

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC.,  
Petitioner,

v.

APEX BEAM TECHNOLOGIES LLC,  
Patent Owner

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Case IPR2025-00901  
U.S. Patent No. 11,374,721

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

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| APPLE-1005                | U.S. Patent Pub. No. 2017/0019930 A1 to Lee, et al. (“Lee”)                                                            |
| APPLE-1006                | U.S. Patent Pub. No. 2019/0320467 A1 to Freda, et al. (“Freda”)                                                        |
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| APPLE-1011                | First Amended Complaint, <i>Apex Beam Technologies LLC v. Apple Inc.</i> , 6:24-cv-00223, W.D. Tex., filed May 2, 2024 |
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| APPLE-1036 | Federal Court Management Statistics–Profiles, March 2025                                                                                                                                                                                                                                                                                                                                             |
| APPLE-1037 | CTIA, “5G in America.” <i>CTIA</i> , CTIA—The Wireless Association, <i>available at</i> <a href="https://www.ctia.org/the-wireless-industry/5g-in-america">https://www.ctia.org/the-wireless-industry/5g-in-america</a>                                                                                                                                                                              |
| APPLE-1038 | Expert Market Research, “Top 15 5 G Infrastructure Companies in the World   2025,” <i>Expert Market Research</i> , <i>available at</i> <a href="https://www.expertmarketresearch.com/blogs/top-5g-infrastructure-companies">https://www.expertmarketresearch.com/blogs/top-5g-infrastructure-companies</a>                                                                                           |
| APPLE-1039 | Bertenyi, Balazs, “3GPP system standards heading into the 5G era,” 3GPP (Jul. 16, 2014), <i>available at</i> <a href="https://www.3gpp.org/news-events/3gpp-news/sa-5g#:~:text=3GPP%20standards%20have%20played%20a,was%20finalized%20in%20December%202008">https://www.3gpp.org/news-events/3gpp-news/sa-5g#:~:text=3GPP%20standards%20have%20played%20a,was%20finalized%20in%20December%202008</a> |
| APPLE-1040 | China Academy of Telecommunications Technology (CATT). Draft Reply LS on NR QoE KPI Requirements. 3GPP TSG RAN1 Meeting #89, R1-1707475, 3GPP, 15-19 May 2017. <a href="https://www.3gpp.org">https://www.3gpp.org</a>                                                                                                                                                                               |
| APPLE-1041 | RESERVED                                                                                                                                                                                                                                                                                                                                                                                             |
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| APPLE-1043 | Papasakellariou, Aris, “Re: [98b-NR-Spec-NR_IOT-Core-213].” 3GPP TSG_RAN_WG1 Archives, 3 Nov. 2019, LISTSERV – list.etsi.org, <a href="https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_RAN_WG1;f8c17069.1911A&amp;FT=&amp;P=T&amp;H=&amp;S=">https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_RAN_WG1;f8c17069.1911A&amp;FT=&amp;P=T&amp;H=&amp;S=</a>                                              |
| APPLE-1044 | Draft Change Request: Introduction of Industrial IoT (NR_IOT-Core), 3GPP TS 38.213, Rel-16, 3GPP TSG-RAN WG1 Meeting #98bis, Chongqing, China, Oct. 14-20, 2019                                                                                                                                                                                                                                      |
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| APPLE-1047 | 3GPP TR 25.892 V6.0.0 (2004-06) Technical Report (3 <sup>rd</sup> Generation Partnership Project; Technical Specification Group Radio Access Network; Feasibility Study for Orthogonal Frequency Division Multiplexing (OFDM) for UTRAN enhancement (Release 6)) (“TR-25.892”).                                                                                                           |
| APPLE-1048 | “Apple Increases U.S. Commitment to \$600 Billion, Announces American Manufacturing Program.” Apple Newsroom, Apple, 6 Aug. 2025, <a href="https://www.apple.com/newsroom/2025/08/apple-increases-us-commitment-to-600-billion-usd-announces-ambitious-program/">https://www.apple.com/newsroom/2025/08/apple-increases-us-commitment-to-600-billion-usd-announces-ambitious-program/</a> |
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| APPLE-1050 | Machine Translation of Decision on Invalidation Request (No. 561927) concerning Chinese Patent No. CN108023616, China National Intellectual Property Administration, Patent Reexamination and Invalidation Examination Department (May 9, 2023)                                                                                                                                           |
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| APPLE-1058                | “Albright Worried Multipatent Trials Ask Too Much Of Jurors,” Law360 (Dec. 18, 2020), at <a href="https://www.law360.com/articles/1337976/albrightworriedmultipatent-trials-ask-too-much-of-jurors">https://www.law360.com/articles/1337976/albrightworriedmultipatent-trials-ask-too-much-of-jurors</a> |
| APPLE-1059                | Bifurcation Order – <i>Videolabs, Inc. v. Asustek Computer, Inc.</i> 6:22-cv-00720-ADA (WDTX)                                                                                                                                                                                                            |

## I. INTRODUCTION

Petitioner Apple Inc. (“Apple”) opposes Patent Owner Apex Beam Technologies LLC’s (“ABT”) Request for Discretionary Denial (Pap. 7, “Request”). ABT’s Request focuses largely on just two discretionary doctrines: (1) settled expectations, and (2) *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Pap. 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). But under all relevant considerations, denial of institution is simply inappropriate under either doctrine, and factors that were not addressed by ABT further demonstrate why *inter partes* review would constitute an efficient and otherwise appropriate use of Office resources.

Institution and merits review of the Asserted Patents provides timely clarity on the scope and validity of rights purported to cover 5G-standard implementations—clarity that enables efficient planning and capital allocation by U.S. manufacturers and investors. Apple is one of these U.S. manufacturers and investors, having recently announced a new \$100 billion U.S. investment through its American Manufacturing Program to build an end-to-end American silicon supply chain and to co-develop and manufacture cellular semiconductor components “crucial for 5G communications” with U.S. partners including Broadcom and GlobalFoundries. *See* APPLE-1048. This brings Apple’s four-year commitment to \$600 billion. If the Asserted Patents are found unpatentable, early

resolution avoids wasteful parallel litigation. And, even if found not unpatentable, by engaging in this validity investigation, the Board will provide certainty and guidance that informs U.S. manufacturers and investors. Either way, substantive engagement by the Board helps to inform scaling of U.S. production. In short, referral for merits review advances efficiency and the public interest by reducing friction and enabling informed investment in American manufacturing tied to 5G technologies.

As to settled expectations, the '721 patent has been in force for only four years, given its issuance in 2022. With so little time since issuance, there can be no reasonable claim of settled expectations, let alone strong settled expectations. *See Advanced Micro Devices, Inc. et al. v. Concurrent Ventures, LLC et al.*, IPR2025-00479 (“AMD”), Pap. 10, at 2 (PTAB Jul. 10, 2025) (“...the challenged patent issued in **2021**,<sup>1</sup> and Patent Owner has **not** developed strong settled expectations that favor discretionary denial”); *see also Microsoft Corporation v. Edge Networking Systems, LLC*, IPR2025-00617, Pap. 12 (PTAB Jul. 31, 2025) (a challenged patent issued in **2021** has “not been in force for a significant period of time”). Indeed, accounting for the recent issue date, Apple’s Petition is an “early challenge” that serves to promote “robust, predictable patent rights,” which

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<sup>1</sup> All emphasis has been added unless indicated otherwise.

“weigh[s] against discretionary denial.” *Microsoft Corporation v. Edge Networking Systems, LLC*, IPR2025-00617, Pap. 12 (PTAB Jul. 31, 2025) (“*Microsoft*”). Apple’s early challenge is presented under the backdrop of more favorable timing than IPR2025-00385, where the proceeding was referred to the merits panel despite trial predating the projected Final Written Decision (“FWD”) deadline by one month. *Zhuhai Cosmx Battery Co. LTD. v. NingDe Amperex Technology Limited*, IPR2025-00385, Pap. 9, at 2-3 (PTAB Jul. 2, 2025) (“*Zhuhai*”) (“[a]lthough there may be some inefficiencies with two proceedings operating in parallel, the early challenges to the patents tip the balance against discretionary denial”).

As to *Fintiv*, the trial in counterpart district court litigation<sup>2</sup> (“Litigation”) is scheduled to occur only after the Board’s deadline to issue a FWD. ABT does not suggest that the district court trial date will be accelerated. To the contrary, evidence establishes a reasonable expectation otherwise, as the median time-to-trial statistics for WDTX resolve to a trial date that is more than two months after the FWD deadline. *See* APPLE-1036, at 37. Further, Apple has eliminated the potential for inefficiencies and duplication by stipulating not to advance references

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<sup>2</sup> *Apex Beam Technologies LLC v. Apple Inc.*, Case No. 6:24-cv-00223-ADA-DIG (Apr. 29, 2024)

asserted in IPR grounds within invalidity grounds advanced in litigation if, and immediately upon, grant of institution, which confirms substantive PTAB review of the same. Notably, in this regard, Apple’s stipulation is consistent in scope with those endorsed for similar purposes. *See, e.g., Shenzhen Touzhu Technology Co. LTD v. Stratasy, Inc.*, IPR2025-00438, Pap. 10, at 3 (PTAB Jul. 17, 2025) (“*Shenzen*”); *Tesla, Inc. v. Intellectual Ventures II LLC*, IPR2025-00217 (“*Tesla*”), Pap. 9 (PTAB Jun. 13, 2025) (“*Tesla*”). Thus, if instituted, this proceeding would provide a true substitute for litigation.

The appropriateness of substantive PTAB review is reinforced by factors not addressed by ABT, for example: (1) the implicated ’721 patent is one of 17 patents asserted in co-pending litigation<sup>3</sup> (collectively “Asserted Patents”), and (2) *inter partes* review serves the public interest by enabling centralized review of the Asserted Patents, rather than forcing distinct validity challenges before the district court. *See* §III, *infra*; *Dabico Airport Solutions Inc. v. AXA Power APS*, IPR2025-00408, Pap. 21 (PTAB Jun. 18, 2025) (“*Dabico*”); *see Tessel, Inc. v. Nutanix, Inc.*, IPR2025-00322 (PTAB Jun. 12, 2025) (“*Tessel*”) (discretionary denial based on “unfair dealings” when petitioner employees were the inventors). When

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<sup>3</sup> Sixteen of the 17 patents asserted in the Litigation have been challenged in IPRs by Apple. The sole unchallenged patent is U.S. Pat. No. 11,457,426.

holistically assessed, the three reasons addressed in §III, *infra*, demonstrate why discretionary denial is not appropriate, and do so independently of ABT’s failure to justify application of discretion to deny institution.

More specifically, the Asserted Patents span 11 families covering diverse subject matter related to wireless technology. ABT acquired the Asserted Patents from two predecessors—Shanghai Langbo Communication Technology Company Ltd. (“Shanghai”) and PanPsy Technologies, LLC (“PanPsy”), which are identified in the table below:

|                                |                                                                                                                              |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Shanghai Patents<br>(10 of 16) | 10,912,081; 10,462,767; 10,568,113; 11,063,727;<br>11,374,721; 11,626,904; 10,944,527; 10,951,271;<br>11,917,581; 11,546,110 |
| PanPsy Patents<br>(6 of 16)    | 10,979,128; 10,986,695; 11,139,944; 11,637,615;<br>10,965,434; 11,108,639                                                    |

As recognized with respect to a dispute involving fewer patents, the “Board is better suited to review a large number of patents involving diverse subject matter.” *Tesla*, at 3; *see also Shenzen*, at 3 (“[t]he large number and vast scope of the patents asserted in the district court litigation weighs against discretionary denial, as the Board is better suited to review a large number of patents involving diverse subject matter”).

Beyond the large number of Asserted Patents, and the efficiencies gained by central review of them, ABT's suit against Apple implicates a broad array of technologies. ABT itself characterized the Asserted Patents as relating to "systems and methods for transmission schemes in wireless communication systems."

APPLE-1011, 13. This subject matter spans multiple technical areas within wireless communications, including paging, beam failure recovery, uplink cancellation, antenna virtualization, scheduling, listen-before-talk recovery, and multi-antenna transmission. *See id.*, 13-17. Given this and ABT's track record of filing serial lawsuits accusing widely adopted standard-based technologies, the PTAB resolving the patentability of the 17 patents would yield outsized efficiencies relative to dispute resolution through multiple district courts across multiple forums via serial lawsuits. *Berkshire Hathaway Energy Company, et al. v. BirchTech Corp.*, IPR2025-00274, Pap. 23, at 2-3 (PTAB Jul. 2, 2025) ("*Berkshire*") (finding that "resolving the dispute between the parties at the Office would be more efficient" where "litigation between the parties would proceed to several district court trials in different jurisdictions").

Finally, observations concerning the conduct of the patent applicants in their dealings with the U.S. Patent and Trademark Office during original prosecution reveal the appropriateness and need for the Office to conduct a substantive review, as requested. Neither Shanghai nor PanPsy participated in the formative 5G

standard-setting effort or contributed technical work to 3GPP's 5G standard. *See* APPLE-1047. Shanghai was founded in 2013—and PanPsy was founded even later in 2020. In offering what it advanced as enabling disclosure for the '721 patent, the named inventor(s) found it necessary to copy into the specification technical content that mirrors material authored and published by others throughout the 5G standard-setting process. Yet, the applicants neither informed the Office of the source of this content nor disclosed the existence of the underlying 3GPP work, despite its direct relevance to the subject matter described in the detailed description. This failure to cite and attribute such material deprived the Examiner of critical context that could have materially influenced patentability and inventorship determinations. In acquiring and prosecuting the Asserted Patents under these circumstances, ABT, its predecessors, and the named inventors engaged in conduct inconsistent with the advancement of the technological arts and the integrity of the U.S. patent system—further reinforcing why inter partes review is an appropriate use of Office resources. *See* §III.C, *infra*.

Based on a holistic assessment of the discretionary factors identified above (and further discussed in this Opposition), exercising discretion to deny institution is not appropriate in this proceeding.

## II. DISCRETIONARY DENIAL IS NOT APPROPRIATE

### A. Settled Expectations Should Not Lead To Discretionary Denial

#### 1. *The '721 Patent Has Been In Force For Less Than Six Years*

The '721 patent issued in 2022, and thus, has been in force for less than six years—not long enough to establish a legitimate claim to settled expectations, much less strong settled expectations. *See, e.g., AMD*, at 2 (“Additionally, the challenged patent issued in **2021**, and Patent Owner has not developed strong settled expectations that favor discretionary denial”), at 3 (“most of the challenged patents have not been in force for a significant period of time (issued in 2020, 2020, **2021** and 2024)” and “Patent Owner has not developed strong settled expectations that favor discretionary denial”); *Zhuhai*, at 2 (“the challenged patents have not been in force for a significant period of time (issued in 2024, 2023 and **2021**), and, accordingly, Patent Owner has not developed strong settled expectations that favor discretionary denial.”). 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 Micron Technology, Inc. v. Yangte Memory Technologies Co. Ltd.*, IPR2025-00190, Pap. 21 at 3 (PTAB Jun. 25, 2025) (patent issued in 2021 deemed “issued recently”).

2. *ABT's Recent Acquisition Of The '721 Patent Also Undermines ABT's Claim Of Settled Expectations*

ABT's recent acquisition of the '721 patent in 2022 also undermines any claim to settled expectations favoring discretionary denial. ABT's acquisition of the Asserted Patents occurred long after the PTAB became a common venue for efficiently resolving disputes over patent validity. By 2022, the PTAB's role was well-established, with over one thousand petitions filed that year alone to enable assessment and confirmation of validity across a wide range of technologies, including telecommunications. *See* USPTO, PTAB Trial Statistics FY2021. With reasonable diligence attendant to the patent purchase, ABT could not legitimately conclude that this patent would be free of inquiry into validity, much less free of such an inquiry in the PTAB, a forum created by Congress for precisely the same.

3. *ABT Plainly Misapplies Dabico Because It (1) Asserts Priority Date Creates Settled Expectations And (2) Overstates The Importance of Actual Notice*

Citing to *Dabico*, ABT argues that “strong settled expectations” exist because the '721 patent claims priority to a *foreign* application that was filed in 2017. Req., at 10. Despite its citation, ABT's argument is flatly inconsistent with *Dabico*. The relevant metric was patent issuance—not proclaimed priority to a foreign application. This stands to reason, as a patent owner cannot reasonably have settled its expectations on an unendorsed, unexamined application still subject to rejection by the Office. Issuance, rather than priority, is the right guidepost for

assessing settled expectations. ABT fails to identify any authority suggesting otherwise. Indeed, the challenged patent claimed priority to a series of applications with the earliest priority date in 2009. Yet, despite the presence of an earlier priority date—thus presenting an option between applying the issue date or an earlier priority date—the *Dabico* decision focused on the issue date.

The language used in *Dabico* further confirms that issue date controls for establishing settled expectations. There, because the challenged patent in *Dabico* had issued in 2017, it had “**been in force** almost eight years, creating settled expectations.” *See Dabico*, at 2. In other words, reference to “almost eight years” implicitly refers to the issue date of the challenged patent in relation to the date of the decision.

ABT further argues that Apple had actual notice of the ’721 patent since December 2022. *Req.*, at 10-11. ABT’s arguments, however, are inapposite, as *Dabico* makes clear that the distinction between actual notice and constructive notice is not meaningful. *Id.* at 3 (“As such, actual notice of a patent or of possible infringement is not necessary to create settled expectations.”). That is, in *AMD*, *Shenzen* and *Zhuhai*, all bearing on patents issued earlier than 2022, notice was assumed, and yet, settled expectations were not deemed to be strong nor referral denied. *AMD*, at 2 (challenged patent issued in 2021); *Shenzen*, at 3 (challenged patents issued in 2020, 2020, 2021 and 2024); *Zhuhai*, at 2 (challenged patents

issued in 2021, 2023 and 2024).

4. *Invalidation Of Related Chinese Patents Contradicts Any Settled Expectations By ABT*

Invalidation of Chinese patents related to a subset of the Asserted Patents also contradict ABT's settled expectations and instead confirm the public's settled expectation that challenged claims may be challenged as unpatentable. The China National Intellectual Property Administration (CNIPA) has fully invalidated the patent rights of Chinese counterparts of 6 of the Asserted Patents: U.S. Pat. Nos. 10,912,081 (CN111585736A, CN108882365B), 11,063,727 (CN108023616B), 10,462,767 (CN108923896), 11,917,581 (CN108923896), 10,944,527 (CN108155923), and 11,546,110 (CN108155923). *See* APPLE-1050; APPLE-1051; APPLE-1052; APPLE-1053; APPLE-1054.

The invalidation decisions were issued in May 2023—almost two years before the petition in this proceeding (and all related proceedings). In other words, ABT has been on notice of invalidating prior art before this proceeding, removing any possibility of settled expectations. There is no evidence that ABT has taken any further action despite being on notice of these invalidations. For instance, ABT has not asked the Office to reexamine any of relevant U.S. patents (10,912,081, 11,063,727, 10,462,767, 11,917,581, 10,944,527, 11,546,110) in light of the prior art considered in the Chinese invalidation proceedings.

**B. Discretionary Denial Under *Fintiv* Is Inappropriate**

As discussed below, holistic weighing of the *Fintiv* factors favor institution.

*Fintiv*, Pap. 11 (PTAB Mar. 20, 2020) (precedential).

*1. Factor 1—Neutral—No Stay Has Been Requested In the Litigation*

Because no motion to stay has been filed (Factor 1), the outcome of a motion to stay cannot be inferred, nor the existence of stay known. *Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Pap. 24, at 7 (June 16, 2020) (informative). This factor is therefore neutral.

*2. Factor 2—Favors Referral—The Final Written Decision is Likely To Issue Before The Scheduled Trial Date*

While ABT points to a scheduled trial date of December 7, 2026 (Req., at 6; Ex. 2001), ABT acknowledges the trial is scheduled to begin several weeks after the FWD deadline. And with so many patents asserted, it is likely that the patents would be tried in tranches—or not even tried at all—depending on how many patents actually remain by trial). Indeed, accounting for the median time-to-trial statistics in the Western District of Texas (WDTX), trial is more likely to occur in January 2027 or later—well after the projected FWD deadline of November 18, 2026. *See, e.g., Zhuhai Cosmx Battery Co., LTD., v. Ningde Ampere Technology Limited*, IPR2023-00587, Pap. 12, at 11 (PTAB Sept. 22, 2023) (considering statistical data showing delays in trial schedules when weighing proximity to

FWD). Even if trial were to conclude as scheduled, disposition of post-trial motions may take 9-10 months<sup>4</sup> such that final resolution of the Litigation would extend well beyond the FWD deadline. These trial and post-trial expectations tip Factor 2 against denial. Even if trial were to occur slightly before FWD (and there is no reason to believe that will occur here given the scheduled trial date), early challenge to recently-issued patents tip the balance against discretionary denial.

Indeed, in *Zhuhai*, a FWD was expected to issue one month *after* the trial in the counterpart litigation, and yet, discretionary denial was not deemed appropriate because “early challenges to the patents **tip the balance** against discretionary denial.” *Zhuhai*, at 2-3. Here, Apple’s Petition similarly represents an early challenge (within 6 years of issuance) to the ’721 patent, which tips the balance against discretionary denial, even if trial were to occur before the FWD and result in some inefficiencies with two proceedings operating in parallel.

Factor 2 therefore favors referral for merits consideration.

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<sup>4</sup> See, e.g., *ACQIS LLC v. ASUSTeK Computer, Inc.*, No. 6:20-cv-00966 (W.D. Tex.) (approximately 10 months between verdict in March 2024 and final judgment in January 2025), and *VideoShare, LLC v. Google LLC*, No. 6:19-cv-00663 (W.D. Tex.) (approximately 9 months from verdict in November 2021 to initial judgment in August 2022)

3. *Factor 3—Favors Referral—Minimal Relevant Investment By The Parties And Expeditious IPR Filing*

Investment in the district court proceeding remains low because discovery has not begun. This weighs against discretionary denial as IPRs can inform ongoing litigation. *See, e.g., Crowdstrike Inc. v. Webroot, Inc.*, IPR2023-00126, Pap. 9, at 10 (PTAB May 5, 2023) (early-stage investment weighs against denial).

ABT's own conduct confirms the lack of meaningful investment. Although it previously asserted the '721 patent against a different defendant, it took no steps to diligently prosecute its claims until filing suit against Apple. And in its suit against Apple, ABT delayed more than ten months in filing a Case Readiness Status Report (CRSR) after it was permitted under the court's Order Granting Procedure (OGP) to do so.<sup>5</sup> This abject failure, and refusal to move the Litigation forward, suggests ABT itself did not consider expeditious resolution of the '721 patent a priority, and it cannot now credibly argue that the district court proceeding reflects substantial investment.

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<sup>5</sup> ABT's timeline to file the CRSR was triggered by Apple's response to the complaint by July 19, 2024. ABT then delayed filing to May 20, 2025. This delay matters because the CRSR is the trigger for the WDTX patent OGP's milestones and deadlines.

Apple's Petition was also timely under § 315(b), and ABT fails to demonstrate any evidence of gamesmanship in any perceived delay of filing. Rather, the timeline to filing reflects Apple's good-faith efforts to engage in FRAND negotiations. Multiple IPRs also promote efficiency by addressing related patents cohesively.

*Fintiv* Factor 3 therefore favors referral for merits consideration.

4. *Factor 4—Favors Referral—Apple's Broad Stipulation Eliminates Overlap of Issues Between The IPR And The Litigation*

Apple has filed a broad stipulation that mitigates concerns about duplicative efforts, committing not to pursue in the Litigation any invalidity grounds based on printed publications or patents that could have been raised in the IPR. APPLE-1013. This stipulation extends beyond *Sotera* to include “combinations of the prior art references asserted as part of a ground in this proceeding with unpublished system prior art or any other type of prior art,” thereby avoiding duplication of effort and inefficiencies by ensuring minimal overlap even if litigation is not stayed upon institution. That is, the stipulation also addresses combinations of the prior art references asserted as part of a ground in this proceeding with system prior art, thereby addressing the efficiency concerns raised in *Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024-01205, Pap. 19, at 4 (PTAB Mar. 28, 2025) (“*Motorola*”).

*Fintiv* Factor 4 therefore favors referral for merits consideration.

5. *Factor 5—Neutral—The Parties Are The Same In The IPR and The Litigation*

While the parties in the Litigation are the same as here (Factor 5), this factor alone does not favor denial, particularly where, as here, the Petition demonstrates strong merits of unpatentability.

6. *Factor 6—Favors Referral—The Merits Of The Petition Are Strong*

As set forth in the Petition, the '721 patent claims are plainly unpatentable over Lee, Freda, and Ly. In contrast, during original examination, the Examiner allowed the application without issuing any rejection based on prior art, and there is no indication within the file history that allowance was based on any consideration of the prior art applied in the grounds advanced in the Petition. *See generally* APPLE-1002; APPLE-1003, ¶¶41–42.

*Fintiv* Factor 6 therefore favors referral for merits consideration.

7. *Holistic Evaluation Of All Factors*

As discussed above, each *Fintiv* factor is either neutral or favors referral, and thus, all *Fintiv* factors weigh against denial on discretion. Decisions on discretion recently issued in *Shenzen* and *Tesla* further confirm that it would be inappropriate to exercise discretion based holistic weighing of the *Fintiv* factors in this case.

More specifically, in *Shenzen*, petitioner's "broad stipulation" was found to

weigh against discretionary denial given a complex counterpart litigation involving nine patents spanning six distinct families. *Shenzen*, at 3. In *Tesla*, the petitioner similarly filed a “broad stipulation” in relation to a counterpart litigation involving eleven patents spanning nine different families. *Tesla*, at 2-3. The facts are even more favorable in this proceeding, as Apple has filed a stipulation of similar scope as those filed in *Shenzen* and *Tesla*, and yet, the counterpart litigation is even more complex, involving more (17) asserted patents (16 of which have been challenged in IPRs) spanning across more (11) distinct families.

Compared to *Tesla*,<sup>6</sup> discretionary denial is even less appropriate than in this proceeding for at least two additional reasons:

(1) In *Tesla*, the scheduled trial date unambiguously preceded the FWD by about two months. In contrast, trial in the present proceeding is scheduled after the FWD; and

(2) In *Tesla*, the parties had progressed further in litigation, with the

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<sup>6</sup> The court has indicated it does not believe that it is fair to a jury to consider more than three patents at a time. *See* APPLE-1058; *see also* APPLE-1059 (example of bifurcation order delineating larger case into tranches). A trial for any given patent across the seventeen patents is therefore likely to occur later than the currently scheduled date.

*Markman* Hearing scheduled three months prior to the expected date of an institution decision. In the present proceeding, the parties have substantially less investment in the Litigation, with the *Markman* hearing not scheduled until November 21, 2025, after the November 18, 2025 due date for a decision on institution in this proceeding.

### **III. *INTER PARTES* REVIEW IS AN APPROPRIATE USE OF OFFICE RESOURCES**

Referral of institution is further appropriate because, as *Dabico* confirms, the application of discretion turns in part on whether instituting review represents an appropriate use of Office resources. Here, various factors discussed, particularly below, make that showing clear. Together, these factors confirm that this proceeding is not only appropriate for PTAB review, but also a prudent use of the Office's resources.

#### **A. Complex Litigation Makes The PTAB Better Suited To Adjudicate Validity**

##### *1. The Litigation Involves 17 Different Patents*

As noted previously, the Litigation involves 17 patents spanning 11 distinct families, and each of these patents have been in force for less than six years. These circumstances present “a large number” of patents and thus, “the Board is better suited to review” their validity. *See Tesla*, at 3 (litigation involving 11 patents spanning 9 different families). *See also Tesla, Inc. v. US Navy*, IPR2025-00341

(“*Tesla IP*”), Pap. 12, at 2 (PTAB Jun. 13, 2025) (same); *see also Shenzhen*, at 3 (litigation involved 9 different patents spanning 6 different families). The present dispute therefore involves more patents spanning more families than the counterpart litigations implicated in *Tesla*, *Tesla II*, and *Shenzhen*. Asking a jury to consider such a large number of patents within a single trial is consequently even more unreasonable presently than doing so in each of *Tesla*, *Tesla II* and *Shenzhen*. Simply put, the PTAB is better suited to review the validity of these patents. For this reason alone, *inter partes* review in this proceeding is an appropriate use of Office resources.

2. *The Litigation Involves Patents With Diverse Subject Matter*

Beyond the large number of patents implicated, the Litigation is also complex. The technical subject matter spans multiple, distinct technology aspects. This diversity is reflected in 14 distinct base prior art references being applied across the IPR proceedings, each of which further incorporates different prior art combinations tailored to the specific claim limitations at issue. Such variation underscores that the patents do not present a single, unified invalidity theory, but instead require separate and highly technical analyses of discrete functionalities—ranging from physical layer signaling techniques to higher-layer protocol operations. This fragmentation of issues makes it impractical for a lay jury to resolve the full scope of validity disputes in a single trial, while reinforcing that the

PTAB, with its technical expertise and ability to adjudicate multiple parallel proceedings, is uniquely equipped to handle the breadth and complexity of these claims efficiently and consistently.

**B. Substantive *Inter Partes* Review, Available Only Upon Referral, Would Yield Significant Efficiencies**

The PTAB is uniquely situated to provide efficient review of the '721 patent given the complex validity issues not only at issue in this proceeding, but 18 others implicating other Asserted Patents in the Litigation. *Inter partes* review in this proceeding (and the 18 other proceedings) thereby serves the public interest by centrally settling patent validity, rather than forcing distinct validity challenges before the district court. This promotes the AIA's objectives of improving patent quality and reducing unwarranted litigation burdens on the public and industry participants. *See* 35 U.S.C. § 311; H.R. Rep. No. 112-98, pt. 1, at 48 (2011) (noting role of IPR in providing "a quick and cost effective alternative[] to litigation").

Such centralized review is crucial because ABT's track record demonstrates a propensity to assert the patents against adopters of widely adopted standards-based technology. ABT has already established a pattern of aggressive enforcement of the '721 patent and related patents. It has also contended that supporting this 5G standard implicates its patents, and it has repeatedly filed

lawsuits targeting companies that make products that do so. The high likelihood of future assertions against entities supporting related wireless communication technologies and the underlying wireless communications standard reinforces the importance of validity investigation of the '721 patent and related patents. Indeed, in enforcing the Asserted Patents, ABT simply accuses the practice of the 5G standard, and it has already filed 6 distinct district court litigations. Further litigation is, therefore, more than reasonably likely, and addressing validity at the PTAB would serve to resolve a key question that will otherwise need to be addressed multiple times over, in less efficient forums that do not bring the benefit of perspective from highly technical PTAB judges.

According to the Cellular Telecommunications Industry Association (CTIA), the 5G standard, to which ABT claims its patents are essential, is used “all over the country” to “create the future and enhance America’s economic competitiveness” across multiple critical industries, such as healthcare and transportation. *See* APPLE-1037. Institution of this proceeding thereby resolves validity, and in doing so, helps create greater predictability for practicing entities within this technology domain. It further creates significant downstream efficiencies for the Patent Office, the courts, and the public by resolving validity once and for all at a single time in a single forum.

Given the ubiquitous nature of 5G—a global standard supported by billions

of devices—the risk of further litigation on this patent is not speculative. It is reasonably foreseeable because patent litigation against companies offering products that support 5G and similar standards has been both serial and prolific. Beyond Apple, numerous other companies manufacture or implement 5G devices, including but not limited to those against whom the patent has been asserted thus far. In alleging infringement by Apple, ABT mapped its asserted patents (including the '721 patent) to “5G standards” and then further identified alleged supporting entities, including “Samsung, TCL, OnePlus, and ZTE...” APPLE-1015, 12 (citing email correspondence from ABT’s Managing Director to Apple counsel). These statements reveal ABT’s belief that the '721 patent implicates broad adoption by companies for allegedly infringing activity, which have not yet been subject to suit. *See* APPLE-1038. ABT itself has therefore highlighted that its asserted patents, including the '721 patent, purport to cover 5G features. *Id.*

Finally, *inter partes* review of this proceeding is also consistent with recent discretionary guidance regarding counterpart litigation that “would proceed to several district court trials in different jurisdictions...” *Berkshire*, at 2-3. There, such litigation resulted in *inter partes* review being deemed to represent an efficient use of Office resources. ABT’s serial litigation activity suggests Apple will not be the last defendant accused of infringement. ABT’s assertion of 17 patents, therefore, both in the Litigation and any future litigations against

companies supporting 5G wireless communication technology is likely to span multiple district court trials across multiple jurisdictions. Under these circumstances, “resolving the dispute between the parties at the Office would be more efficient.” *Berkshire*, at 2.

**C. Applicant’s Failure to Attribute Third Party Technical Work Warrants *Inter Partes* Review**

*Inter partes* review is also an appropriate use of Office resources in the instant case because, in acquiring the Asserted Patents (including the ’721 patent), ABT, its predecessors, or named inventors conducted themselves in a manner that impeded the substantive examination of the subject patent by the examiner, thus compromising the integrity of this patent and, for that matter, the integrity of the U.S. Patent System.

ABT’s predecessors—Shanghai and PanPsy—did not originate technical content underlying the Asserted Patents. *See, e.g.*, APPLE-1042; APPLE-1043; APPLE-1044; APPLE-1045; APPLE-1046; APPLE-1047. Instead, they gained access to publicly available technical materials developed by others, incorporated that content into their applications, and presented them to the Office, passing them off as their own without attribution or disclosure of true origin. By failing to inform the Office that the claimed subject matter was derived from prior technical developments authored by third parties, Shanghai and PanPsy deprived the

handling examiner of context that should have been made available to inform a fulsome search for prior art and consideration of patentability, both substantively and regarding inventorship. This conduct is unhelpful, and it threatens the integrity of the patent system, which relies on applicants to disclose material information and claim only what they have truly invented.

Recent decisions on discretion highlight the importance of equity-based considerations in assessing whether to allocate the limited resources of the Office to substantive consideration of IPR grounds that present a basis for unpatentability, e.g., party conduct rising to unfair dealings have been deemed pertinent to the exercise of discretion because such conduct reflects whether *inter partes* review represents an appropriate use of Office resources.<sup>7</sup> While the facts in these

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<sup>7</sup> In *Analog Devices, Inc. v. Number 14 B.V.*, IPR2025-00550 (PTAB Jul. 16, 2025) (“*Analog Devices*”), a party’s use of Patent Office resources to apply for and be issued a patent was deemed to preclude later use of Office resources by that same party to advocate for unpatentability of the issued patent. Similarly, in *Tessel*, denial was based on “unfair dealings” when petitioner employees were the inventors. And in *Realtek Semiconductor v. Parkervision*, IPR2025-00324, Pap.

decisions happened to implicate petitioner conduct, the theories implicate fairness more generally and beg for considerations of fairness in relation to the conduct of petitioners and patent owners, as it relates to a decision on whether to exercise discretion in denying institution.

Here, tactics by ABT's predecessors call into question the quality of prosecution earlier performed, and despite this flowing in part from patent applicant conduct, it nevertheless demonstrates that Office resources would be well spent in referring this petition for substantive review of its grounds, if only to promote patent system integrity.

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11, at 2-3 (PTAB Jun. 25, 2025), "fairness" and "equity" were invoked to limit joinder for time-barred petitioners, allowing it only in "exceptional circumstances."

#### IV. CONCLUSION

For the reasons set forth above, Apple requests denial of Patent Owner's Request for Discretionary Denial.

Respectfully submitted,

Date: August 18, 2025

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**CERTIFICATION UNDER 37 CFR § 42.24(d)**

Under the provisions of 37 CFR § 42.24, the undersigned hereby certifies that the word count for the foregoing Petitioner's Opposition to Patent Owner's Request for Discretionary Denial totals 5,243 words, which is less than the 14,000 allowed under 37 CFR § 42.24.

Respectfully submitted,

Date: August 18, 2025

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**CERTIFICATE OF SERVICE**

Pursuant to 37 C.F.R. § 42.6(e)(4), the undersigned certifies that on August 18, 2025, a complete and entire copy of this Petitioner's Opposition to Patent Owner's Request for Discretionary Denial and all supporting exhibits were provided via email to the Patent Owner by serving the correspondence email addresses of record as follows:

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