

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZHUHAI COSMX BATTERY CO., LTD.,
Petitioner

v.

NINGDE AMPEREX TECHNOLOGY LIMITED,
Patent Owner

Case IPR2025-00389
U.S. Patent No. 11,923,498

**PETITIONER’S OPPOSITION TO
PATENT OWNER’S DISCRETIONARY DENIAL BRIEF**

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PETITIONER’S UPDATED EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 11,923,498 B2 to Tao (“the ’498 patent”)
1002	Prosecution File History of U.S. Patent No. 11,923,498 B2 (“’498 File History”)
1003	Declaration of Ulrich von Sacken, Ph.D
1004	Curriculum Vitae of Ulrich von Sacken, Ph.D
1005	U.S. Patent Pub. No. 2011/0111276 to Sato <i>et al.</i>
1006	Japanese Patent Pub. No. 2000-67907 to Takemura <i>et al.</i>
1007	U.S. Patent Pub. No. 2011/0104539 to Oh <i>et al.</i>
1008	Japanese Patent Pub. No. 2010-55906 to Kobayashi <i>et al.</i>
1009	Japanese Patent Pub. No. 10-326629 to Maejima <i>et al.</i>
1010	Japanese Patent Pub. No. 11-26008 to Yamauchi <i>et al.</i>
1011	Japanese Patent Pub. No. 2000-285902 to Mizutani <i>et al.</i>
1012	Japanese Patent Pub. No. 2003-068271 to Nakamura <i>et al.</i>
1013	Japanese Patent Pub. No. 2007-165224 to Yoneda <i>et al.</i>
1014	U.S. Patent Pub. No. 2006-0051662 to Kwak <i>et al.</i>
1015	U.S. Patent Pub. No. 2007-0172736 to Fujikawa <i>et al.</i>
1016	Japanese Patent Pub. No. 2008-171593 to Aoki <i>et al.</i>
1017	U.S. Patent Pub. No. 2010-0035144 to Oh <i>et al.</i>
1018	Korean Patent Pub. No. 2013-0085202 to Lee <i>et al.</i>
1019	Agubra <i>et al.</i> , “Lithium Ion Battery Anode Aging Mechanisms”
1020	Smart <i>et al.</i> , “Effects of Electrolyte Composition on Lithium Plating in Lithium-Ion Cells”
1021	Ratnakumar <i>et al.</i> , “Lithium Plating Behavior in Lithium-ion Cells”
1022	Eberman <i>et al.</i> , “Material and Design Options for Avoiding Lithium-Plating during Charging”

Exhibit No.	Description
1023	Wen <i>et al.</i> , “A Review on Lithium-Ion Battery Safety Issues: Existing Problems and Possible Solutions”
1024	Complaint and Exhibit N filed in <i>Ningde Amperex Technology Ltd. V. Zhuhai CosMX Battery Co., Ltd.</i> , Case No. 2:24-ccv-728 (E.D. Tex.)
1025	Unopposed Application for Extension of Time to Answer Complaint, <i>Ningde Amperex Tech. Ltd. v. Zhuhai CosMX Battery Co.</i> , No. 2:24-cv-00728-JRG (E.D. Tex. Dec. 4, 2024), ECF 16
1026	“Nearly two lithium battery fires per week on airplanes in the US alone,” International Association of Fire and Rescue Services (Dec. 19, 2024), <i>available at</i> : https://www.ctif.org/news/nearly-two-lithium-battery-fires-week-airplanes-us-alone .
1027	Docket Control Order, <i>Ningde Amperex Tech. Ltd. v. Zhuhai CosMX Battery Co.</i> , No. 2:24-cv-00728-JRG (E.D. Tex. Feb. 6, 2025), ECF 27
1028	Federal Court Management Statistics (Sept. 30, 2024)
1029	Federal Court Management Statistics (Dec. 31, 2024)
1030	Results charted from LexMachina.com, run on June 2, 2025, for patent cases before District Judge James Rodney Gilstrap
1031	Excerpt of CosMX Invalidity Contentions Cover Pleading, <i>Ningde Amperex Tech. Ltd. v. Zhuhai CosMX Battery Co.</i> , Case No. 2:24-cv-00728-JRG (E.D. Tex. Mar. 12, 2025).
1032	Declaration of John C. Evans

I. INTRODUCTION

IPRs were created to provide a lower-cost, higher-quality resolution of patent-validity disputes as compared to complex district-court litigation. *See* Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48680-01 (Aug. 14, 2012) (identifying the goals of the AIA as “improv[ing] patent quality and limit[ing] unnecessary and counterproductive litigation costs”). Patent Owner (PO) observes that the present Petition relates to one of six patents PO asserted in a single co-pending district court case. PO suggests that it is more efficient for the PTAB to discretionarily deny all seven petitions related to these six patents, based on the overly simplistic argument that one proceeding is more efficient than eight. *See* Patent Owner’s Discretionary Denial Brief, Paper 6 (“Br.”) at 1-2. That portrayal of complex litigation is divorced from reality.

It is logistically intractable for a defendant to invalidate six patents in a single jury trial, even if all six patents are—as they are here—clearly invalid. The broad consensus of district courts is to grant *post-IPR institution* stays of proceedings where doing so will narrow the issues for trial by removing certain claims and patents based on the IPR results—even if it does not eliminate all issues. Any patents or claims that survive IPR can be litigated in a subsequent trial.

See, e.g., STA Group LLC v. Motorola Sols., Inc., No. 2:23-cv-00030-JRG-RSP,
Dkt. No. 402 (E.D. Tex. Aug. 27, 2024).

Trials that are targeted and streamlined by PTAB assistance are more efficient (and fairer) than a trial that is overburdened with issues. Indeed, it is a common litigation strategy to assert an unwieldy number of patents, even where most are weak, as PO has done here, in order to drive up costs and distract defendants. Plaintiffs can then drop patents on the eve of trial and focus their jury presentation on the strongest claims, only to leave the threat of those dropped-but-still-in-force patents looming over the industry. Empowering defendants to resist that tactic has been one of the greatest benefits of IPR practice.

Additionally, and of particular importance to this Petition, the PTAB provides a tribunal of specialist judges who are well-versed in the law of patentability and have scientific backgrounds. Better suited to adjudicate the issues raised in this Petition, the APJs will clearly see that the asserted prior art combinations disclose or suggest each and every limitation of the challenged claims. Indeed, the claims here merely recite standard elements of lithium-ion batteries provided in arrangements known and disclosed in the prior art.

II. *FINTIV* DOES NOT SUPPORT DISCRETIONARY DENIAL.

On balance, the *Fintiv* Factors weigh against discretionary denial.

A. *Fintiv* Factor 1 is neutral or weighs slightly against denial: The district court may stay proceedings for any patents that are instituted, promoting efficiency between the two tribunals.

The Eastern District of Texas regularly issues stays following institution of IPR proceedings under circumstances similar to the present situation. PO's suggestion that the district court here has indicated that it will not issue a stay is simply untrue. *Contra* Br. at 15-17. The court here has not made any statement one way or the other about the appropriateness of a stay, and all of the authorities PO cites relate to *pre-IPR institution* stays. *Id.* That Texas courts, like a number of other courts, do not favor pre-IPR institution stays—and Petitioner here has not requested one—does not mean a post-IPR institution stay is unlikely here.

In deciding whether to stay litigation pending IPR, the Eastern District of Texas considers three factors: (1) whether a stay will simplify the issues in question and the trial of the case, (2) whether a stay will unduly prejudice or present clear tactical disadvantage to the nonmoving party, and (3) whether discovery is complete and whether a trial date has been set. *BarTex Research, LLC v. FedEx Corp.*, 611 F. Supp. 2d 647, 649-50 (E.D. Tex. 2009). Indeed, the court has observed that the PTAB's determination in IPR "could narrow the issues before the court, prevent duplicative or unnecessary discovery, and encourage settlement or dismissal." *Norman IP Holdings, LLC v. TP-Link Techs., Co.*, No. 6:13-cv-384-JDL, 2014 WL 5035718, at *3 (E.D. Tex. Oct. 8, 2014). Removing

asserted patents or claims from a litigation due to parallel IPR proceedings—even where *other* asserted patents will still proceed to trial—creates invaluable efficiencies in the district court.

The Eastern District of Texas regularly finds that instituted IPRs meet the stay factors and issues stays despite its otherwise aggressive procedural schedules. *See, e.g., Stellar, LLC v. Motorola Sols., Inc.*, No. 4:23-cv-00750-SDJ, Dkt. No. 170 (E.D. Tex. Apr. 21, 2025); *Cellspin Soft, Inc. v. ByteDance Ltd.*, No. 2:23-cv-00496-JRG-RSP, Dkt. No. 106 (E.D. Tex. Jan. 27, 2025); *Cobblestone Wireless, LLC v. Cisco Sys., Inc.*, No. 2:23-cv-00454-JRG-RSP, 2024 WL 5047854 (E.D. Tex. Dec. 9, 2024); *Intercurrency Software LLC v. Binance Holdings, Ltd.*, No. 2:23-cv-00370-JRG, Dkt. No. 86 (E.D. Tex. Aug. 29, 2024); *Foras Techs. Ltd. v. Aptiv PLC*, No. 2:23-CV-00314-JRG, 2024 WL 5348631 (E.D. Tex. July 25, 2024); *Broadphone LLC v. Samsung Elecs. Co.*, No. 2:23-cv-00001-JRG-RSP, 2024 WL 3524022 (E.D. Tex. July 24, 2024); *STA Group LLC v. Motorola Sols., Inc.*, No. 2:22-cv-00381-JRG-RSP, 2024 WL 2852961 (E.D. Tex. June 5, 2024); *Resonant Sys., Inc. v. Samsung Elecs. Co.*, No. 2:22-cv-00423-JRG, 2024 WL 1021023 (E.D. Tex. Mar. 8, 2024); *Netlist, Inc. v. Micron Tech., Inc.*, No. 2:22-cv-00203-JRG, 2024 WL 4381164 (E.D. Tex. Feb. 10, 2024); *Commc’n Techs., Inc. v. Samsung Elecs. Am., Inc.*, No. 2:21-cv-00444-JRG, 2023 WL 1478447 (E.D. Tex. Feb. 2, 2023); *Vill. Green Techs., LLC v. Samsung Elecs. Co.*, No. 2:22-CV-

00099-JRG, 2023 WL 416419, (E.D. Tex. Jan. 25, 2023); *BoxCast Inc. v. Resi Media LLC*, No. 2:21-cv-00217-JRG, Dkt. No. 163 (E.D. Tex. May 25, 2022).

Importantly, the Eastern District of Texas does *not* require that all petitions for asserted patents be instituted to find that a stay will create efficiencies and assist the district court. The court has stayed *entire cases* where only *some* of the asserted patents had instituted IPRs. *See OnPoint Systems, LLC v. Protect Animals With Satellites, LLC*, No. 4:20-cv-657, 2022 WL 2704166 (E.D. Tex. July 12, 2022). Alternatively, the court has bifurcated cases to stay the patents for which IPR was instituted, allowing other patents to proceed to trial. *See STA Group LLC*, No. 2:23-cv-00030-JRG-RSP, Dkt. No. 402.

The court has found that “the outcome of a PTO proceeding is likely to assist the court in determining patent validity or eliminate the need to try infringement issues.” *NFC Tech. LLC v. HTC Am., Inc.*, No. 2:13-cv-1058-WCB, 2015 WL 1069111, at *1 (E.D.Tex. Mar. 11, 2015). Any IPR that stands to remove or greatly reduce the number of asserted patents or claims is “likely to assist” the district court. *Id.*; *see also DataTreasury Corp. v. Fiserv, Inc.*, No. 2:13-cv-00431, Dkt. 616 at *8 (E.D.Tex. Aug. 14, 2014) (granting stay pending a third-party IPR). The value of IPRs is not simply to moot entire district court trials.¹ It is to

¹ Indeed, PO’s logic would imply that any time a plaintiff asserts more than

streamline unwieldy trials for which justice is otherwise out of reach due to cost, complexity, and limited trial time. This is such a case. Streamlining is especially helpful where, as here, each of the asserted patents covers very different subject matter and the Petitions cite different prior art. There is no efficiency to be gained by adjudicating validity all of the patents in the same forum.

Furthermore, PO's observation that Petitioner has not yet requested a stay in the parallel litigation, and its suggestion that grant of a stay is unlikely, is irrelevant and misleading. Br. at 15. PO cites *Force MOS Tech. Co., Ltd. v. ASUSTeK Computer, Inc.*, Case No. 2:22-cv-000460, Dkt. No. 74, (E.D.Tex. April 10, 2024) for the proposition that the Eastern District of Texas "has a consistent practice of denying motions to stay when the PTAB *has yet to institute* post-grant proceedings" as to all patents at issue. Br. at 16 (emphasis added). That refers to pre-institution stays. As shown above, the Eastern District of Texas, like a number of other courts, is more than willing to grant stays *after* IPR institution. Petitioner will seek such a stay here after institution.

one patent, the PTAB should leave all validity challenges to the district court. This incentivizes patent owners to broaden lawsuits as gamesmanship to avoid accountability before the PTAB, further burdening litigants and the courts.

Finally, PO attempts to use alleged missing feature 20.7 from another patent, U.S. Patent No. 11,769,910, challenged in another Petition, IPR2025-00405, as a reason to deny this Petition, while improperly trying to incorporate by reference that IPR's Discretionary Denial Brief and POPR, ('498 Br. at 8-9, 17). First, whether or not '910 patent feature 20.7 is met has no bearing on whether to institute or deny in this case. Second, the '910 patent Corrected IPR Petition included multiple substantive arguments for claim element 20.7. *See* '910 patent Corrected IPR Petition at e.g. 29-31, 43, 69. PO's argument about that IPR here is a mere distraction.

B. *Fintiv* Factor 2 is neutral: The proximity of the court's trial date is not informative here.

Factor 2 is neutral. Trial is currently set for July 6, 2026, which is only two months before the latest possible date for the Final Written Decision (FWD) on September 10, 2026. Although the IPR petition was filed on January 15, 2025, the PTAB did not issue the Notice of Filing Date until March 10, 2025—taking 54 days, *nearly a month longer* than average. Had the PTAB followed its usual timeline, the district court trial would be scheduled just one month before the latest possible date for the FWD, underscoring the narrow gap between the two proceedings.

Additionally, the currently scheduled trial date here is only a preliminary target. As of this filing, Judge Gilstrap has *fourteen* trials scheduled in his

courtroom the same week as the present parties' scheduled trial.² Only one will actually be held. The others will be rescheduled if the parties involved do not settle their respective disputes. Accordingly, the current, *tentative* trial date is not a reliable indication of the actual time to resolution in this case.

A more reliable indicator of the likely timeline is the average time to trial for Judge Gilstrap, which is currently 23 months and has been increasing. EX1030, 1.

² See *Wacom Co. Ltd. v. Shenzhen Qianfenyi Intelligent Tech Co., Ltd.*, 2:24-cv-00702-JRG; *WAG Acquisition, L.L.C. v. Technius Ltd.*, 2:24-cv-00714-JRG; *Ningde Ampere Tech Ltd v. Zhuhai CosMX Battery Co., Ltd.*, 2:24-cv-00728-JRG; *Reid v. Riddell, Inc.*, 2:24-cv-00731-JRG; *ElectraLED, Inc. v. Traxon Techs Ltd*, 2:24-cv-00741-JRG-RSP; *Assets, LLC v. Samsung Elecs Co., Ltd.*, 2:24-cv-00828-JRG; *VB Stingray IP Solutions LLC v. Hewlett Packard Enterprise Co*, 2:24-cv-00868-JRG-RSP; *CM HK Limited v. Samsung Elecs Co Ltd*, 2:24-cv-00880-JRG; *WebSock Global Strategies LLC v. Black Box Corp.*, 2:24-cv-00913-JRG; *Jackson v. CenterPoint Energy Inc.*, 2:24-cv-00956-JRG; *Holland v. Annett Holdings, Inc.*, 2:24-cv-01072-JRG-RSP; *GDC Industrial Inc., v. Prysmian Cables & Sys USA LLC*, 2:25-cv-00028-RSP; *Bracey v. Dolgencorp of Texas, Inc.*, 2:25-cv-00045-JRG; *Weeks v. Bonvenu Bank, N.A. FKA Citizens National Bank*, 2:25-cv-00063-JRG.

That would make the anticipated trial date within days of the first Final Written Decision deadline for the patents at issue between the parties, and within one month for most of the asserted patents, including the '498 patent. The time to trial, however, does not account for resolution of post-trial briefing, which takes an average of four months for Judge Gilstrap's cases in the Eastern District of Texas. EX1030, 1. The anticipated resolution of invalidity on the merits in the district court will, therefore, be months *after* FWD. Institution will still provide judicial economy even where the FWD issues after trial but before post-trial motions. These circumstances make the gap between the IPR and the district court resolution smaller and minimize the weight of Factor 2.

Even these timelines, however, do not reflect the likelihood that Judge Gilstrap will grant a stay of some or all of the case following IPR institution here, as was done in the cases cited above for *Fintiv* Factor 1. Where stays are granted, it does not matter that the statutory FWD deadline will be one, two, or even five months after the *scheduled* jury trial, *contra* Br. at 18-19, because any jury trial *will not include* the patents on review at the PTAB. Here, as discussed above, IPR instituted patents may be stayed from the proceedings to streamline a currently unwieldy district-court case. In the event that any claims of the IPR instituted patents survive, the district court can lift the stay and proceed to a bifurcated trial

that is limited to the claims surviving FWD. Such a stay would make the current proximity of the anticipated trial date irrelevant to *Fintiv* Factor 2.

C. *Fintiv* Factor 3 weighs against denial: Minimal investment in the parallel proceeding by the time of the institution decision and expeditious IPR filing.

The co-pending district court litigation is in its early stages. The parties have only recently exchanged contentions, no depositions have been taken, and the *Markman* process has not even begun. Compare EX1027, with *Motorola Sols. Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19 (P.T.A.B. Mar. 28, 2025) (finding substantial investment in parallel litigation where depositions had been taken, expert reports were already submitted, and a *Markman* ruling was already issued). The parties here will not even exchange potential terms for construction for months. EX1027. Fact discovery recently began and will not close until February 2026, when expert discovery will begin, followed by dispositive motions. *Id.* PO's claim to have produced "tens of thousands of documents" is artificially inflated as PO appears to be counting *re-productions* from past and foreign litigations, collected months if not years ago. Br. at 22-23. Accordingly, because much of the investment relating to invalidity issues, including expert discovery and dispositive motions, will occur long after institution, this factor weighs against denial.

Furthermore, PO's arguments that the parties have substantially invested in an unrelated litigation are misleading. PO primarily points to investments made in

a *past* litigation between the same parties involving *other* patents, and foreign proceedings involving foreign counterparts—not the challenged patent. Br. at 19-22. That is not the kind of investment that is probative of *Fintiv* Factor 3 because it could not have been avoided by earlier filing and institution here. Indeed, PO’s brief cites *no authority* for the proposition that sunk costs relating to *other patents and litigations* “should also be considered investments in this follow-on lawsuit.” DD. Br. at 22. Petitioner is aware of none. To the extent that discovery taken in a prior litigation is relevant to the current litigation, that actually *reduces* the burden of production in this case and results in *less investment* in the current district court proceeding. This factor thus weighs against discretionary denial, not in favor of it.

This factor also weighs against denial because Petitioner here filed its IPR petitions at the earliest possible time during the district court proceeding. Indeed, all seven IPR petitions were filed within just 2-3 months of Petitioner being served with the complaint and/or a few weeks after the PGR period ended. The later petitions were filed following additional patents being newly asserted in an amended complaint and the PGR period ending. Petitioner filed the petitions on a rolling basis as they were prepared, rather than waiting to file all petitions at once. Moreover, Petitioner even hired two additional IPR law firms beyond its litigation counsel to ensure that all available resources were dedicated to filing the strongest possible petitions in the fastest possible timeframe. To the extent that this factor

seeks to promote diligence in filing, such diligence has clearly been demonstrated here. *See, e.g., Samsung Electronics Co., Ltd. v. Headwater Research LLC*, IPR2024-01396, Paper 13 at 7 (P.T.A.B. Apr. 1, 2025) (noting that petitioner's diligence in filing the IPR weighed against denial).

Finally, PO observes that Petitioner here has been found liable for patent infringement in the past, as though that prior finding is relevant to the merits of its current patentability challenge or to *Fintiv* Factor 3. Br. at 6. For that matter, PO's other patents have also been invalidated in prior proceedings, which (by PO's logic) would counsel in favor of *inter partes* review here. In any event, PO again attempts to distract from the strength of the cases at hand. Every dispute and every petition should be decided on its own merits. The Director should not prejudice its consideration of a given petition with unrelated findings from past litigations. The public benefits from the elimination of patent claims that should not have issued. Whether a petitioner has been found to infringe other patents in the past does not bear on the merits of the present dispute.

D. *Fintiv* Factor 4 weighs strongly against denial: Petitioner's *Sotera* stipulation strongly weighs against discretionary denial.

Petitioner filed a *Sotera* stipulation concurrently with every one of its petitions, eschewing any gamesmanship, for example by waiting until after PO's preliminary response to file a stipulation. Indeed, in so filing its *Sotera* stipulations with its petitions, Petitioner unequivocally consented to having the PTAB

adjudicate the prior-art merits of its Petitions. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (P.T.A.B. Dec. 1, 2020) (precedential as to § II.A). According to the PTAB's procedures in effect at the time of the filing, that concession would have precluded the Board from discretionarily denying the Petition based on the parallel litigation. It would be procedurally irregular and unduly prejudicial for the Office to retroactively apply to Petitioner here its new guidance limiting the effect of such stipulations.

At least for the present Petition, the Director should maintain the standards for institution in place at the time this Petition was filed, which Petitioner relied upon in crafting its Petition and *Sotera* stipulation. Petitioner developed the arguments in the Petition and corresponding litigation strategy based on the standards outlined in the June 21, 2022, Interim Procedure for Discretionary Denials issued by the Office (the "*Fintiv* memo"), including the PTAB's stated policy that a *Sotera* stipulation would avoid discretionary denial.

It is well established that the Patent Office cannot apply rules retroactively. *See Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 213-214 (1988) (holding that agencies cannot "act retroactively" unless Congress expressly authorizes). "Elementary considerations of fairness dictate that individuals should have an opportunity to know what the law is and to conform their conduct accordingly." *Landgraf v. USI Film Prods.*, 511 U.S. 244, 265 (1994).

Guidance like the *Fintiv* Memo, while perhaps not formally a rule, nonetheless has the effect of a rule—especially where it directly sets standards for instituting IPRs and was binding on Board panels. *See* 35 U.S.C. § 316(a) (mandating that “[t]he Director shall prescribe regulations” including regulations “(2) setting forth the standards for the showing of sufficient grounds to institute a review under section 314(a)”). The Office’s rescission of the prior *Fintiv* memo, including the effect of the *Sotera* stipulation, effectively changed the standards for the showing of sufficient grounds to institute review under § 314(a).

Setting aside whether rescinding the *Fintiv* memo is itself an APA violation, *see generally Apple Inc. v. Vidal*, 63 F.4th 1 (Fed. Cir. 2023), applying that change retroactively surely violates the spirit of the APA, *Bowen*, and *Landgraf*. Petitioners should have an opportunity to know what the institution standard is upon filing their petition and to conform their petitions accordingly. This is especially true in light of the Office’s representation that any further changes to the institution process would be made through notice-and-comment rulemaking. *See* 88 Fed. Reg. 24,503 (April 21, 2023).

It is furthermore arbitrary and capricious for the Office to issue—and then retroactively enforce—guidance based on changes that *directly contradict* the Office’s prior guidance, particularly the controlling effect of a *Sotera* stipulation. Indeed, the Office did not even provide any reasoned explanation for the changes.

See Food & Drug Admin. v. Wages & White Lion Invs., L.L.C., 145 S. Ct. 898, 921 (2025) (explaining that when an agency changes position, it must “offer[] ‘good reasons for the new policy’”).

The reference to “workload needs of the PTAB” in the Director memo does not explain how the changes will aid that goal. *See F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009) (confirming that an agency changing position must show “that the new policy is permissible under the statute, that there are good reasons for it, and that the agency believes it to be better, which the conscious change of course adequately indicates”). The Director memo does not contain any objective analysis or data illustrating how the workload of the PTAB has changed, or, if it has changed, how such change impacts the PTAB’s ability to meet its statutory obligations. *Id.*

Applying the new *Fintiv* standards retroactively to this Petition prejudices the Petitioner, who relied upon the Office’s prior guidance in incurring the costs of preparing and filing petitions and in coordinating strategies between district court and USPTO proceedings. This is particularly true where the retroactive application of a new rule was not first subjected to notice-and-comment rulemaking under the Administrative Procedure Act, despite the agency’s stated intent to follow such procedures. *See NetworkIP, LLC v. F.C.C.*, 548 F.3d 116, 122–23 (D.C. Cir. 2008). In view of this prejudice and the procedural irregularity surrounding the new *Fintiv*

guidance and the bifurcated briefing process more generally, the Director should not exercise discretion to deny this Petition.

While the Director recently addressed and disregarded this retroactivity concern (*see Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024-01284, Paper 17 at 5 (P.T.A.B. May 23, 2025)), the Director misunderstood the real issue. The concern with applying the rescission of the *Fintiv* Memo retroactively is not whether Petitioner “had the opportunity to present ... arguments in view of the rescission,” as the Director surmised. *Id.* Instead, the concern, as articulated here, is that the retroactive application prejudices the Petitioner who has relied upon the Office’s prior guidance in coordinating strategies between district court and PTAB proceedings, and selecting prior art to be applied in both proceedings. This fundamental concern was not addressed by the Director in *Motorola Solutions*.

Additionally, Petitioner’s invalidity contentions are based on independent product testing of public-use batteries, and do not repeat any substantive arguments based on the patents and printed publications raised in the IPR. EX1031; EX1032. As such, the present IPR serves as a true alternative to district-court litigation, not a duplicative proceeding. The Petition here is therefore distinguishable from the petition that was denied in *Motorola Solutions* where the petitioner’s reliance on “unpublished system[s]” that mirrored printed prior art raised concerns about

duplicative review. IPR2024-01205, Paper 19 at 4 (P.T.A.B. Mar. 28, 2025).

Accordingly, *Fintiv* Factor 4 weighs strongly against discretionary denial.

Even under the new guidance, the Office has confirmed that *Sotera Wireless, Inc. v. Masimo Corp.* is still binding precedent, and acknowledged that a *Sotera* stipulation—like the stipulation filed with the present Petition—“weighs strongly against exercising discretion to deny institution.” *See Solus Advanced Materials Co., Ltd. v. SK Nexilis Co., Ltd.*, IPR2024-01460 (P.T.A.B. April 22, 2025) (citing IPR2020-01019, Paper 12 (P.T.A.B. Dec. 1, 2020)).

E. *Fintiv* Factor 5 is neutral or weighs slightly against discretionary denial.

As is true for most IPRs, Petitioner is a defendant in the parallel litigation, and here this fact is neutral for the reasons discussed for Factor 2. *See Google LLC v. Parus Holdings, Inc.*, IPR2020-00846, Paper 9 at 21 (P.T.A.B. Oct. 21, 2020) (“Here, . . . Petitioner is the defendant in the parallel proceeding. This fact could weigh either in favor of, or against, exercising discretion to deny institution, depending on which tribunal was likely to address the challenged patent first.”); *see also NVIDIA Corp. v. Invensas Corp.*, IPR2020-00603, Paper 11 at 23 (Sept. 3, 2020) (“[T]his factor weighs slightly against discretionary denial,” where the district court trial and IPR final written decision are expected “around the same time.”).

F. *Fintiv* Factor 6 and Memo Factor 3: The strong merits of the Petition weigh against discretionary denial.

The Petition establishes that the '498 patent claims recite nothing more than a combination of conventional battery elements assembled and arranged for reasons known in the art well before the patent's filing date. As such, Factor 6 weighs strongly against discretionary denial. Indeed, the '498 patent claims a straightforward combination of basic elements that were found in conventional lithium-ion batteries at the time—a positive electrode with a first recess to accommodate a positive lead, a negative electrode with a second recess to accommodate a negative lead, and first and second insulating glue layers. Pet., 1-9. The '498 patent purports to improve the energy density and safety performance of lithium-ion batteries by placing the second insulating layer at a location on the positive active material layer opposite the second recess of the negative electrode. But this concept was also well known in the prior art, as evidenced by the Petition.

Thus, unsurprisingly, PO's discussion of the Petition merits under Factor 6 does not raise any credible arguments that claimed elements are missing from the prior art combinations. Instead, PO alleges that Takemura teaches away from using a second insulating glue layer. Br. at 27-31, 33-34. It does not. PO also falsely implies that Petitioner combined the teachings of alternative embodiments in Sato to arrive at the claimed "first recess" and "second recess." Br. at 31-33.

These arguments miss the mark entirely. PO ignores Petitioner's application of the cited art and Sato's explicit teaching of a second glue layer, misapplies the concept of teaching away, and mischaracterizes Sato's disclosure regarding recesses.

1. PO does not argue against the merits of the Petition as a whole and fails to address at least Sato's disclosure of the claimed "second insulating glue layer" in Ground 1.

Failing to confront what is taught by the Sato-Takemura combination, PO improperly attacks Takemura in isolation and ignores the Petition's prior art *combination*. But a "finding of obviousness, however, cannot be overcome by 'by attacking references individually where the rejection is based upon the teachings of a combination of references.'" *Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1050 (Fed. Cir. 2019) (quoting *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986)). "[T]he test for obviousness is *what the combined teachings of the references* would have suggested to those having ordinary skill in the art." *In re Mouttet*, 686 F.3d 1322, 1333 (Fed. Cir. 2012).).

Indeed, in alleging that Takemura teaches away from applying a second insulating glue layer to Sato's second recess, PO ignores the fact that Sato expressly discloses the claimed "second insulating glue layer" located on the positive electrode active material facing the negative lead. *See* EX1005, ¶[0137] ("The positive electrode surface facing the negative electrode lead position was

insulated by a polypropylene adhesive tape in order to prevent lithium deposition.”); *see also* ¶[0148]. As the Petition explains, Sato applies a second polypropylene adhesive tape³ on the surface of the positive electrode active material (4B/9) facing negative lead (5/11L) received in the recess of Sato’s negative electrode 5. Pet., 12, 33-34; EX1005, ¶¶ [0136], [0137], [0148]. Sato’s second polypropylene adhesive tape overlaps the exposed portion 12 (recess) where Sato’s negative lead 11 is located “to prevent lithium deposition.” EX1005, ¶[0137]; Pet., 33; EX1003, ¶¶139-140. Thus, Sato alone discloses “a second insulating glue layer” located on the surface of the positive electrode active material layer that is opposite the second recess. Pet., 12, 33.

Sato’s battery, including the use of the second propylene adhesive tape, is the starting point in the Sato-Takemura and Sato-Takemura-Kobayashi combinations. Pet., 19-23, 34-36, 65-66. PO ignores this. And to the extent that Sato does not explicitly disclose locating the second insulating glue layer opposite to a second recess of the negative electrode, the Petition explains that a POSA

³ In the related district court complaint, PO alleges adhesive tape is an insulating glue layer. Pet., 31; EX1024, 8, 27, 28. So, under Patent Owner’s position, Sato’s polypropylene adhesive tape is an insulating glue layer. Pet., 32.

would have looked to the placement of insulating tapes in other prior art for teachings on where to apply the tape to prevent lithium plating. Pet., 5, 19-23.

Included in that prior art are the conventional batteries shown in Figures 8 and 9 of Takemura. Pet., 19-23, 34-36, 65-66. Takemura's strategic placement of insulating tape in Figures 8 and 9 is consistent with Sato's suggestion of placing a "polypropylene adhesive tape" on the "positive electrode surface facing the negative electrode lead position" to prevent lithium plating. *See* Pet., 21-23.

Accordingly, as the Petition explains, it would have been readily apparent that a POSA would have been motivated to combine the teachings of Takemura's tape placement in Figures 8 and 9 with Sato to prevent lithium plating and short-circuiting. Pet., 19-23, 36, 65-66.

PO wholesale ignores Sato's teachings regarding the second insulating glue layer, jumping directly to an improper, isolated attack on Takemura's disclosure. *See Bradium Techs. LLC*, 923 F.3d at 1050 (holding that appellant's arguments against the Board's obviousness determination "lack merit because they attack the disclosures of the two references individually"). None of PO's arguments address the merits of the Petition's combinations as a whole, which only serves to highlight the strength of the Petition, demonstrating that Factor 6 weighs in favor institution.

2. Takemura does not teach away from a “second insulating glue layer” in any of the asserted prior art combinations.

Contrary to PO’s assertion, Takemura’s mere discussion of strategically removing active material from the current collector, in certain situations, as an alternative to adding an insulating glue layer does not teach away from using a “second insulating glue layer” in the asserted prior art combinations. *See Br.* at 27-31, 33-34.

To teach away, a prior art reference must “criticize, discredit, or otherwise discourage the solution claimed.” *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). A reference does not teach away for merely expressing a general preference for an alternative invention. *See DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009). Indeed, a “given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine.” *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006).

Here, Takemura discloses two alternative ways for preventing lithium plating. First, as shown in Figures 8 and 9, for example, Takemura discloses placing an insulating tape 7 on the positive electrode active material layer 3 adjacent to a negative lead 2 and exposed portions of the negative current collector 6. EX1006, ¶¶[0003], [0008], FIGS. 8, 9. This was one well known approach in the prior art, as also evidenced by Sato and confirmed by Petitioner’s expert Dr. von

Sacken. Pet., 33-36; EX1003, ¶¶[0138]-[0148]. Second, as shown in Figure 7, for example, Takemura also discloses removing the active material layer from the surface of the positive electrode current collector 5 that is located opposite the exposed portions of the negative current collector 6 and negative lead 2. EX1006, ¶¶[0018]-[0020], [0035], FIG. 7.

Importantly, while Takemura describes removing active material and insulating tape with respect to Figure 7 to reduce battery thickness, *Takemura never “disparages” or discredits the use of insulating tape*, as PO alleges. *See* EX1006, ¶[0035]. For example, in describing the embodiment in Figure 3, Takemura discloses that the “positive electrode active material layer 3 opposite the beginning of the winding end of the negative electrode is covered with insulating tape 7 to prevent lithium metal deposition” or “instead of covering it with insulating tape 7, the active material in this portion *may* be removed.” Takemura, ¶21 (emphasis added). That is, Takemura recognizes the strategic placement of insulating tape and the selective removal of active material as two suitable alternatives for preventing lithium plating. Thus, Takemura would not have discouraged a POSA from using the insulating tape as described with respect to Figures 8 and 9. Pet., 19-23, 36, 65-66.

Indeed, combining the teachings of Takemura’s insulating tape placement in Figures 8 and 9 with Sato’s or Oh-539’s centrally-located recesses would have

preserved more active material on the electrode compared to Takemura's embodiments shown in Figures 1-7. As explained in the Petition and recognized by the prior art, preserving more active material on the electrode increases the battery's storage capacity. Pet., 19-23, 44-45 (“[p]reserving active material on the current collector increases the battery's storage capacity.”); EX1005, ¶[0042] (“a decrease in the amount of the active material, i.e., a decrease in the battery capacity.”), ¶[0053] (“[T]he amount of the active material in the electrode plate decreases, thereby reducing the capacity.”). Adopting Takemura's alternative technique for preventing lithium plating—removing active material from the current collector that is located opposite to the terminal—would have reduced the storage capacity of the battery compared to Takemura's Figures 8 and 9 embodiment. Thus, implementing one of Takemura's alternative techniques—strategically placing insulating tape or removing active material—results in a known tradeoff in advantages without discouraging one solution over the other. *See Medichem, S.A.*, 437 F.3d at 1165-1166 (affirming an obviousness finding by the district court despite “the fact that some teachings in the prior art conflict with others”).

Accordingly, PO's teaching away argument has no merit, whereas the Petition's merits are strong.

3. Sato's battery includes the recited "first recess" and "second recess."

PO mischaracterizes Sato as "never disclos[ing] an embodiment with two recesses." Br. at 31 (emphasis removed). PO's contention is demonstrably false based on Sato's disclosure.

Sato indisputably discloses a battery having a positive electrode with a first recess and a negative electrode with a second recess. For example, Sato's battery 1 includes a positive electrode with a recess receiving the positive lead. Pet., 26, EX1005, ¶¶[0111]-[0113]. This *same* positive electrode is used in Sato's battery 8. EX1005, ¶[0136] ("Battery 8. A positive electrode plate was formed in the same manner as in Example 1."). As Petitioner's expert Dr. von Sacken's explains, a POSA reading Sato, particularly paragraphs [0111]-[0113] and [0136], would have plainly understood that the positive electrode in battery 8 thus includes a first recess to receive a positive lead. EX1003, ¶136, fn. 5; Pet. 32 (showing Dr. von Sacken's schematic representation of Sato's positive electrode used in batteries 1 and 8). Sato's battery 8 also includes a negative electrode with a second recess receiving the negative lead. EX1005, ¶¶[0136]-[0137] (attaching the negative lead to a recess defined in the negative electrode of battery 8); Pet. 29, 33-34; EX1003, ¶¶127-128. Thus, Sato's battery 8 includes a positive electrode with a first recess and a negative electrode with a second recess. Pet., 11-12, 26, 29, 33-34, 39-40; EX1003, ¶¶102-103, 115, 120-121, 127-128, 134-142.

Still further, other description in Sato confirms the disclosure of a lithium-ion battery with a first recess and a second recess. EX1005, ¶[0094]; Pet. 23, 40; EX1003, ¶[0115]. Specifically, Sato describes that “[i]t is sufficient that *at least one* of the positive electrode and the negative electrode satisfies the above conditions for the lead attachment position.” EX1005, ¶[0094] (emphasis added). This further supports, as Dr. von Sacken attests, that Sato discloses that the positive electrode *and/or* the negative electrode includes a recess located in the middle portion of the electrode. EX1003, ¶115 (explaining the language “at least one” in paragraph [0094] of Sato includes “the positive electrode and/or the negative electrode”); Pet., 33-34, 39-41 (showing Dr. von Sacken’s schematic representation of Sato’s positive electrode with a first recess and negative electrode with a second recess). Indeed, the primary purpose of Sato’s battery designs is to provide recesses in the “middle portion” of the electrode to reduce “current collection resistance,” while preventing the electrodes from “bend[ing] at an acute angle” to “reduc[e] the possibility of damage on the separator.” EX1005, ¶40, *see also* ¶¶[0007]-[0009], [0015], [0024]; EX1003, ¶102.

Ignoring the primary teachings of Sato, PO mischaracterizes Sato as disclosing “eleven embodiments” of batteries that would allegedly lead a POSA to conclude that Sato fails to disclose positive and negative electrodes with centrally located recesses. Br. at 31-32. This is false. Sato describes example batteries with

varying recess dimensions to explain why controlling the recess dimensions helps prevent stress concentrations within the battery during use. EX1005, ¶¶40-42, 146-148; EX1003, ¶¶102, 115.

In fact, Sato's disclosure is directed to only three battery configurations: (1) only the positive electrode includes a recess, (2) only the negative electrode includes a recess, and (3) both the positive electrode and the negative electrode include a recess. *See* EX1005, ¶[0094] ("at least one of the positive electrode and the negative electrode satisfies the above conditions for the lead attachment position."), claim 6; EX1003, ¶115. Thus, contrary to PO's assertion (Br. at 31-33), the teachings of Sato's embodiments do not need to be pieced together to recognize these three configurations, including a battery with first and second recesses. EX1003, ¶115.

PO's arguments turn a blind eye to the entirety of Sato's disclosure, particularly Sato's primary purpose—designing centrally located recesses. Sato's disclosure of a battery with first and second recesses, as claimed, further supports Petitioner's meritorious unpatentability grounds.

The strength of the Petition's merits is confirmed by PO's misguided arguments. Factor 6 weighs in favor of institution.

III. THE INTERIM GUIDANCE DOES NOT SUPPORT DISCRETIONARY DENIAL.

All of the factors discussed in the memorandum on Interim Processes for PTAB Workload Management issued March 26, 2025, weigh against discretionary denial here.

A. The Petition’s technical subject matter and appropriate reliance on expert testimony weigh against discretionary denial.

PO contends that the Petition heavily relies on expert testimony to show that the prior art discloses a second insulating glue layer having a length greater than the length of the second recess. Br. at 35-37. But PO continues to ignore the prior art’s explicit teachings of the claimed elements.

Contrary to the PO’s assertions, the prior art is clear: the exposed conductor surface and terminals must be insulated from the active material of an opposing electrode to prevent short-circuiting and lithium plating. Pet., 9, 13-14, 16, 20-23, 36-38. Indeed, Takemura describes that “if there is no opposing negative electrode active material 4, such as the positive electrode active material 3 arranged around the negative electrode current collector terminal 2 in FIG. 9, *the surface of the positive electrode active material 3 has to be covered with masking tape 7.*”

EX1006, ¶[0008] (emphasis added); *see also* EX1005 ¶¶[0113], [0137] (describing to insulate leads from the active material of the opposing electrode). This disclosure *alone* in the prior art would have disclosed to a skilled artisan reader of the ’498 patent that the length of insulating tapes in Sato and Takemura must be

longer than the length of the exposed current collector surface. Pet., 36-37. Indeed, there would have been no alternative sizing arrangement to prevent lithium plating and short-circuiting. Pet., 38-39.

Dr. von Sacken's expert testimony confirming this truth does not supplant the teachings of Sato and Takemura themselves. Rather, his testimony simply and directly supports precisely what a POSA would have understood from Sato's and Takemura's express disclosures. EX1003, ¶¶149-155. That is, Dr. von Sacken reiterates the plain fact that a POSA would have recognized that the references unsurprisingly teach to insulate *all* of the exposed conductor surface to prevent lithium plating and short-circuiting. *Id.* Dr. von Sacken supports this understanding by providing helpful context in the technology background section of his declaration, explaining that the strategic placement of insulating tapes to cover exposed conductive surfaces in lithium-ion batteries was a common solution for preventing lithium plating. EX1003, ¶¶31-73.

Petitioner does not, as PO wrongly contends, rely solely on Dr. von Sacken's testimony to disclose a missing claim element lacking in the prior-art patents and printed publications. Rather, Dr. von Sacken's testimony confirms what the prior art would disclose to a POSA. As is entirely appropriate, his declaration provides context that explains the claim terms, the state of the art, the disclosures of the references, and the motivation for combining the prior art references. Indeed, Dr.

von Sacken's focused testimony serves the role that the Interim Guidance identifies as "most helpful" in the IPR context.

B. Compelling economic and public interests weigh against discretionary denial.

Battery safety is at the forefront of in-demand and developing technology. Today, every person carries portable electronic devices like cell phones, laptops, and tablets with them at all times, especially travelers on airlines and other commercial transportation. As electronic devices become more powerful and battery capacity increases, the danger of short circuits, battery fires, and even explosions increases.

According to FAA statistics, incidents of lithium battery fires on U.S. flights have surged by 388% since 2015, now happening nearly twice a week. EX1026, 0003. A passenger involved in one such incident reported to CBS News: "It was absolute chaos. It truly felt like every man for themselves. And it was terrifying. I didn't know if we were going to explode. All I knew was I needed to get out and survive." *Id.* David Wroth of UL Standards & Engagement, an organization focused on safety research, commented: "Any fire at 30,000 feet is unacceptable." *Id.* A survey conducted by UL with over 800 flight attendants showed that 87% are concerned about the risks posed by lithium batteries on airplanes, with more than a third feeling that more should be done to ensure passenger safety. *Id.*

Safety measures to prevent these accidents are imperative. Applying insulating glue layers over the electrode's conductive and terminal surfaces that prevent short-circuiting (which could lead to battery fires) in the first place is far preferable to regulations or restrictions on passengers traveling with electronic devices. There is therefore a compelling need to ensure that only truly deserving inventions receive exclusive rights in this burgeoning area of technology. Patents that seek to monopolize broad technological concepts and read on prior art stifle innovation and competition. Enforcement of these patents drives up the costs of safe batteries for consumers. The '498 patent is one such undeserving monopoly.

Petitioner's batteries are a crucial commodity in the consumer-electronics market. Household names like HP and Apple have multi-million-dollar contracts with Petitioner to supply explosion-safe batteries for their devices. Allowing invalid patents to disrupt these supply chains and deprive these market-leading companies of their choice in batteries will ultimately hurt the economy and needlessly endanger consumers. The PTAB should avert this outcome by instituting review of the challenged claims, and after evaluating patentability on the merits, finding all claims unpatentable.

C. PO identifies a number of factors as allegedly “neutral” or favoring denial that actually weigh against discretionary denial.

No other forum has already adjudicated the validity or patentability of these claims. Notably, the Petition applies prior art that was not previously presented to

the Office, but which discloses all of the '498 patent's claim limitations—including the limitations that led to allowance over the prior art cited during prosecution. Thus, this factor weighs against discretionary denial.

The fact that there have been no material changes in the law does *not* favor discretionary denial here, as PO alleges, where the patent has not been in force long and there were clear errors in prosecution. PO argues that the Board should not revisit and second-guess the Examiner's decisions so soon after the claim's issuance, but that ignores that the Examiner never considered the art cited in the petition, specifically Sato, Takemura, and Kobayashi. DD. Br. at 34-35.

To the contrary, the fact that the patent has not been in force long further supports that there are no settled expectations of the parties, which weighs against discretionary denial. *Contra* Br. at 37 (suggesting, without explanation, that the settled expectations factor is neutral). These factors, on balance support an institution decision on the merits.

D. Other issues that PO raises under Memo Factor 7 do not favor discretionary denial.

The only issue PO raises under Memo Factor 7 is the “numeracy of grounds,” as allegedly favoring discretionary denial. Br. at 37-38. The Petition presents only two sets of grounds: (1) based on Sato-Takemura, and (2) based on Takemura-Oh-539-Kobayashi. The numeracy of these grounds is, if anything, average. And the fact that the Petition demonstrates the unpatentability of each

claim twice only underscores the errors in prosecution and shines a spotlight on the reality that the claims are not valid.

In support of its argument that a large number of grounds supports discretionary denial, Petitioner cites an outlier case where the invalidity grounds were voluminous and excessive. *Id.* (citing *Adaptics Ltd. v. Perfect Co.*, IPR2018-01596, Paper 20 at 17-18 (P.T.A.B. Mar. 6, 2019)). In that case, the petitioner presented “hundreds of possible combinations” due to the use of “and/or” with numerous references, including a “catch-all” ground that asserted two references (either or) in combination with a list of eight potential secondary references using and/or for the secondary references. *Adaptics*, IPR2018-01596, Paper 20 at 17-18. That very different case, with remarkably different facts, is inapplicable here and does not compel a similar outcome.

E. PO avoids raising other considerations under Memo Factor 7 that warrant *inter partes* review of the challenged claims.

PO conveniently omits that issued claims recited in a Chinese patent related to the '498 patent and overlapping in scope have been invalidated over a common reference (Sato) raised in the Petition. The '498 patent claims priority to Chinese Patent Application No. 201420030319.4U, which was filed January 17, 2014. The Chinese counterpart application was granted on July 23, 2014 as CN203733894U (the “CN894 patent”). The elements in claim 1 of the '498 patent generally correspond to limitations recited in claim 1 of the CN894 patent.

On May 24, 2024—three months after the '498 patent was issued by the USPTO—the China National Intellectual Property Administration (CNIPA) issued a written decision invalidating all claims of the CN894 patent. In the written decision, the CNIPA cited China Patent Application No. CN102187497A—the Chinese counterpart of Sato—in determining that claim 1 was invalid. On March 20, 2025, the Beijing IP court affirmed the CNIPA's written decision.

The invalidity finding by the CNIPA based on Sato's Chinese counterpart further confirms the strength of the Petition's merits.

IV. CONCLUSION

When the *Fintiv* Factors and other discretionary considerations are evaluated holistically to determine whether efficiency and integrity of the patent system are best served by denying or granting institution of this IPR, the answer here is clear: the Director should not exercise discretion to deny institution.

Respectfully submitted,

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CERTIFICATE OF WORD COUNT (37 C.F.R. § 42.24(d))

1. This Petitioner's Opposition to Patent Owner's Discretionary Denial Brief complies with the type-volume limitation of 14,000 words, comprising 7,740 words, excluding the parts exempted by 37 C.F.R. § 42.24(c).

2. This Patent Owner's Reply Brief on Discretionary Denial complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14-point Times New Roman font.

Respectfully submitted,

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CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e))

I certify that the above-captioned **PETITIONER'S OPPOSITION TO PATENT OWNER'S DISCRETIONARY DENIAL BRIEF** and associated Exhibits 1026-1032 were served in their entireties on June 10, 2025, upon the following parties via electronic mail:

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Respectfully submitted,

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