a multiple of 3 and is therefore used to distinguish between IEEE 802.11ax and IEEE 802.11ac transmissions (e.g., auto-detections).” SAMSUNG-1007, [0051]-[0052]. Further, Yu (through incorporation of Yu-Prov428) discloses the following Length equation that *subtracts* a value of  $M=0, 1, \text{ or } 2$  depending on the signaling state:

$$\text{Length} = \frac{\text{TXTIME} - 20}{4} \times 3 - 3 - M, 0 \leq M \leq 2$$

SAMSUNG-1020, 16; SAMSUNG-1019, [0232]. Yu-Prov428 explains that this “L-LENGTH can imply three different states with the value of M without changing the operation of the legacy receiver” because “the legacy receiver [will] identify the same length (the same packet duration) because one OFDM symbol with the lowest rate includes 3 bytes data.” *Id.* The above noted  $L_{\text{LENGTH}}$  and  $N_{\text{sym}}$  equations are among the known equations taught and known in the art at the time of the '077 patent filing.

The search record reveals that the Examiner too narrowly searched for the claim language without considering and searching for other terms related to the same concept or even the concepts in general e.g., “length information.” For example, seen below is a search performed by the Examiner prior to issuing the notice of allowance on January 16, 2019.

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L4	43	legacy near signal\$4 near field and length with (nonlegacy or non near legacy)	US-PGPUB; USPAT	OR	ON	2019/01/07 06:00
L9	284	(l near sig or legacy near signal\$4 near field) with length same (he or high near efficiency)	US-PGPUB; USPAT	OR	ON	2019/01/07 06:08
L12	13	physical near layer near frame same length same (he or high near efficiency or nonlegacy or non near legacy)	US-PGPUB; USPAT	OR	ON	2019/01/07 06:11
L13	3293	(co near exist\$6 or coexist\$6) with legacy	US-PGPUB; USPAT	OR	ON	2019/01/07 06:12
L14	787	13 and (he or high near efficiency or nonlegacy or non near legacy)	US-PGPUB; USPAT	OR	ON	2019/01/07 06:12

SAMSUNG-1002, 269

The Examiner’s search terms, while including “length,” focused too heavily on other claim terms, e.g., “legacy near signal\$4 near field” or “physical near layer near frame.” This approach is insufficient to capture the use of length information to indicate information other than information on the duration of the non-legacy physical layer frame through a remaining value. The concept of using the length information in this way should have been considered in the Examiner’s search.

Indeed, the use of a remaining value applied to the  $L_{\text{Length}}$  equation to indicate information other than information on the duration of the non-legacy physical layer frame was also recognized by others in the field before the ’077 patent and was well-known by the time the Examiner was searching for prior art in January 2019. SAMSUNG-1010, [0017] (“a technique to identify each transmission as either a

HEW packet or a legacy packet is needed”), [0018]-[0020], [0024], [0036], [0038]-[0042], [0059]-[0060], [0063], [0065]; SAMSUNG-1012, [0057], [0068] (“a LENGTH field whose value is not divisible by 3 is a differentiating factor between for example, a WLAN 802.11ax and a WLAN 802.11ac frame”), [0073], [0080]-[0081]; SAMSUNG-1013, [0055]-[0056]; SAMSUNG-1014, [0039], [0077] (“determine whether a received frame is an HEW frame or a legacy frame based on whether a value in the length field of the L-SIG is divisible three”); SAMSUNG-1015, [0051]-[0052] (“The HEW device 104 needs a way to recognize HE packets and a way to indicate to legacy devices 106”); SAMSUNG-1018, [0078]-[0079]. The Examiner should have been familiar with and should have considered changes to the length information that occurred contemporaneously with the filing of the priority applications for the ’077 patent. Had the Examiner been aware of the developments related to length information (or had Wilus informed the Examiner of them), the Examiner could have searched for length information indicating information other than information on the duration of the non-legacy physical layer frame through a remaining value and would have easily found Bharadwaj and Yu, which clearly describe the length indicating information other than information on the duration of the non-legacy physical layer frame. SAMSUNG-1007, [0051]-[0052]; SAMSUNG-1020, 16; SAMSUNG-1019, [0232].

Finally, the cited Cooperative Patent Classification (CPC) codes searched by the Examiner did not cover the Bharadwaj or Yu reference. The Examiner's prior art search focused on codes H04L5/0048, H04L27/2602, H04L1/0079, H04L27/2613, H04L69/18, and H04L27/18 (SAMSUNG-1002, 269-270), which would not have resulted in the Bharadwaj or Yu reference because the Office had not classified Bharadwaj or Yu with these codes (SAMSUNG-1006, (52); SAMSUNG-1019, (52)). While the Examiner's interference search included H04W84/12, which may have included the Bharadwaj and Yu references, the number of results, e.g., 239 and 433, were too vast, demonstrating that the search was too broad and lowering the chances of the Examiner finding Bharadwaj, Yu, or a similar reference. Instead, focusing on the length information would have likely yielded better results. The lack of proper searching led to the lack of proper rejections of the features that led to allowance.

Because the Examiner overlooked highly relevant aspects of Bharadwaj's and Yu's disclosures and failed to complete straight-forward search strategies that would have led to Bharadwaj and Yu, the Examiner erred in issuing the '077 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*”).

*1. Factor 1: No Stay Has Been Requested*

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

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

have uniformly denied motions for a stay.” (emphasis added))). However, the critical inquiry under this factor is whether “evidence exists” that a stay will be “granted *if a proceeding is instituted.*” *Fintiv I*, at 6.

Wilus cites no case that precludes the possibility of a stay being granted in the Eastern District of Texas *after institution*. On the contrary, Wilus acknowledges, as it must, that EDTX does not automatically deny stays *after institution*, Paper 8 at 10-12, 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-1025) 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 baseless speculation on how “likely” it is for the District Court to grant a stay of the co-pending litigation. Paper 8 at 10-12. But motions to stay invoke fact- and case-specific considerations,

and it would be highly prejudicial to Samsung for adverse inferences to be drawn from rulings on stay motions being denied in different and unrelated cases. Indeed, for these reasons, the Board has repeatedly refused to “attempt to predict” how a District Court will rule on such stay motions. *See, e.g., Hulu, LLC v. SITO Mobile R&D IP, LLC*, IPR2021-00298, Paper 11 at 10-11 (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.”) (quoting *Fintiv I*); *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24 at 7 (June 16, 2020) (informative).

2. *Factor 2: The Court’s Trial Date is Speculative and the Evidence Strongly Suggests a Later Trial 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 FWD would be due almost seven months after the trial, on December 24, 2026.” Paper 8 at 12. But there is a wealth of evidence—including statistics cited by Wilus itself—establishing 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 14. Wilus contends, however, that “in accordance with Judge Gilstrap’s average time to trial, the trial would still have occurred several months before the FWD would be expected in December 2026.” *Id.* But this is misleading and incorrect. Wilus filed its complaint asserting the ’077 patent on September 11, 2024. SAMSUNG-1004. 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 about six weeks before the FWD deadline.<sup>4</sup>

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

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<sup>4</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 23, 2026—about eight weeks before the Board’s deadline to issue a Final Written Decision.

To be sure, the prospect of the currently scheduled trial date being delayed is significant given that Judge Gilstrap *currently has 10 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 none of the 10 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 10.

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.

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

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

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

Wilus’s assertions of the “substantial time and resources” that would be invested in the District Court as of the Decision on Institution (December 24, 2025)

are misleading. *See* Paper 8 at 14-17. 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.

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

*Fintiv* factor 4—which considers overlap between issues raised in the Petition and in the parallel proceeding—strongly favors institution. Samsung’s broad stipulation—even more sweeping than that made in *Sotera*—eliminates any potential overlap between this proceeding and Wilus’s district court action. *See* SAMSUNG-1025. Specifically, Samsung filed a stipulation (SAMSUNG-1025) providing that, if the PTAB institutes review, Samsung will not pursue in District Court litigation:

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

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

Wilus contends that a recent Federal Circuit decision holding that IPR estoppel does not preclude a petitioner from relying on prior art asserted in a petition

as evidence that the claimed invention was known or used by others, on sale, or in public use “at the very least suggests the possibility that Samsung could present in the district court precisely the same combinations of prior art references.” Paper 8 at 20 (citing *Ingenico Inc. v. IOENGINE, LLC*, 136 F.4th 1354, 1366 (Fed. Cir. 2025)). But the *Ingenico* decision 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-1025 (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 “knowledge of one of skill in the art” may overlap with the prior art presented in the petition. Paper 8 at 21-22. But this goes far beyond merely preventing overlap between the proceedings—it asks Petitioner to “forgo *any use of patents or printed publications as evidence of prior art*, whether alone or as a combination, and *under any ground*, including public use, public sale, and otherwise available to the public grounds.” Paper 8 at 23 (emphasis added). Neither *Sotera* nor *Motorola* ask this much of a petitioner, and neither should Wilus. Rather, Samsung has provided a “broad”

stipulation on par with those offered by the petitioners in *Tesla* and *Shenzhen*. See *Tesla*, Paper 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 the same references from being raised in the Co-Pending litigation by another Defendant [(HP)]” because “Samsung’s carefully worded stipulation does not prevent the art used in this Petition or similar prior art arguments to be made again in the Co-Pending Litigation.” Paper 8 at 21, 23-24. 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 (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 (June 25, 2025).

Finally, Wilus's argument that "Samsung's failure to address potential subsequent *ex parte* reexaminations in its stipulation is another reason it should be given little weight" has no merit. Paper 8 at 23. As an initial matter, Factor 4 concerns overlap between the IPR and a parallel proceeding, but no parallel *ex parte* reexamination exists in this case. This is because Samsung has never filed a request for *ex parte* reexamination on the '077 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 1A-2C based on Bharadwaj), 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.

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

*Fintiv* Factor 5—The parties are in this IPR are also parties in the co-pending Texas litigation.

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

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

Wilus makes a baseless assertion that “Petitioner failed to show a reasonable likelihood of success on any challenged claims.” Paper 8 at 24-25. Tellingly, however, Wilus failed to identify, let alone allege, even a single deficiency in the Petition’s analysis of the prior art grounds or their relevance to the ’077 patent’s claims.

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

In summary, a holistic evaluation of the *Fintiv* factors and other discretionary criteria discussed above strongly counsel against discretionary denial at least because this proceeding will allow a just and efficient resolution of the patentability

of the '077 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 the prior art combinations based on Bharadwaj 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. Zhi Ding. *See* SAMSUNG-1003. Dr. Ding'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. Ding's "declaration is riddled with conclusory statements and is essentially a mirror image

of the Petition.” Paper 8 at 25. This is not so. In fact, Dr. Ding’s declaration “provide[s] helpful context [and] [] explain[s] terms of art.” Paper 8 at 25 (citing Interim Process FAQ No. 22). For example, Dr. Ding provides corroborated testimony that POSITAs recognized that a remaining value applied to the  $L_{LENGTH}$  equation was commonly used to distinguish between IEEE 802.11ax and 802.11ac transmissions. *See* SAMSUNG-1003, ¶ 64 (citing corroborating exhibits SAMSUNG-1010, SAMSUNG-1012, SAMSUNG-1013, SAMSUNG-1014, SAMSUNG-1015). Dr. Ding also provides corroborated testimony regarding how a POSITA would have understood the operation of a wireless communication terminal with respect to calculations of  $L_{LENGTH}$ ,  $RXTIME$ , and  $N_{SYM}$ . SAMSUNG-1003, ¶¶ 66-68 (citing SAMSUNG-1007, SAMSUNG-1008, SAMSUNG-1010, SAMSUNG-1015, SAMSUNG-1019, SAMSUNG-1020). Additionally, Dr. Ding provides corroborated testimony that subtracting  $m$  in the  $L_{LENGTH}$  equation would have been within the knowledge and capability of a POSITA. SAMSUNG-1003, ¶ 69 (citing SAMSUNG-1018, SAMSUNG-1016, SAMSUNG-1006). Further, Dr. Ding provides detailed technical explanations supporting the petition’s proposed obviousness combinations and motivations to combine. SAMSUNG-1003, ¶¶ 63-73, 76-77, 81-83. Dr. Ding’s robust testimony is confirmed and corroborated by several third-party references. *See generally* SAMSUNG-1003 ¶ 38;

SAMSUNG-1008, SAMSUNG-1009, SAMSUNG-1011–SAMSUNG-1014,  
SAMSUNG-1016, SAMSUNG-1018, SAMSUNG-1022.

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

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

Wilus contends that the ’077 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 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, Wilus’s 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 substantial and ongoing investment (e.g., in US-made semiconductors) presents a compelling economic interest, and 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 ’077 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 Interim Processes 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 24, 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 8,996 words, which is less than the 14,000 words allowed under 37 CFR § 42.24.

Respectfully submitted,

Dated September 24, 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 24, 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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