

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS
AMERICA, INC., SAMSUNG SEMICONDUCTOR, INC., and SAMSUNG
AUSTIN SEMICONDUCTOR LLC,

Petitioners,

v.

W&WSENS DEVICES INC.,

Patent Owner.

Case No. IPR2025-00994
U.S. Patent No. 11,621,360

**PETITIONERS' OPPOSITION TO PATENT OWNER'S REQUEST FOR
DISCRETIONARY DENIAL OF INSTITUTION**

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I. INTRODUCTION

The Director should reject W&WSens Devices Inc.’s (“W&W”) discretionary denial request (Paper 10, “DD Req.”). First, the parties’ settled expectations weigh against denial. The ’360 Patent is young—issuing less than three years ago. The Director routinely denies requests for such young patents. Its issuance date was also years after W&W sent a handful of unsolicited communications in 2019-2020 related to merger/acquisition (“M&A”) requests, so W&W’s settled expectations argument based on these communications makes no sense. And, regardless, Petitioners had an expectation of non-enforcement based on the nature of the communications. Even more, all but one patent Petitioners challenge—including the ’360 Patent—did not exist at the time of the first communications in 2019. The Director should refer each petition for institution because the patents are young and because the Board is best suited to address their complex semiconductor technology.

Second, the *Fintiv* factors, on balance, weigh against denial. The evidence shows that a stay is likely upon institution. The median time-to-trial and trial judge’s specific time-to-trial place trial slightly before the last possible final written decision (“FWD”) date. However, the Board typically issues institution and FWDs early, putting the Board’s resolution at or slightly before trial.

Third, W&W’s arguments regarding 35 U.S.C. § 325(d) are incorrect and, in some cases, only serve to highlight material errors during prosecution of the

application that issued as the '360 Patent. The Director should refer this Petition to the Board on the merits to correct the errors.

II. SETTLED EXPECTATIONS SUPPORT REFERRAL

The “settled expectations” of the parties weigh against denial because (1) W&W admits that it has not previously licensed, enforced, or commercialized the '360 Patent; and (2) Petitioners’ products were on the market years before the '360 Patent and other patents issued.

A. The Ages of the '360 Patent and Other Challenged Patents Favor Referral, Not Denial

W&W argues that it has “strong settled expectations” in the '360 Patent based on the age of the '360 Patent and other challenged patents, alleged “notice of the '360 Patent” to Samsung, and supposed investments in the “inventions of the '360 Patent.” DD Req. 3-7. None withstand scrutiny.

1. The Ages of the '360 Patent and Other Challenged Patents Do Not Favor Denial; They Instead Favor Referral

The '360 Patent issued April 4, 2023, less than three years before the expected discretionary denial decision date. The insignificant age of the '360 Patent favors referral. *See Embody, Inc. v. LifeNet Health*, IPR2025-00248, Paper 13 at 2-3 (Director June 26, 2025) (stating that a patent issued in 2022 “has not been in force for a significant period of time”); *Tesla, Inc v. Charge Fusion Techs., LLC*, IPR2025-00153, Paper 11 at 2-3 (Director June 12, 2025) (“Early challenges to [a 2023-issued

patent] favor[s] robust, predictable patent rights and weigh against discretionary denial.”). The other challenged patents change nothing.

The ’871 Patent issued September 2024 (IPR2025-00993) and the ’948 Patent issued March 2025 (PGR2025-00082)—each less than two years before the expected discretionary denial decision date. And the ’700 Patent (issued in late 2019; IPR2025-00996) and ’543 Patent (issued in late 2019; IPR2025-00995) each issued less than or around six years before the same expected date. The Director has found that similarly young patents “have not been in force for a significant period of time . . . , and, accordingly, Patent Owner has not developed strong settled expectations,” which weighs against denial. *See, e.g., Cambridge Indus. USA, Inc. v. Applied Optoelects., Inc.*, IPR2025-00434, Paper 11 at 2-3 (Director June 26, 2025) (stating that a patent issued in 2019 “ha[d] not developed strong settled expectations”); *Berkshire Hathaway Energy Co. v. Birchtch Corp.*, IPR2025-00274, Paper 23 at 2-3 (Director July 2, 2025) (finding same for patents that “issued in 2019 and 2020”).

Although W&W argues that U.S. Patent No. 9,525,084 (IPR2025-00997) “issued close to nine years ago” (DD Req. 4-5), the parties have since agreed to dismiss the ’084 Patent from the related litigation and to jointly move to terminate the related IPR. Ex. 1088; Ex. 1089. The issuance date of the ’084 Patent is thus no longer relevant. Even if it was, the slightly older ’084 Patent cannot overcome the lack of settled expectations for the five related patents, three of which issued in 2023

or later. *Embodiment*, IPR2025-00248, Paper 13 at 2-3 (finding lack of strong settled expectations as to younger patent and that it is an efficient use of Board resources to address a slightly older related patent too).

The case W&W cites (*Samsung Elecs. Co. v. iCashe, Inc.*) is inapposite. DD Req. 3. There, the petitioner challenged seven patents, five of which issued between 2013 and 2016, while two patents issued in March 2022 and July 2023. Even though the two younger patents “ordinarily ... might counsel against discretionary denial,” the Director denied institution because, in part, it would be an “inefficient use of Board resources” to review two patents while the district court considers the other five patents (which issued nearly nine or more than nine years ago). IPR2025-00639, Paper 11 at 2-3 (Director Aug. 14, 2025). This case is different. Here, three challenged patents issued in 2023-2025 and two patents are less than or around six years old. These differences counsel against discretionary denial.

2. W&W’s Alleged “Notice” Fails

W&W cannot dispute that *none* of its unsolicited LinkedIn messages (Exs. 2001-2004) identify the ’360 Patent because W&W did not file the ’360 Patent until two years after communication ceased. Moreover, the ’360 Patent is a continuation-in-part of an application filed in 2021—post-communications—so it contains additional subject matter that Petitioners could not have known about at the time of communication. Petitioners could not have challenged the ’360 Patent

because neither it nor its application existed.

W&W instead alleges that it “continued to” communicate with “four executives at Samsung” in 2019-2020 for “over a year.” DD Req. 4. It did not and its brief communications weigh against discretionary denial. W&W stopped communicating with Mr. Schuessler in April 2019. *See* Ex. 2001. Mr. Deane explained that he was “no longer directly linked with Samsung VC funds,” and there is no evidence that anyone at Petitioners received any communications from him. Ex. 2003, 6. Exhibits 2002-2003 also show there were no communications between April 2019 and August 2019 or between August 2019 and February 2020.

Even if W&W were correct that it communicated with these people for “over a year,” W&W cannot credibly allege that any of its communications provides notice of the then non-existent ’360 Patent that is a CIP of another later-filed 2021 application. *See* DD Req. 4 (relying on “February 20, 2020” date).

Moreover, the two February 2020 emails appended to Exhibits 2002 and 2003 were sent to *non-Samsung* email addresses, making it unclear whether they were even received or opened by the recipients, let alone made it to Petitioners (or that the email addresses are correct). Ex. 2002, 9; Ex. 2003, 13. Mr. Ting also stated that he “do[esn’t] open unsolicited presentations.” Ex. 2004, 4.

Even taking W&W’s representations as true, Petitioners had no expectation of being sued. W&W admits that it “has not offered for sale or sold any product that

embodies any claim of any of the Asserted Patents, nor has it licensed the Asserted Patents to any third party” (Ex. 1087, Compl. ¶36), which weighs against denial. *See, e.g., Intel Corp. v. Proxense LLC*, IPR2025-00327, Paper 12 at 2-3 (Director June 26, 2025) (explaining that “a patent may have been in force for years but ***may not have been commercialized, asserted, marked, licensed, or otherwise applied in a petitioner’s particular technology space, if at all,***” may “***weigh against a patent owner’s claim of settled expectations***”); *cf. Home Depot U.S.A., Inc. v. H2 Intellect LLC*, IPR2025-00480, Paper 11 at 2-3 (Director Sep. 4, 2025) (finding that the expectation that patents would not be asserted against petitioner weighed against discretionary denial). Nor has W&W asserted any challenged patent in any previous litigation, which also weighs against denial. Ex. 1081; *see Intel*, IPR2025-00327, Paper 12 at 2-3; *Shenzhen Tuozhu Tech. Co. v. Stratasy, Inc.*, IPR2025-00438, Paper 10 at 3 (Director July 17, 2025) (finding lack of commercialization, assertion, marking, or licensing “weighs against Patent Owner’s claim of strong settled expectations” even though the patent “has been in force for approximately 10 years”).

W&W’s evidence also shows that ***all*** communications were for the purpose of “engaging in M&A discussions” and referred the recipients to a broker at “Bank of America Merrill Lynch” for M&A discussions. Ex. 2001, 2; Ex. 2002, 2; Ex. 2003, 1-2; Ex. 2004, 2. None of these communications ever suggested enforcement, that Samsung used W&W’s technology, or that Samsung infringed any patent.

Petitioners, by contrast, had strong expectations that they would not be sued based on the M&A communications, outweighing any expectations of W&W. For example, Samsung released many of the now-accused sensor features in 2014-2018. Samsung released the earliest of these before any challenged patent was filed and the latter of these before four patents were filed and before all but one patent issued. *See* Ex. 1084; Ex. 1087, Compl. ¶49 (accusing sensors in Ex. 1084); Exs. 1085-1086. If W&W truly believed Samsung infringed, it should have said so earlier. Discretionary denial is therefore not appropriate where, as here, the circumstances of the communications—related to M&A talks, funding, or sale through a broker—led Petitioners to “not expect enforcement” of the patents. *Apple Inc. v. Allani*, IPR2025-00856, Paper 11 at 3 (Director Sep. 5, 2025); *see also Intel*, IPR2025-00327, Paper 12 at 2-3.

W&W argues that Petitioners should have challenged the '360 Patent in February 2020 because W&W requested M&A talks. DD Req. 4. This is disingenuous because the '360 Patent's application had not even been filed, let alone granted, making any challenge impossible. Furthermore, it makes no practical sense in this case. For companies, such as startups, patents and IP protection improve the chances of venture capital investment and future acquisition. Expecting recipients of their partnership/M&A requests to respond immediately with IPR challenges would harm patent owners, especially smaller entities, by clouding patent portfolios for 18

months of IPR proceedings, and could chill the M&A market. It would also result in high costs—although less than litigation—for these companies, diverting needed funds away from their business. It makes no sense for W&W to argue that Petitioners should have hindered W&W’s “process of selling the company.” Ex. 2003, 7. Good-faith M&A requests that stall, with no suggestion or history of enforcement, should weigh against denial to avoid chilling the business ecosystem or burdening patent owners. *See Allani*, IPR2025-00856, Paper 11 at 3 (noting that communications leading the petitioner to expect non-enforcement weighed against discretionary denial).

W&W also cannot claim that it did not expect IPR challenges, regardless of the length of time in force, once it filed a lawsuit. All challenged patents, including the '360 Patent, are AIA patents, which W&W knew at filing could potentially be subject to IPRs during litigation. Both the Federal Circuit and Supreme Court have recognized that a patent’s age does not create settled expectations against a validity challenge. Indeed, IPR proceedings “serve the purpose of correcting prior agency error of issuing patents that should not have issued in the first place,” like reexaminations have “for nearly four decades.” *Celgene Corp. v. Peter*, 931 F.3d 1342, 1360-63 (Fed. Cir. 2019); *see also Genentech, Inc. v. Hospira, Inc.*, 946 F.3d 1333, 1343 (Fed. Cir. 2020); *SAS Inst., Inc. v. Iancu*, 584 U.S. 357, 360 (2018) (finding that IPR was created “[t]o remedy” patents that should not have issued).

Moreover, W&W’s ability to seek injunctions on improperly issued patents, as it has here, is exacerbated by the passage of time. Ex. 1087, 105.

3. Citations to Related Applications Do Not Provide Notice of the ’360 Patent

W&W argues “constructive notice” of the ’360 Patent because the USPTO cited “*applications related to* the ’360 Patent”—but not the application or published application of the ’360 Patent or the ’360 Patent itself—during prosecution of Samsung patents. DD Req. 5-6 (emphasis added). Foremost, W&W filed the ’360 Patent more than three years after this alleged “notice,” and the ’360 patent has two CIPs in the priority chain between it and the application on which W&W relies for “notice.” Ex. 1001 at 1-2. Courts have expressly rejected similar arguments, with Judge Gilstrap criticizing the theory as “too nebulous” to provide notice. *See Intell. Ventures I LLC v. T-Mobile USA, Inc.*, Hearing Tr. 61:2-9, No. 2:17-cv-00577-JRG, Dkt. 297 (E.D. Tex. Jan. 3, 2019).

W&W’s cases (*Dabico* and *iRhythm*) do not show otherwise. DD Req., 5-6. *Dabico* mentions searchable USPTO systems but never suggests that this alone creates notice. *Dabico Airport Sols. Inc. v. AXA Power ApS*, IPR2025-00408, Paper 21 at 3 (Director June 18, 2025). And, in *iRhythm*, the petitioner cited the “then-pending application *that issued as the challenged patent*” in an IDS. *iRhythm Techs., Inc. v. Welch Allyn, Inc.*, IPR2025-00363, Paper 10 at 3 (Director June 6, 2025).

Here, not only was the application of the '360 Patent not cited, but the USPTO could not have cited it because W&W did not file the application that issued as the '360 Patent until March 29, 2022. *See* Ex. 1001, cover (22). Because it did not exist at the time, no search of the USPTO's records would have revealed the '360 Patent or its application. Accordingly, no "constructive notice" exists, and this does not favor denial.

4. W&W's Alleged "Investment" Does Not Create Settled Expectations

W&W's alleged "investment, time, and resources dedicated to research, development, [and] trials" does not favor denial. DD Req. 6-7. W&W identifies only alleged conception in April 2013, then over a year later "fabricat[ing] proof of concept" in June 2014, then nothing until November 2024 to "conduct[] computer simulations." *Id.* at 7. None of these activities show meaningful investment or development. The Director in *Amgen* required "an extraordinary amount of investment" that "correlates to settled expectations." *Amgen Inc. v. Bristol-Myers Squibb Co.*, IPR2025-00601, Paper 9 at 2-3 (Director July 24, 2025). W&W's minimal activities are the "absence of such information" that *Amgen* rejected. *Id.*

B. Samsung's Settled Expectations Outweigh Any Expectations of W&W

Even if W&W could prove it has settled expectations—it does not—Petitioners had no reason to anticipate assertion of any challenged patent, and W&W

admits that it “has not offered for sale or sold any product that embodies any claim of any of the Asserted Patents, nor has it licensed the Asserted Patents to any third party” (Ex. 1087, Compl. ¶36), which weighs against denial. *See supra* § II.A.2; *Allani*, IPR2025-00856, Paper 11 at 3; *cf. Globus Med., Inc. v. Spinelogik, Inc.*, IPR2025-00225, Paper 8 at 2 (Director June 12, 2025) (referring to merits panel when petitioner showed it did not expect enforcement); *Intel*, IPR2025-00327, Paper 12 at 2-3; *Home Depot*, IPR2025-00480, Paper 11 at 2-3.

III. THE *FINTIV* FACTORS SUPPORT REFERRAL

The Director should not deny the Petition under *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (Mar. 20, 2020) (precedential) (“*Fintiv*”), because, holistically, Factors 1, 3, 4, and 6 weigh against denying institution, and Factor 2 should weigh against denying institution or, at worst, be neutral. Factor 5 should be neutral or, at worst, weigh slightly in favor of denial.

A. Factor 1: The Trial Court Is Likely to Grant a Post-Institution Motion to Stay

Factor 1 weighs against denial. W&W argues that “Judge Gilstrap is highly unlikely to stay the District Court Action.” DD Req. 8. This is wrong because “evidence exists that [a stay] may be granted if [this] proceeding is instituted”—i.e.,

post-institution.¹ *Fintiv*, IPR2020-00019, Paper 11 at 5-6.

Judge Gilstrap frequently grants post-institution stays at similar case stages, providing objective “evidence ... that [a stay] may be granted if [this] proceeding is instituted.” *Id.* at 5-7; *see also Twitch Interactive, Inc. v. Razdog Holdings LLC*, IPR2025-00307, Paper 18 at 2-3 (Director May 16, 2025) (referring to Board and noting petitioner’s evidence showing likelihood of post-institution stay). Where, as here, the *Markman* hearing will be well after the institution decision date, Judge Gilstrap has frequently stayed cases after institution, including in cases that were much closer to trial than this one. *See, e.g., Resonant Sys., Inc. v. Samsung Elecs. Co.*, No. 2:22-CV-00423-JRG, 2024 WL 1021023, at *2-4 (E.D. Tex. Mar. 8, 2024) (Gilstrap, J.) (granting stay with institution seven months before trial).

General Access Solutions, Ltd. v. Cellco P’ship, No. 2:22-cv-00394-JRG, Dkt. 225 (E.D. Tex. May 22, 2024), does not support W&W’s position because it had five months between institution and trial, unlike the minimum of nine months here.

B. Factor 2: Trial Statistics and Objective Evidence Show the FWD Will Likely Issue Around or Before Trial

Factor 2 should weigh slightly against denial or, at worst, is neutral. Although

¹ W&W’s pre-institution stay denials without prejudice to renew (DD Req. 8-10), weigh *against* discretionary denial. *See Fintiv*, IPR2020-00019, Paper 11 at 6-7.

trial is currently set to begin August 3, 2026, both the official time-to-trial statistics and data on the presiding judge show that the date will slip, on average, by about four months, making the trial date about the same as the final written decision date.

W&W incorrectly alleges that “[t]he median time-to-trial in the Eastern District of Texas is 21.9 months.” DD Req. 10. Rather, the median time-to-trial statistics show **25.1 months** between filing and trial, at or less than one month before the last possible FWD. Ex. 1077, 35; *see Google LLC v. BrodTi Inc.*, IPR2025-00472, Paper 19 at 2 (Deshpande, C.J., June 25, 2025) (considering median time-to-trial).

For the particular judge, 13 of the 14 patent trials in the last year (93%) have been delayed by, on average, 4 months, with a median time-to-trial of 25.5 months. Ex. 1078. The likelihood of delay is confirmed because Judge Gilstrap has 8 trials scheduled for August 3, and 29 trials scheduled for August 2026. *See* Ex. 1079. Average delay would place trial in early December 2026, only a few weeks before the last possible statutory FWD date. The Board also issues institution decisions about two weeks (on average) before the deadline, eliminating much of expected difference between trial and the last possible FWD date. Ex. 1082. If the Board also issues the FWD early, it could precede the median time-to-trial date.

Moreover, in determining the most efficient resolution, the USPTO should account for the time when the forum will issue an **appealable** final judgment. For the Board, that is the FWD. But the district court issues a post-trial final judgment

on average 9 months after trial. Ex. 1080. Thus, the Board will enter a final, appealable decision on patentability between 4 months (current trial date) and 8 months (median time-to-trial date) *before* the district court, making the Board the most expeditious forum to resolve patentability. Factor 2 should be, at worst, neutral.

C. Factor 3: Samsung Was Diligent and Little Investment in the District Court Has Occurred

The Director has often considered the dates of a *Markman* hearing, close of fact discovery, and close of expert discovery relative to institution in weighing Factor 3. *See, e.g., Google LLC v. Truesight Commc'ns LLC*, IPR2025-00024, Paper 12 at 2 (Deshpande, C.J., June 25, 2025); *Am. Airlines, Inc. v. Intell. Ventures I LLC*, IPR2025-00785, Paper 11 at 3 (Director Aug. 29, 2025) (agreeing with petitioner that there is “little investment” under Factor 3 when *Markman* is scheduled after institution decision). Here, all of those dates will occur *after* the institution decision. Ex. 1083. At the last possible institution date, the parties will have exchanged contentions among themselves, and begun but not finished claim construction briefing, and W&W will have narrowed its asserted claims, a negligible effort. *Id.* But the bulk of the case—including W&W’s reply claim construction brief; Petitioners’ election of prior art; *Markman* hearing; mediation (if sought); the bulk and completion of fact discovery; all expert reports; expert discovery, including depositions; dispositive motions, responses, and replies thereto; pretrial motions,

such as motions *in limine*; trial; and post-trial briefing—will remain. *Id.*

D. Factor 4: Petitioners’ Broad Stipulation Eliminates Any and All Overlap Between Proceedings

W&W argues that “the same or substantially the same claims, grounds, arguments, and evidence’ ... are at issue in the parallel District Court Action.” DD Req. 12-14. That is false. There can be no dispute that, if instituted, Petitioners’ stipulation removes all overlapping arguments from the district court.

Petitioners’ stipulation includes a *Sotera* stipulation *and further stipulates* away any ground that includes references named in the Petition’s grounds (i.e., *Kuboi*), even in combination with system art.² See Paper 9. This stipulation exceeds that which was found to overcome a FWD trailing the expected trial date by about two months. See *Tesla v. Intell. Ventures II LLC*, IPR2025-00217, Paper 9 at 2; *Tesla v. United States*, IPR2025-00341, Paper 12 at 2 (Director June 13, 2025). There is no dispute that an institution decision will be rendered before trial. As that time, if the Board institutes, Petitioners’ stipulation removes all overlap between proceedings.

W&W misleadingly argues that “244 patents and published publications, 138

² W&W’s citation to *Ingenico Inc. v. IOENGINE, LLC*, 136 F.4th 1354, 1367 (Fed. Cir. 2025), is misplaced for this reason. DD Req. 13.

non-patent publications, and 11 products” are listed in Petitioners’ invalidity contentions, and that Petitioners will raise *Kuboi* in the litigation as a “loophole.” DD Req. 13. If instituted, grounds B4 and B8 for the ’360 Patent (DD Req. 12-13) will have only *four* total references, with two being systems that cannot be raised in an IPR. None are overlapping, or include, *Kuboi*, *Yu*, or *Shinohara*.

E. Factor 5: The Parties Are the Same

The parties in the parallel litigation are the same, which recent decisions have also indicated is either neutral or only slightly favors denial. *See Innolux Corp. v. Phenix Longhorn LLC*, IPR2025-00043, Paper 10 at 13 (May 15, 2025).

F. Factor 6³: Strong Merits Show the Office Erred by Overlooking the Conventionality of the Alleged Point of Novelty

1. The Petition’s Strong Merits Weigh Against Denial

The Petition has strong merits and W&W does not identify any weakness in the Petition’s grounds, which favors not denying institution. *E.g.*, *Samsung Elecs. Co. v. SiOnyx, LLC*, IPR2024-01431, Paper 21 at 17 (Apr. 10, 2025) (granting institution when “Patent Owner provides very little argument, on the merits ...”).

W&W criticizes the Petition’s reliance on Dr. Leby to show how the prior art discloses or renders obvious an “increase photon absorption of said device of incident light by at least 1.1 times.” DD Req. 15-16. He does not “fill in” gaps—

³ W&W’s Factor 6 analysis refers to Section II.C. Both are addressed here.

there are none. Dr. Lebbly provides a detailed explanation of how, *inter alia*, “one skilled in the art would have understood that *Kuboi*’s photodetectors with organic material in its in-pillar holes would increase photon absorption in *Kuboi*’s device by at least 1.1 times at selected visible and infrared wavelength ranges of said incident light compared to a like device lacking said one or more in-pillar holes.” Ex. 1002 ¶199. He also shows how his opinion is consistent with the ’360 patent and other prior art teachings. *Id.* ¶¶200, 212; *see also Unification Techs. LLC v. Micron Tech. Inc.*, 2024 WL 3738401, at *7 (Fed. Cir. Aug. 9, 2024) (affirming Board’s unpatentability finding relying on expert’s opinion explaining “how an ordinarily skilled artisan would have understood [the prior art’s] description of” the claim term).

2. The Board Is Best Suited to Handle the Complex Technology Here

The ’360 Patent and other challenged patents present uniquely complicated facts that make the PTAB the best forum to decide their validity. The ’360 Patent and other challenged patents have specifications ranging from 80 to 200 pages describing complex semiconductor technology, and claim priority to extensive numbers of related applications. The priority chains of the ’543, ’871, ’948, ’700, and ’360 Patents include multiple continuation-in-part applications, making any priority analyses complex. The Board is best equipped to address the issues that arise from the complex webs of applications. *Tesla*, IPR2025-00341, Paper 12 at 2-3

(stating that “complex and diverse litigation proceeding[s]” favor institution where “the Board is better suited” to review the patents).

Trial time is limited and shared with other complex issues like non-infringement and damages. These IPRs allow individualized, focused briefing for each patent to address nuanced technological differences. Parties invariably have competing experts in any post-grant proceeding, and W&W’s argument that that weighs in favor of the district court cannot be true. Indeed, W&W essentially (and incorrectly) argues that post-grant proceedings should never proceed with competing experts. Ultimately, the Board is best suited to understand technological issues and probe questions at oral hearing for each patent.

IV. W&W’S ARGUMENTS UNDER 35 U.S.C. § 325(d) FAIL AND HIGHLIGHT THE OFFICE’S MATERIAL ERROR

A. W&W’s Relevance/Cumulativeness Argument Fails Because It Does Not Compare *Kuboi* to Any Reference Used in Prosecution

W&W argues that *Kuboi* is “cumulative” and “less relevant to patentability than any of the references cited during prosecution or in the Petition” (DD Req. 16-17), yet W&W does not compare *Kuboi* to any reference presented during prosecution. *Regeneron Pharms., Inc. v. Kymab Ltd.*, No. IPR2019-01579, Paper 9 at 11 (Mar. 20, 2020), is distinguishable because, there, the asserted prior art “largely overlap[ped] with arguments previously presented during prosecution.” Not so here.

W&W argues that *Kuboi* operates *differently* than the ’360 patent (and the

prior art). DD Req. 16-17. By alleging different operation, W&W tacitly admits that “the same or substantially the same prior art or arguments” were not previously before the Office. W&W’S argument is also incorrect because *Kuboi*’s operation falls squarely within the scope of the claims. *See, e.g.*, Paper 1 (“Pet.”) 40-43.

**B. The Examiner’s Failure to Consider Yu—a Primary Reference—
Constitutes Material Error**

Yu was not substantively considered during prosecution. W&W contends that *Yu* was incorporated by reference into *Yu-331*, which was cited (but not relied on) during prosecution. DD Req. 17-18; Ex. 2011 ¶1. The Examiner also did not issue any rejections based on §§ 102 or 103. *See* Ex. 1003. There is no indication the Examiner considered either *Yu* or any of the other 24 incorporated applications in *Yu-331*. *See Ecto World, LLC v. RAI Strategic Holdings, Inc.*, IPR2024-01280, Paper 13, 5-7 (PTAB May 19, 2025) (precedential) (“Thus, the Board should consider a petitioner’s argument based on the volume of the references submitted to the Office during examination....”). In the reasons for allowance, the Examiner identified “a photodetector device formed in or on a semiconductor substrate and provided with deliberately formed in-pillar holes comprising *a laterally extending array of pillars with specific structures and characteristics*” as the distinguishing feature. Ex. 1003, 105-106 (emphasis added). *Yu* discloses this feature. *See* Pet. 79-81 ([1a]). And, both *Yu* and the ’360 Patent are directed to detecting light “at selected visible and infrared

wavelength ranges,” further emphasizing that the Examiner’s failure to consider *Yu* was material error. Ex. 1001, 55:51; Ex. 1002 ¶286.

W&W’s DD Request has not disputed that *Yu* and *Kuboi* teach the purportedly novel claim element, which favors the Board correcting the Office’s past error. *See Tesla, Inc. v. Charge Fusion Techs., LLC*, IPR2025-00152, Paper 11 at 2-3 (Director June 12, 2025) (referring to Board where petitioner showed, and patent owner did not challenge, that the prior art showed the missing element of claims in prosecution).

C. The Petition Relied on *Shinohara*—a Secondary Reference—for More than Solid Dielectric Insulating Film

W&W incorrectly contends that *Shinohara* is cumulative to *Baba*, arguing “Samsung cites *Shinohara* [only] as a secondary reference for allegedly disclosing a solid dielectric insulating film” and “monolithic integration.” DD Req. 17-19. But the Petition relies on *Shinohara* for other teachings, including its teachings of “silicon oxide and silicon nitride films” as “solid dielectrics.” Pet. 29-30. W&W’s failure to address these teachings shows that *Shinohara* is not cumulative.

V. CONCLUSION

Petitioners respectfully request referral of this Petition to the merits panel.

Date: October 8, 2025

Respectfully submitted,

/ Joshua L. Goldberg /

Joshua L. Goldberg

Lead Counsel

Reg. No. 59,369

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing **Petitioners’
Opposition to Patent Owner’s Request for Discretionary Denial of Institution**
was served on October 8, 2025, via email directed to counsel of record for the
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Patent Owner has consented to electronic service by email.

Dated: October 8, 2025

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