UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNITED MICROELECTRONICS CORPORATION,
AND
UMC GROUP (USA),

Petitioner

v.

ADVANCED INTEGRATED CIRCUIT PROCESS LLC,

Patent Owner

Case IPR2025-01091
Patent 8,198,686

PATENT OWNER'S DISCRETIONARY DENIAL BRIEF PURSUANT TO THE BOARD'S MARCH 26, 2025 INTERIM PROCESSES FOR PTAB WORKLOAD MANAGEMENT

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EX2002	**Complaint for Patent Infringement,** Dkt. No. 1, *Advanced Integrated Circuit Process LLC v. United Microelectronics Corporation,* Case No. 2:24-cv-00730, (E.D. Tex. Filed September 6, 2024)
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EX2004	**Docket Sheet**, *Advanced Integrated Circuit Process LLC v. United Microelectronics Corporation,* Case No. 2:24-cv-00730, (E.D. Tex.) (Printed August 16, 2025)
EX2005	**Docket Control Order**, Dkt. No. 51, *Advanced Integrated Circuit Process LLC v. United Microelectronics Corporation,* Consolidated Case Nos. 2:24-cv-00730, -00623, (E.D. Tex. Filed February 14, 2025)
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EX2022	**United Microelectronics Corporation's Motion to Dismiss Plaintiff's Claims for Direct Infringement and Pre-Suit Indirect Infringement**, Dkt. No. 15, *Advanced Integrated Circuit Process LLC v. United Microelectronics Corporation,* Consolidated Case Nos. 2:24-cv-00730, -00623, (E.D. Tex. Filed December 6, 2024)
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EX2051	**UMC's Motion For Joinder Under 35 U.S.C. § 315(c) and 37 C.F.R. § 42.122(b) To Related *Inter Partes* Review IPR2025-00831**, Filed as Paper 7 in IPR2025-01093 (June 30, 2025)
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Petitioners United Microelectronics Corporation and UMC Group (USA) ("UMC") seek to burden the Board and patent owner Advanced Integrated Circuit Process, LLC ("AICP") with duplicative litigation over the validity of U.S. Patent No. 8,198,686 ("the '686 patent"). The Director recently denied institution on another petition challenging the '686 patent, *Taiwan Semiconductor Manufacturing Company Ltd. v. Advanced Integrated Circuit Process LLC*, IPR2025-00682, Paper 17 (U.S. Pat. & Trademark Off. August 14, 2025) (Acting Dir. C.M. Stewart) ("*Advanced Integrated Circuit Process*"), and the justification for discretionary denial is even stronger here. First, the validity of the '686 patent will be resolved at trial in federal district court *six months before the Board's projected date for a final written decision in this proceeding*. Second, this patent has been in force for thirteen years. The impending trial date, AICP's strong settled expectations based on the age (and nearing expiration) of the '686 patent, UMC's significant delay in filing both its petition and stipulation, the substantial overlap between the Petition and the issues in the district court, and the other relevant factors all indicate this proceeding would duplicate litigation in a parallel forum, waste public and private resources, and disturb settled expectations. AICP therefore respectfully requests that the Director grant discretionary denial pursuant to 35 U.S.C. § 314(a).

I. INTRODUCTION

The '686 patent is asserted in litigation alongside six other patents including

United States Patent No. 8,907,425 ("the '425 patent"). The Director's recent decision denying institution with respect to other petitions challenging the '686 and '425 patents highlighted several facts. First, after noting that "the projected final written decision due date [for those petitions was] October 18, 2026" and "[t]he district court's scheduled trial date is June 22, 2026," the Director found it "unlikely that a final written decision in these proceedings will issue before district court trial occurs." *Advanced Integrated Circuit Process LLC*, IPR2025-00682, Paper 17 at 2. Second, the Director commented that the '686 patent has been "in force for thirteen years," thereby "creating strong settled expectations for [AICP]." *Id*. at 2. The case for discretionary denial of this Petition is even stronger because, due to UMC's lengthy filing delay, the projected final written decision date is December 25, 2026, ***two months later*** than the projection for the prior petition, rendering it even more likely that the June 2026 trial will occur before any final written decision.

Congress created *Inter Partes* Review ("IPR") to provide a "***quick*** and ***cost effective alternative***[] to litigation." *WesternGeco LLC v. ION Geophysical Corp.*, 889 F.3d 1308, 1317 (Fed. Cir. 2018) (quoting H. Rep. No. 112-98, at 40, 48 (2011)) (emphasis added). But when a jury trial on the validity of the same patent is scheduled to occur before the conclusion of any potential IPR, as in this case, "[i]nstitution of an *inter partes* review . . . would not be consistent with 'an objective of the AIA [] to provide an effective and efficient alternative to district

court litigation.'" *NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8, at 20 (PTAB Sept. 12, 2018) (precedential) (quoting *Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19, at 16–17 (PTAB Sep. 6, 2017) (precedential in relevant part)). Applying the *Fintiv* factors in this case confirms that instituting IPR on the Petition would not be "quick" or "cost effective," nor even an "alternative to litigation," as shown herein. *See generally Apple, Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB March 20, 2020) (precedential) [hereinafter "*Fintiv I*"].

Trial is scheduled for June 2026 in two consolidated infringement lawsuits asserting the '686 and '425 patents—as well as five other patents with closely related subject matter that UMC is also challenging in parallel IPR petitions—against UMC and its co-defendant Taiwan Semiconductor Manufacturing Corporation ("TSMC") (collectively, "the Lawsuits"). The trial court will therefore resolve all validity challenges to the '686 patent, rather than just the small subset raised in the Petition, roughly ***six months before*** the Board's statutory deadline to issue a final written decision in this matter on December 25, 2026.

Moreover, the likelihood of a stay in the district court litigation is effectively zero. The district court's "consistent and long established practice [is] to deny motions to stay pending IPR . . . when the PTAB [has] instituted review on less than all asserted claims of all asserted patents. . . ." *AGIS Software Development LLC v.*

Google LLC, No. 19-cv-361-JRG, 2021 U.S. Dist. LEXIS 24195, at *9 (E.D. Tex. Feb. 9, 2021). Because the Director has discretionarily denied institution as to the '686 and '425 patents, *Advanced Integrated Circuit Process LLC*, IPR2025-00682, Paper 17 at 2, TSMC's pending stay motion cannot be granted under existing law. Even if UMC belatedly seeks a stay, it too will likely be denied. Due to UMC's unexplained delay in filing its petition, the projected date for the institution decision in this proceeding will occur ***after*** the *Markman* hearing and shortly before the close of fact discovery in the parallel litigation. Moreover, UMC has not only declined to file a stay motion but also inexplicably declined to join TSMC's motion.

The relative timing of the trial and the projected final written decision is largely a problem of UMC's own making. Although TSMC began filing IPR petitions on AICP's seven patents on March 28, 2025, UMC delayed beginning filing its IPRs for two months, until May 23, 2025 even though UMC and TSMC received AICP's infringement contentions at the same time and even though UMC represents in its joinder motion that "[t]he UMC Petition is substantively identical to the TSMC IPR petition" that was filed much earlier. UMC's unexplained delay alone justifies discretionary denial.

The Board should give little weight to UMC's untimely stipulation. Despite the Board's guidance that stipulations should be filed "as soon as practicable, so that the patent owner may address the impact of the stipulation in its discretionary

denial brief," EX2054 at 5, the Petition has no stipulation. Instead, TSMC and UMC played tactical games by filing untimely stipulations ***after*** reviewing two of AICP's discretionary denial briefs relating to TSMC's IPR petitions. As a result, AICP spent significant time and resources briefing the absence of reasonable stipulations in its discretionary denial briefs, only to have the rug pulled out from under it. Even worse, UMC and TSMC timed the submission of those stipulations *one day* before TSMC's opposition briefs were due, thereby relegating AICP to briefing the effects of the late stipulations in a very short and very time-constrained reply brief. EX2044 at 1. If the Board gave weight to such untimely stipulations, it would incentivize petitioners to delay filing meaningful stipulations, thereby blocking patent owners them from addressing them in their opening discretionary denial briefs and necessitating reply and sur-reply briefs in every IPR proceeding.

Finally, other relevant considerations weigh heavily in favor of discretionary denial. The '686 patent has been in force for thirteen years, thereby "creating strong settled expectations" for AICP. *Advanced Integrated Circuit Process LLC*, IPR2025-00682, Paper 17 at 2 (addressing the '686 patent). Because the patent expires in less than four years and has been unchallenged by anyone during the lengthy period since it issued, UMC (like TSMC) will be unable to provide any "persuasive reasoning why an *inter partes* review is an appropriate use of Board resources." *Id*. And other factors, including the complexity of the present multi-

patent, multi-party dispute and the potential need for highly relevant foreign third-party discovery ill-suited to a Board proceeding, all counsel against institution.

II. FACTUAL BACKGROUND

A. AICP Files the Lawsuits and Trial Is Set for June 2026

AICP filed suit against UMC in the Eastern District of Texas on September 6, 2024 (the "UMC Lawsuit"), shortly after it filed suit against UMC's co-defendant TSMC, on August 1, 2024 (the "TSMC Lawsuit"). EX2002; EX2001. Both Lawsuits involve the same seven patents, including the '686 and '425 patents. *Id.* The Lawsuits are both assigned to the Honorable Rodney Gilstrap and have been consolidated for all pre-trial purposes. EX2003 (ECF 12). In a January 21, 2025 scheduling conference, Judge Gilstrap "provide[d] counsel with Claim Construction and Jury Selection/Trial dates." EX2004 (UMC Docket Sheet) at 9. The Claim Construction hearing is scheduled for December 18, 2025, and trial is scheduled to begin with jury selection on June 22, 2026. EX2005 (ECF 51) at 1, 4. Notwithstanding three subsequent orders changing various interim deadlines, those two dates have never changed. *See* EX2006 (ECF 55); EX2007 (ECF 59); EX2008 (ECF 83).

B. The Parties Vigorously Litigate the Lawsuits

The parties in the Lawsuits have vigorously litigated them, as reflected by the more than 100 entries on the docket sheets, many of them substantive. EX2004;

EX2009. The parties have expended significant time and resources to develop their claims and defenses already and even more will be done by the projected date for an institution decision.

First, the parties have developed their infringement and invalidity theories. AICP served preliminary infringement contentions on January 30, 2025. EX2010 (ECF 45). Since then, AICP has amended its contentions as to both UMC and TSMC. EX2011 (ECF 54); EX2012 (ECF 64). UMC's and TSMC's invalidity contentions—originally due March 4, 2025—were served on May 1, 2025 after multiple extensions of the deadline. EX2013 (ECF 104); EX2014 (ECF 106); *see* EX2015 (ECF 28) at 2; EX2005 (ECF 51) at 6; EX2008 (ECF 83) at 6. UMC's invalidity contentions are 67 pages long, not including the five appended invalidity claim charts relating to the '686 patent. EX2017. UMC's invalidity contentions also "fully incorporate[] by reference" TSMC's IPR petitions and invalidity contentions, *id*. at 5, the latter of which is 286 pages long (not including the appended invalidity charts, eight of which are directed to the '686 patent). EX2016 at 187.

Second, the parties have invested significant effort into fact discovery already, and fact discovery will be nearing completion by the time of any institution decision. As of the date of this filing, 57 interrogatories have been issued. EX2018 ¶¶ 3–4. Two depositions have already been taken, and two more were already noticed. *Id.* ¶ 5. Pursuant to the district court's protective order, AICP's designated

reviewers have made at least seven visits to review TSMC's sensitive technical information at the offices of TSMC's litigation counsel and one visit to review UMC's sensitive technical information at the offices of UMC's litigation counsel. *Id.* ¶ 6; EX2019 (ECF 71). Three motions to compel discovery on various issues have been filed and briefed. *See* EX2004 (first motion and response, ECF 78 & 88; second motion and response, ECF 80 & 91; third motion and response, ECF 89 & 100). These were later resolved without court intervention. EX2020 (ECF 102).

Under the current docket control order, the deadline for substantial completion of document production (and exchange of privilege logs) is November 5, 2025, EX2008 (ECF 83) at 5, more than a month before the Board's December 25, 2025 institution deadline. All claim construction activities—including exchange of claim terms, exchange of proposed constructions and evidence, submission of claim construction briefing, and the *Markman* hearing scheduled for December 18, 2025—will also have taken place before the institution deadline. *Id.* And the deadline for completing fact discovery and filing motions to compel will occur the following month (January 29, 2026). *Id.* Hence, by the time this proceeding would be instituted (if at all), the parties will be nearing the completion of the litigation.

Third, significant motion practice has already occurred in the Lawsuits. As noted above, multiple motions seeking to compel discovery have been filed. Similarly, the amendments to AICP's infringement contentions (referenced above)

involved motions for leave to amend and a motion to compel supplementation. EX2011 (ECF 54); EX2012 (ECF 64); EX2004 at 12 (describing ECF 90, sealed motion to strike and compel supplementation of contentions). In addition, UMC filed a motion to dismiss, EX2022 (ECF 15), and TSMC filed its own motion to dismiss or transfer venue, EX2009 (describing TSMC ECF 26,[1] sealed motion to dismiss or transfer), and a motion to stay the litigation pending proceedings on its IPR petitions, EX2021 (ECF 99). UMC did not join TSMC's motion to stay, *see* EX2021 (ECF 99) at 1, a fact that TSMC embraced in its Reply to AICP's opposition to the stay motion, *see* EX2023 (ECF 109) at 2 ("The Court can allow litigation against UMC to continue, while staying the case against [TSMC].").

Motions seeking the issuance of letters rogatory in foreign countries have also been filed. EX2031; EX2034. These motions were unopposed and the district court recently granted them. EX2038; EX2039. Many of TSMC's and UMC's IPR petitions involve references that do not qualify as prior art under Section 102(b). For example, the Petition asserts the Aoyama and Akasaka references, which UMC concedes are only presumptively "[p]rior art under Pre-AIA 35 U.S.C. §§102(a) and

[1] Except as otherwise stated, all references to electronic case filing ("ECF") numbers refer to the docket sheet for the UMC Lawsuit, which was designated the "lead case." EX2003.

(e)." Petition at 2. Because, as further explained *infra*, such references can potentially be antedated by evidence of an earlier invention date, assessing the validity of the '686 patent implicates invention date discovery. Accordingly, the motions for letters rogatory requested, *inter alia*, evidence relating to conception and reduction to practice for the '686 patent. EX2032 at 17 (¶ 8), 20 (¶¶ 15-16).

C. UMC and Co-Defendant TSMC File IPR Petitions Challenging All Asserted Patents

1. TSMC Files IPR Petitions Beginning in March 2025

Approximately seven months after the TSMC Lawsuit was filed, TSMC began filing, on a rolling basis, petitions for IPR. To date, TSMC has filed seven petitions, one for each patent-in-suit, including the '686 patent that is the subject of this proceeding. As reflected in the chart below, the Director has already discretionarily denied institution with respect to two patents, including the '686 patent. *Advanced Integrated Circuit Process*, IPR2025-00682, Paper 17 at 2. The anticipated deadline for final written decisions in the remaining IPRs is about ***five months after*** the June 2026 trial date set for the Lawsuits.

IPR No.	**Patent**	**Filing Date**	**Notice of Filing Date Accorded**	**Institution Decision Deadline**	**Final Written Opinion Deadline**
IPR2025-00682	'686	03-28-2025	04-18-2025	**Discretionary Denial**	**Discretionary Denial**

IPR No.	Patent	Filing Date	Notice of Filing Date Accorded	Institution Decision Deadline	Final Written Opinion Deadline
IPR2025-00683	’425	03-26-2025	04-18-2025	**Discretionary Denial**	**Discretionary Denial**
IPR2025-00828	’227	04-15-2025	05-13-2025	11-13-2025	11-13-2026
IPR2025-00829	’764	04-15-2025	05-13-2025	11-13-2025	11-13-2026
IPR2025-00830	’180	04-15-2025	05-13-2025	11-13-2025	11-13-2026
IPR2025-00831	’076	04-15-2025	05-12-2025	11-12-2025	11-12-2026
IPR2025-00832	’779	04-11-2025	05-12-2025	11-12-2025	11-12-2026

TSMC’s petitions each included a *Sotera* stipulation stating that “if IPR is instituted, [TSMC] will not pursue in the related district court proceeding any ground that [TSMC] raised or reasonably could have raised against the challenged claims during the instituted IPR.” *See, e.g.*, EX2040 at 85.

2. UMC Inexplicably Delays Filing IPRs Until May 2025

On June 6, 2025, more than two months *after* TSMC began filing IPRs, UMC filed the Petition challenging the ’686 patent. Petition at 1. In total, UMC has filed seven IPR petitions challenging all seven asserted patents. As shown in the chart below, due to UMC’s delay, the anticipated deadline for final written decision in this IPR (indicated by underlining) as well as the other six IPRs, is ***six months after***

the June 2026 trial date set for the Lawsuits.[2]

IPR No.	Patent	Filing Date	Notice of Filing Date Accorded	Institution Decision Deadline	Final Written Opinion Deadline
IPR2025-01053	’779	05-23-2025	06-20-2025	12-20-2025	12-20-2026
IPR2025-01076	’227	06-02-2025	06-24-2025	12-24-2025	12-24-2026
IPR2025-01079	’764	06-02-2025	06-24-2025	12-24-2025	12-24-2026
IPR2025-01091	’686	06-06-2025	06-24-2025	12-24-2025	12-24-2026
IPR2025-01092	’180	06-06-2025	06-24-2025	12-24-2025	12-24-2026
IPR2025-01090	’425	06-06-2025	06-25-2025	12-25-2025	12-25-2026
IPR2025-01093	’076	06-06-2025	06-25-2025	12-25-2025	12-25-2026

UMC’s petitions did ***not*** include any stipulations.

3. After AICP Exposes UMC’s and TSMC’s Gamesmanship, They File Untimely Stipulations

On June 18, 2025, AICP filed the first two of its discretionary denial briefs

[2] UMC has filed motions for consolidation or joinder with TSMC’s petitions. Now that the Director has discretionarily denied institution with respect to the ’686 and ’425 patents, UMC’s motions pertaining to those patents are moot. While it would be speculative to make assumptions about the remainder, even if TSMC’s remaining petitions were instituted and UMC’s motions were granted, the final written decision deadlines are still about five months ***after*** the June 2026 trial date.

relating to TSMC's seven IPR petitions. EX2041; EX2042. In those briefs, AICP highlighted the tactical game TSMC and UMC were playing with stipulations. First, AICP pointed out that TSMC's petitions included effectively meaningless *Sotera* stipulations because they did not extend to TSMC's "invalidity grounds [in the district court] that combine all the primary references asserted in the Petition (and all but one of the secondary references) with allegedly 'on sale' and 'public use' prior art that cannot be raised in an IPR." EX2041 at 3, 30-31; EX2042 at 3, 30-31. As a result, TSMC's original *Sotera* stipulation left TSMC free to pursue effectively the same invalidity theories in the district court as in its IPR petitions, irrespective of whether IPR proceedings were instituted. *Id*. Second, AICP noted that "UMC's invalidity contentions adopt the [TSMC's] Petition's invalidity theories" even though UMC had ***not*** offered any stipulation at all, meaning that UMC could advance in the Lawsuits all of TSMC's invalidity theories, even any TSMC could not. EX2041 at 3, 31-32; EX2042 at 3, 31-32. Thus, both parties, taken together, retained the right to present to the district court all prior art invalidity theories, even those in an instituted IPR proceeding.

On July 17, 2025, one day before TSMC's discretionary denial opposition briefs were due (and more than a month after UMC filed its Petition), both TSMC and UMC submitted untimely stipulations. EX2043; EX2037. By filing their stipulations so late, TSMC and UMC had deprived AICP of the opportunity to

address them in its opening briefs and relegated AICP's response to a portion of a short reply brief requiring extremely fast turnaround. EX2044 at 1.

D. UMC and TSMC Assert the Petition's Invalidity Theories in Their Contentions in District Court

On May 1, 2025, after TSMC had filed the last of its seven IPR petitions and before UMC filed the first of its petitions, UMC and TSMC each served their respective invalidity contentions in the Lawsuits. EX2013; EX2014. Both UMC and TSMC expressly incorporated the positions and evidence cited in TSMC's seven IPR petitions. *See* EX2016 at 55; EX2017 at 5, 7, 27, 38, 52. In each of its motions for consolidation or joinder, UMC asserts "[t]he UMC Petition is substantively identical to the TSMC IPR petition as it relies on the same prior art and grounds, and substantively the same evidence and arguments." EX2045 at 1-2; EX2046 at 1-2; EX2047 at 1; EX2048 at 1; EX2049 at 1; EX2050 at 1; EX2051 at 1.

Putting aside the foregoing incorporation by reference, the grounds presented in the Petition against the claims at issue in the Lawsuits—claims 25-28, 31, and 35—are also set forth in UMC's invalidity contentions. EX2017 at 1. For these claims, UMC asserts (i) obviousness based on Aoyama (EX1005) and Hsu823 (EX1006) ("Ground I") and (ii) obviousness based on Akasaka (EX1008) and Hsu823 (EX1006) ("Ground II"). Petition at 3. UMC relies on the same references (using the same names) in its invalidity contentions from the litigation. *Compare id.*

with EX2017 at 27–38. UMC employs all those same references in the same combinations in both the Petition and its invalidity contentions, as shown in the chart below.

Petition Ground	**Assertion in Petitioner's Invalidity Contentions**
I: Aoyama and Hsu823	EX2017 at 27 – asserting obviousness (*see id.* at 32) based on Aoyama, and the combination with Hsu823, citing (in part) claim chart 686A1
II: Akasaka and Hsu823	EX2017 at 27 – asserting obviousness (*see id.* at 32) based on Akasaka, and the combination with Hsu823, citing (in part) claim chart 686A2

The claim charts corresponding to these combinations reflect that UMC is pursuing the same theories in the district court as in the Petition. *Compare* Petition Ground I *with* EX2025 (claim chart 686A1); *compare* Petition Ground II with EX2026 (claim chart 686A2).

In addition to these grounds, UMC asserts multiple other combinations involving the same three primary references, as well as combinations based on additional primary references. EX2017 at 32.

UMC's invalidity contentions also "fully incorporate[] by reference the Invalidity and Ineligibility Contentions served by [TSMC] in this Action" and also "incorporate[] by reference all docket entries and exhibits to the [seven] Petitions for [IPR] filed by [TSMC] against [AICP]," which UMC lists by case number.

EX2017 at 5. Specifically, with respect to the '686 patent, UMC "fully incorporates by reference the Petition for *Inter Partes* Review No. IPR2025-00682 and the Declaration of Dr. Scott E. Thompson (Ex-1003) thereto." *Id.* at 27. UMC includes similar language incorporating the positions and evidence presented in TSMC's other IPR petitions. *See id.* at 7, 38, 52. UMC is thus advancing in the UMC Lawsuit all of the invalidity theories in the Petition, all of the invalidity theories in TSMC's corresponding IPR petition, and all of TSMC's theories ostensibly predicated on allegedly "on sale" and "in public use" prior art.

While UMC did not specifically argue non-enablement in its Invalidity Contentions, it incorporated TSMC's Invalidity Contentions by reference, and TSMC argued the Asserted Claims were not enabled. EX2016 at 273-75, 278-80.

E. UMC Declines to Join TSMC's Motion for a Stay in the District Court

On April 25, 2025, TSMC filed a motion to stay the TSMC Lawsuit pending the outcome of its IPR petitions. EX2021. ***UMC did not join (and has not since joined) that motion***. *See id.* On May 9, 2025, AICP filed its opposition to TSMC's request for a stay. EX2024. In that opposition, AICP noted that, even if the motion were granted, "AICP's related action against United Microelectronics Corporation ('UMC') . . . would continue" because "UMC has not sought a stay." *Id*. at 6. In its reply brief, rather than rebutting this point, TSMC embraced it, explaining that "[t]he Court can allow litigation against UMC to continue, while staying the case

against TSMC." EX2023 at 2. In other words, TSMC advocated for duplication, with TSMC pressing invalidity theories before the PTAB, while UMC advanced the same theories in the Lawsuits. UMC sat silent throughout this exchange.

Only after AICP noted the relevance of UMC's silence to the discretionary denial analysis on June 18, 2025, *see* EX2041 at 2-3, 20-21, did UMC belatedly stipulate on July 17, 2025 that "[i]f institution of the [UMC] Petition is granted," UMC will "seek a stay of th[e] Litigation pending resolution of the instituted IPR." EX2037 at 2. But UMC could file a motion for a stay at any time, yet it has inexplicably declined to do so.

III. LEGAL PRINCIPLES

The USPTO considers the presence and status of parallel district court litigation in determining whether to deny institution. *See NHK Spring Co. Ltd.*, IPR2018-00752, Paper 8, at 20 (precedential); *Fintiv I*, at 5–6; *see also Gen. Plastic Indus. Co., Ltd.*, IPR2016-01357, Paper 19, at 16–17 ("[W]e recognize that an objective of the AIA is to provide an effective and efficient alternative to district court litigation . . . .").

Fintiv "sets forth factors that balance considerations of system efficiency, fairness, and patent quality when a patent owner raises an argument for discretionary denial due to the advanced state of a parallel proceeding." *Apple, Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15, at 7–8 (PTAB May 13, 2020)

(informative) [hereinafter "*Fintiv II*"]. The factors are:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

Fintiv I, at 6. "These factors relate to whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding." *Id.* "In evaluating the factors, the Board takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review." *Fintiv II*, at 8.

IV. ARGUMENT

A. The Fintiv *Factors Each Weigh in Favor of Discretionary Denial*

Instituting a proceeding on the Petition would undermine the policy goals that Congress sought to promote by creating, in IPRs, a "quick and cost effective alternative[] to litigation." *WesternGeco LLC*, 889 F.3d 1308, at 1317. As it stands now, the district court is presiding over the two consolidated Lawsuits, which

encompass ***all*** validity challenges to ***seven*** patents (including the '686 patent) from ***two*** different challengers (including TSMC). And the district court will have resolved those challenges through trial ***six months*** before the Board completes its review of the much smaller subset of challenges raised in the Petition. Indeed, because TSMC is not a party to UMC's seven IPR petitions and UMC is not a party to TSMC's seven IPR petitions, to bind both parties as to all seven patents on just a subset of the validity challenges in the district court, the USPTO would need to institute proceedings on ***fourteen*** IPRs.[3] As such, this case is a poster child for discretionary denial under *NHK* and *Fintiv*.

Moreover, the '686 patent has been in force for thirteen years and will be expiring in less than four years. EX1001. As was the case for TSMC's challenge of this patent, on which the Director recently granted discretionary denial, this lengthy

[3] For each of its petitions, UMC has sought consolidation with or joinder to the corresponding TSMC proceeding. Two of those motions, including the one related to this Petition, are moot following the Director's recent grant of discretionary denial. *Advanced Integrated Circuit Process LLC*, IPR2025-00682, Paper 17 at 2-3. UMC's remaining motions are not ripe to be considered at this stage of the proceedings, and trying to predict a panel's potential future decisions on those motions would be speculative.

period of time creates "strong settled expectations for" AICP and these "strong settled expectations tip the balance in favor of discretionary denial." *Advanced Integrated Circuit Process LLC*, IPR2025-00682, Paper 17 at 2-3. And, as was the case for TSMC's challenge to this patent, institution here would not be "an appropriate use of Board resources." *Id*. at 2.

An analysis of the *Fintiv* factors confirms that discretionary denial should be granted here, as shown in greater detail below. Trial is scheduled about six months ***before*** the projected date for a final written decision, and there is no evidence to suggest that trial will be significantly delayed. Consistent with the district court's track record on stays pending IPRs, a stay is highly unlikely given the advanced stage of the parallel litigation, the discretionary denial with respect to the '686 and '425 patents, and the idiosyncratic rules of the district court. The trial in the district court will resolve the same issues raised in the IPR petition, so the overlap favors denying institution. Moreover, additional considerations here favor denial.

If, as AICP requests, the Director discounts UMC's late-filed stipulation (for the reasons set forth *infra*), then each of the *Fintiv* factors weighs at least slightly in favor of denying institution; none weighs against. And, even if the Director gives UMC's stipulation full weight, it cannot overcome the weight of each of the other *Fintiv* factors that favor discretionary denial. The Director should therefore exercise discretion under 35 U.S.C. § 314(a) and deny institution.

1. *Fintiv* Factor 1 Favors Discretionary Denial

On the facts of this case, *Fintiv* Factor 1—namely, "whether a stay exists or is likely to be granted if a proceeding is instituted," *Fintiv I*, at 6—militates strongly in favor of the Board exercising its discretion to deny institution. Under the district court's jurisprudence, the only stay motion currently pending—*i.e.*, the motion TSMC filed and UMC declined to join, *see* Section II.E, *supra*—is a dead letter in view of the Director's recent discretionary denial with respect to TSMC's challenge of this patent and the '425 patent.

Normally, when a motion for a stay has been filed but not adjudicated (as is the case here), the Board treats this factor as "neutral" because the Board "decline[s] to speculate on how the court may rule on the pending motion to stay." *Solus Advanced Materials Co., Ltd. v. Sk Nexilis Co., Ltd.*, IPR2024-01463, Paper 14, at 13 (PTAB Apr. 25, 2025); *see Fintiv II*, at 12 ("We decline to infer, based on actions taken in different cases with different facts, how the District Court would rule should a stay be requested by the parties in the parallel case here.") (informative); *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC,* IPR2019-01393, Paper 24, at 7 (PTAB June 16, 2020) (similar) (informative).

Here, however, there is concrete evidence that the likelihood of the district court granting TSMC's request for a stay is virtually nil. "It has been [the district court's] consistent and long established practice to deny motions to stay pending

IPR . . . when the PTAB [has] instituted review on less than all asserted claims of all asserted patents." *AGIS Software Development LLC v. Google LLC*, No. 19-cv-361-JRG, 2021 U.S. Dist. LEXIS 24195, at *9 (E.D. Tex. Feb. 9, 2021); *Force Mos Tech. v. Asustek Comput., Inc.,* No. 2:22-cv-00460-JRG, 2024 U.S. Dist. LEXIS 66423, at *10 (E.D. Tex. Apr. 10, 2024) (similar). Thus, under the district court's precedent, TSMC's stay motion must be denied unless ***all*** of its IPR petitions are instituted. However, the Director has already discretionarily denied institution as to TSMC's challenge to the '686 and '425 patents, *Advanced Integrated Circuit Process LLC*, IPR2025-00682, Paper 17 at 2-3, meaning that at least the '425 and '686 patents' asserted claims are not subject to IPR review under TSMC's challenge, and accordingly TSMC's stay motion cannot be granted under existing precedent.

Given UMC's conduct to date—namely, shifting positions after reviewing AICP's briefing—UMC may well respond to this brief by filing a dilatory motion for a stay. Even if it does so, *Fintiv* Factor 1 still weighs strongly in AICP's favor because the prospects for any such motion are dim. First, the Director's reasons for granting discretionary denial with respect to TSMC's petitions on this patent and the '425 patent apply to UMC also; the Director's decision focused on the age of the patents, AICP's settled expectations, and the fact that the June 2026 trial date precedes the projected date for a final written decision. *Advanced Integrated Circuit*

Process LLC, IPR2025-00682, Paper 17 at 2-3. Those same key facts apply even more strongly to UMC because the projected date for a final written decision in UMC's IPRs is even later than the corresponding date for TSMC's IPRs. *See* Section II.C *supra*. If the Director grants discretionary denial of UMC's petitions relating to these same two patents, the same district court precedent that precludes a stay for TSMC would equally preclude one for UMC.

Second, any late-filed stay motion by UMC would have very little merit. By the time the Board begins reaching its institution decisions on UMC's petitions on December 20, 2025, *see* Section II.C.2, *supra*, the Lawsuits will be in a very advanced state. The parties will have substantially completed document production (November 5, 2025), all claim construction briefing will have been completed (November 26, 2025), the *Markman* hearing will have already occurred (December 18, 2025), fact discovery will be nearing completion (January 29, 2026), and trial will be just six months away (June 22, 2026). *See* Section II.B, *supra*. As recognized in *Fintiv I*, significant work "completed by the parties and the court in the parallel proceeding" make a stay generally "less likely." *Fintiv I*, at 10.

Moreover, given UMC's delay in filing its IPRs, it is far from a given that the district court would stay the UMC Lawsuit *even if the Board instituted proceedings on all seven of UMC's IPR petitions*. UMC did not begin filing IPRs until May 23, 2025, almost nine months after the UMC Lawsuit was filed on September 6, 2024.

Compare EX2002 *with* Petition at 1. Moreover, UMC inexplicably delayed filing its petitions for two months after TSMC, even though UMC asserts that its petitions are "substantively identical" to the corresponding TSMC petitions. EX2045 at 1; EX2046 at 1; EX2047 at 1; EX2048 at 1; EX2049 at 1; EX2050 at 1; EX2051 at 1. In *Chrimar Sys. v. Adtran, Inc.*, the district court denied a stay despite instituted IPR proceedings, in part because the petitioner had waited seven months to begin filing IPR petitions. Civ. No. 6:15-CV-618-JRG-JDL, 2016 U.S. Dist. LEXIS 188613, at *17–18 (E.D. Tex. Dec. 8, 2016).

2. *Fintiv* Factor 2 Favors Discretionary Denial

Fintiv Factor 2—namely, the "proximity of the court's trial date to the Board's projected statutory deadline for a final written decision," *Fintiv I*, at 5–6—militates strongly in favor of the Board exercising its discretion to deny institution. In the Director's recent decisions under Section 314(a), this factor looms large. *See, e.g.*, *ARM Ltd. v. Daedalus Prime LLC*, IPR2025-00207, Paper 10, at 2 (U.S. Pat. & Trademark Off. May 16, 2025) (Acting Dir. C.M. Stewart) (discretionarily denying institution because "it is unlikely that a final written decision [] will issue before district court trial"); *Ericsson Inc. v. Procomm Int'l PTE Ltd*, IPR2024-01455, Paper 15, at 2 (U.S. Pat. & Trademark Off. May 16, 2025) (Acting Dir. C.M. Stewart) (discretionarily denying institution when "the related district court trial is set to conclude substantially before a final written decision will issue in this

proceeding").

Trial in the district court is scheduled for June 22, 2026, EX2008 at 2, six months ***before*** the projected statutory deadline for this IPR proceeding in December 2026. The Board has previously held that a trial date that precedes a final written decision deadline by as little as one-to-two months favors discretionary denial. *Fintiv II*, at 12–13 (informative) (second factor favors denial when "the currently scheduled District Court trial is scheduled to begin two months before our deadline to reach a final decision"); *see NXP USA, Inc. v. Impinj, Inc.*, PGR2022-00005, Paper 18, at 8–9 (PTAB May 2, 2022) (two-month difference favors discretionary denial); *E-One, Inc. v. Oshkosh Corp.*, IPR2019-00161, Paper 16, at 6–9 (PTAB May 15, 2019) (one-month period between trial date and deadline for final written decision favored discretionary denial); *eClinicalWorks, LLC v. Decapolis LLC*, IPR2022-00229, Paper 10, at 9 (PTAB Apr. 13, 2022) (similar).

The significant relevance of *Fintiv* Factor 2 for the '686 patent discretionary denial analysis is highlighted by the Director's recent decision denying institution on TSMC's petitions relating to the '686 and '425 patents. The Director noted that "the projected final written decision due date . . . is October 18, 2026" and "[t]he district court's scheduled trial date is June 22, 2026," and found that "it is unlikely that a final written decision in these proceedings will issue before district court trial occurs." *Id*. at 2. Under these circumstances, the Director also found that institution

would have resulted in "significant duplication of effort, additional expense for the parties, and a risk of inconsistent decisions." *Id*. The same is true here. Indeed, *Fintiv* Factor 2 weighs even more strongly in favor is discretionary denial here because UMC's projected date for a final written decision (*i.e.*, December 25, 2025) is even two months later than for TSMC's '686 and '425 patent IPR petitions (*i.e.*, October 18, 2026), *see* Section II.C, *supra*, and thus it is even less likely that a final written decision on UMC's Petition will occur before the June 2026 trial.

To the extent UMC asserts, in its responsive briefing, that Factor 2 is neutral, *e.g.*, because trial dates, in the abstract, often change, UMC would be incorrect. Nothing in the district court record suggests that the trial date set by the district court will change. To the contrary, the scheduling order in the Lawsuits has been amended multiple times, and the trial date has never shifted. *See* Section II.A, *supra*. And even if the trial date shifted for some unanticipated reason, any argument that it would shift to later than December 25, 2026 is pure speculation.

Moreover, the June 2026 trial date is reasonably consistent with statistical evidence from Lex Machina and Docket Navigator showing that cases pending before the presiding judge (Judge Gilstrap) that went to trial in the previous year have a median time-to-trial of 672 days (about 22 months) and 24 months, respectively. EX2027, EX2052. Based on these statistics, the median case before Judge Gilstrap with the same September 6, 2024 filing date as the UMC Lawsuit,

EX2002 at 47, would get to trial between July and September 2026, still many months ahead of the projected final written decision on December 25, 2026.

3. *Fintiv* Factor 3 Favors Discretionary Denial

Fintiv Factor 3 relates to the "investment in the parallel proceeding by the court and the parties," *Fintiv I*, at 5–6, "at the time of the institution decision," *id*. at 9. This factor weighs in favor of the Director exercising discretion to deny institution because of the significant investment the parties have already made, as well as the work that will be done before the institution decision. *See* Section II.B, *supra*. As recognized in *Fintiv I*, significant investment by the parties undermines the likelihood of a stay and increases the risk of duplicative costs. *Fintiv I*, at 10 ("This investment factor is related to the trial date factor, in that more work completed by the parties and the court in the parallel proceeding tends to support the arguments that the parallel proceeding is more advanced, a stay may be less likely, and instituting would lead to duplicative costs.").

The parties have already invested considerable time and resources in the development of their infringement and invalidity contentions. *Sand Revolution II*, IPR2019-01393, Paper 24, at 10 (noting that investment in invalidity contentions is relevant to this factor) (informative). Because UMC has incorporated by reference the entirety of TSMC's invalidity contentions, UMC's invalidity contentions span thousands of pages including 13 total appendices worth of claim charts for the '686

patent alone. *See* EX2016; EX2018 ¶ 8. AICP, meanwhile, has amended its infringement contentions twice since serving the initial contentions in January. EX2010 (ECF 45); EX2011 (ECF 54); EX2012 (ECF 64). The parties' investment in developing their contentions would, on its own, make Factor 3 at least neutral. *See Int'l Business Machines Corp. v. Digital Doors, Inc.*, IPR2023-00968, Paper 7, at 10–11 (PTAB Dec. 1, 2023). But the parties will have invested much more than that by the date of the institution decision.

By the time the Board has resolved the institution decision on all of UMC's petitions by December 25, 2025, *see* Section II.C.2, *supra*, the parties will have substantially completed document production (November 5, 2025), all claim construction briefing will have been completed (November 26, 2025), the *Markman* hearing will have already occurred (December 18, 2025), the fact discovery deadline will be close (January 29, 2026), and trial will be just under six months away (June 22, 2026). *See* Section II.B, *supra*. The Board has found that Factor 3 weighs in favor of discretionary denial when the parallel litigation was at a comparable stage. *See Samsung Elecs. Co., Ltd. v. Truesight Commnc'ns LLC*, IPR2024-01477, Paper 12, at 11–12 (PTAB Apr. 21, 2025) (weighing Factor 3 in favor of denial where the close of fact discovery was two weeks away and the claim construction hearing had just occurred); *see also Fintiv II*, at 14 ("Based on the level of investment and effort already expended on claim construction and

invalidity contentions in the District Court, this factor weighs somewhat in favor of discretionary denial in this case.").

Also relevant to this factor, *see Fintiv I*, at 11–12, UMC unnecessarily delayed filing the Petition until June 6, 2025, *see* Section II.C.2, *supra*, nine months after the UMC Lawsuit was filed on September 6, 2024, *see* Section II.A, *supra*. The fact that UMC could have delayed even longer without being subjected to the one-year statutory bar is no justification. *Chrimar Sys.*, 2016 U.S. Dist. LEXIS 188613, at *17–18 (criticizing the petitioner for failing to initiate IPR filings until seven months after the lawsuit was filed). UMC cannot assert that it needed to learn how AICP had construed the claims in its infringement contentions because UMC "does not believe any claims require construction to resolve the patentability disputes in this proceeding." Petition at 14.

4. *Fintiv* Factor 4 Favors Discretionary Denial

AICP respectfully requests that, due to UMC's and TSMC's prejudicial and seemingly coordinated gamesmanship, the Director significantly discount the weight attributed to UMC's late-filed stipulation. If the Director does so, Factor 4 weighs strongly in favor of the Board exercising its discretion to deny institution because the "overlap between issues raised in the petition and in the parallel proceeding" is substantial. *Fintiv I*, at 5–6. And, even if the Director gives weight to UMC's late-filed stipulation, such a stipulation is "not [] dispositive by itself" and

will be considered "as part of [the Board's] holistic analysis under *Fintiv*." EX2053 (Memorandum, *Guidance on USPTO's recission of "Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation*,") at 3 (Mar. 24, 2025).[4] Here, UMC's late-filed stipulation cannot overcome the weight of all of the other *Fintiv* factors favoring discretionary denial.

First, the Director should accord little weight to UMC's late-filed stipulation given UMC's and TSMC's seemingly coordinated and prejudicial gamesmanship. As AICP previously explained, TSMC's petitions included a circumscribed *Sotera* stipulation that rendered it largely meaningless. EX2041 at 3, 30-31; EX2042 at 3, 30-31. And UMC submitted IPR petitions with no stipulation while contemporaneously adopting TSMC's IPR invalidity theories in its invalidity contentions. EX2041 at 3, 31-32; EX2042 at 3, 31-32. This meant that, even if TSMC's narrow stipulation limited ***its*** ability to present a prior art theory, ***UMC*** would be free to present that same theory in the district court. *Id*.

The Board's guidance requiring that stipulations be filed "as soon as practicable" exists for a reason: namely, "so that the patent owner may address the

[4] *Available at* https://www.uspto.gov/sites/default/files/documents/guidance_memo_on_interim_procedure_recission_20250324.pdf.

impact of the stipulation in its discretionary denial brief." EX2054 at 5. But UMC did not file its stipulation either with the Petition or within a month of filing the Petition; instead, ***after*** AICP filed its first two discretionary denial briefs identifying TSMC's and UMC's gamesmanship on June 18, 2025 and ***just one day before*** TSMC's responsive brief was due, TSMC and UMC both submitted stipulations seemingly designed to blunt the arguments AICP had made in its opening discretionary denial briefs. EX2037; EX2043.

AICP was badly prejudiced by UMC's and TSMC's conduct. As an initial matter, AICP spent significant time, resources and briefing space addressing how TSMC's and UMC's ostensibly coordinated conduct would ensure that institution would result in significant duplication in the PTAB and the Lawsuits. EX2041 at 3, 31-33; EX2042 at 3, 31-33. Moreover, the effects of their gamesmanship were broad and permeated many aspects of AICP's briefs. *See id*. at *passim*. In addition, the timing of the filing of their coordinated stipulations—*i.e.*, the day before TSMC filed its responsive briefs—limited AICP's ability to respond: AICP only had five pages and three business days to draft a reply brief dealing with six issues, only one of which involved the late-filed stipulations. EX2044 at 1, 3-4.

AICP therefore respectfully requests that the Director give little weight to UMC's untimely stipulation. If weight were accorded in these circumstances, it would open the floodgates: IPR petitioners would be incentivized to deliberately

delay filing meaningful stipulations until after a patent owner's discretionary denial brief was submitted. Then, if the patent owner failed to identify the likelihood of duplication and avoidance of estoppel, the petitioner could simply sit back and benefit from the patent owner's oversight. And, if the patent owner did identify the gamesmanship in its discretionary denial brief—as AICP did—the petitioner could submit an untimely stipulation—as TSMC and UMC did—thereby forcing the patent owner to address the effects of the new stipulation in a very short reply brief submitted within a very short timeframe (as happened here).

Second, if as AICP requests the Director gives little weight to UMC's untimely stipulation, *Fintiv* Factor 4 weighs heavily in favor of discretionary denial. For the claims at issue in the Lawsuits—claims 25-28, 31 and 35—the Petition asserts the same grounds that UMC is asserting in the trial court. *See* Section II.D, *supra*. UMC's invalidity contentions use the same two primary references in the Petition—Aoyama and Akasaka—in the same combinations with the same secondary reference Hsu823 as the Petition. *Id.*; *see* EX2017 at 27 (citing, *inter alia*, charts 686A1 and 686A2), 32 (combining the primary references with Hsu823).

Third, even if the Director gives weight to UMC's untimely stipulation, such a stipulation is "not [] dispositive by itself." EX2053 at 3 (Mar. 24, 2025). Here, UMC's late-filed stipulation cannot overcome the weight of each of the other *Fintiv*

factors that weigh in favor of discretionary denial.

5. *Fintiv* Factor 5 Favors Discretionary Denial

Fintiv Factor 5—namely, "whether the petitioner and the defendant in the parallel proceeding are the same party," *Fintiv I*, at 6—clearly weighs in favor of the Board exercising its discretion to deny institution.

The UMC parties are the defendants named in the UMC Lawsuit. EX2002 ¶ 2. Trial in the UMC Lawsuit is scheduled to occur about six months before the projected deadline for a final written decision in this proceeding. EX2008 (ECF 83). Under these circumstances, "factor 5 generally follows factor 2, such that this factor 'favors denial if trial precedes the Board's Final Written Decision.'" *Nikon Corp. v. Optimum Imaging Tech., LLC*, IPR2024-01374, Paper 19, at 23 (PTAB April 29, 2025) (quoting *Huawei Tech. Co. v. WSOU Inv., LLC*, IPR2021-00225, Paper 11, at 14 (PTAB June 14, 2021) (internal quotation marks omitted)); *see Fintiv II*, at 15 ("Because the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial."); *Samsung Elecs. Co. v. Clear Imaging Research, LLC*, IPR2020-01401, Paper 12, at 21–22 (PTAB Feb. 17, 2021) (same). [5]

[5] Moreover, the existence of other parallel litigation to which UMC is not a party—the TSMC Lawsuit, specifically—does not diminish the weight that should be given

UMC might assert that this factor is only "neutral" as its co-defendant TSMC has done in other IPRs. *See, e.g., Taiwan Semiconductor Mfg. Co. Ltd. v. Advanced Integrated Circuit Process LLC*, IPR2025-00683, Paper 1 (Petition), at 112 (PTAB March 26, 2025). The Board should reject this unjustified assertion, as it has done in similar cases. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12, at 19 (PTAB Dec. 1, 2020) (precedential); *Samsung Elecs. Am., Inc. v. Collision Commnc'ns, Inc.*, IPR2025-00011, Paper 12, at 23 (PTAB Apr. 28, 2025) ("There is no dispute that the parties are the same in both proceedings. Petitioner nonetheless argues that Factor 5 is neutral. . . . We agree with Patent Owner that Factor 5 favors denial."); *Solus*, IPR2024-01463, Paper 14, at 17 ("To the extent that trial in the district court may precede the deadline for a final written decision in this proceeding, this factor favors exercising our discretion to deny institution."); *Liberty Energy, Inc. v. U.S. Well Servs., LLC*, IPR2025-00031, Paper 9, at 16 (PTAB Apr. 29, 2025); *Nokia of Am. Corp. v. Pegasus Wireless Innovation LLC*, IPR2025-00037, Paper 14, at 14 (PTAB Apr. 25, 2025).

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the UMC Lawsuit under Factor 5. *See LG Energy Solution, Ltd. v. Molecular Rebar Design, LLC*, IPR2024-01005, Paper 9, at 34 (PTAB Dec. 16, 2024) (finding Factor 5 weighs in favor of discretionary denial where lawsuit against the petitioner was consolidated with another lawsuit against a different party).

6. *Fintiv* Factor 6 Favors Discretionary Denial

Fintiv Factor 6—namely, "other circumstances that impact the Board's exercise of discretion, including the merits," *Fintiv I*, at 6—weighs strongly in favor of the Board exercising its discretion to deny institution. First, AICP has strong settled expectations favoring discretionary denial because the '686 patent issued thirteen years ago. Second, not only does the Petition fail to make a compelling challenge on the merits, it contradicts UMC's invalidity contentions in the district court, exacerbating the risk of conflicting decisions. Third, accurately determining the invention date of the '686 patent—as is necessary to determine whether the Petition's primary references, Aoyama and Akasaka are prior art—requires third-party discovery from foreign custodians in Japan, which the district court is best suited to facilitate. Fourth, the complexity of the dispute favors the district court as a single forum that can resolve all issues among all parties in one consolidated proceeding. All of these circumstances contribute to this factor weighing in favor of discretionary denial.

a) Settled expectations favor denial

Settled expectations favor denial of institution here because the '686 patent has been in force since June 12, 2012, over thirteen years. EX1001 at (45). In recently granting discretionary denial with respect to TSMC's petitions directed to the '686 and '425 patents, the Director noted that those "patents have been in force

for thirteen and eleven years, respectively, creating strong settled expectations for [AICP]." *Advanced Integrated Circuit Process LLC*, IPR2025-00682, Paper 17 at 2-3 (rejecting TSMC's argument that "does not have settled expectations because [AICP] did not previously assert the challenged patent against [TSMC]"). Indeed, time periods as short as eight years have been found to create settled expectations, *Dabico Airport Solutions Inc. v. AXA Power ApS*, IPR2025-00408, Paper 21, at 2–3 (U.S. Pat. & Trademark Off. June 18, 2025) (Acting Dir. C.M. Stewart), and settled expectations have been found to outweigh multiple other factors, *iRhythm Techs., Inc. v. Welch Allyn, Inc.*, IPR2025-00363, -374, -376, -377, -378, Paper 10, at 2–3 (U.S. Pat. & Trademark Off. June 6, 2025) (Acting Dir. C.M. Stewart).

Moreover, the advanced age of the '686 patent weighs against institution. The Director's most recent decisions recognize that discretionary denial is even more appropriate for older patents because "[e]arly challenges to patents favor robust, predictable patent rights and weigh against discretionary denial." *Tesla, Inc. v. Charge Fusion Techs., LLC*, IPR2025-00152, Paper 11, at 3 (U.S. Pat. & Trademark Off. June 12, 2025) (Acting Dir. C.M. Stewart); *Merck Sharp & Dohme LLC v. Halozyme, Inc.*, PGR2025-00006, Paper 29, at 2 (U.S. Pat. & Trademark Off. June 12, 2025) (Acting Dir. C.M. Stewart). The '686 patent claims February 13, 2009 as its earliest United States filing date and is scheduled to expire in 2029, less than four years from now. Because the '686 patent is already nearing

expiration, this also tends to weigh in favor of discretionary denial.

b) The Petition is weak on the merits and is inconsistent with UMC's positions in the parallel proceeding

Under *Fintiv*, the "strengths or weaknesses regarding the merits" may be "consider[ed] as part of [the Board's] balanced assessment." *Fintiv I*, at 15–16. This means that the relative strength or weakness of the Petition's showing must be balanced against the weight given to the other *Fintiv* factors. *See id.* at 15 n.29 (noting prior institution "when 'the strength of the merits ***outweigh relatively weaker*** countervailing considerations of efficiency'") (emphasis added) (quoting *Illumina, Inc. v. Natera, Inc.*, IPR2019-01201, Paper 19, at 8 (PTAB Dec. 18, 2019)). Importantly, "if the merits of the grounds raised in the petition are a closer call, then that fact has ***favored denying institution*** when other factors favoring denial are present." *Id.* at 15 (emphasis added). Stated slightly differently, the merits are not "compelling or particularly strong" if Patent Owner raises "issues and concerns" that "warrant further development if trial were to be instituted." *Arashi Vision (U.S.) LLC d/b/a Insta360 v. GoPro, Inc.*, IPR2025-00017, Paper 11, at 15–16 (PTAB April 28, 2025).

Here, the merits are weak. The '686 patent teaches very specific integrated-circuit designs that improve NMOS and PMOS transistor performance in CMOS semiconductor devices. The Petition advances no anticipation theory as to the

challenged claims, in part because none of the Petition's alleged prior art references discloses the claimed structure wherein the "silicon nitride film causes first stress in a gate length direction of a channel region in the first active region," a limitation found directly or by dependency in claims 25–35. The Petition therefore seeks to combine its primary references with Hsu823 to attempt to fill that gap. But this argument fails for several reasons. First, the Petition admits that both of its primary references are not prior art under Section 102(b). Petition at 2. All grounds fail if the '686 patent's invention date precedes their filing dates. Second, the Petition itself admits key facts showing why a person of skill in the art would not have applied a tensile silicon nitride film in the context of the '686 patent. Moreover, the Petition ignores disclosures in its references, including Hsu823, that teach away from employing a tensile film in the '686 patent's claimed transistors. UMC contends that its Petition is "substantively identical" to the one filed by TSMC. EX2049 at 3. AICP has already filed a Preliminary Response to TSMC's Petition, explaining some of the flaws in those Grounds. EX2057 at 12-24.

Although these weaknesses in the Petition preclude a finding of compelling merits, there is more. The Petition's theories are further undermined by Petitioner's own invalidity contentions. UMC asserts in the district court, by incorporating by reference TSMC's invalidity contentions, EX2017 at 5, that "[t]he asserted claims are invalid for failure to comply with the [] enablement requirement[] because the

Patents-in-Suit . . . do not provide a sufficiently enabling disclosure." EX2016 at 274. As one notable example, the '686 patent allegedly does not enable the limitation in claim 25 that "the silicon nitride film causes first stress in a gate length direction of a channel region in the first active region." *Id.* at 279.

This assertion undermines the Petition's theories. UMC must show here that the challenged claims ***are enabled*** by the prior art. *Raytheon Techs. Corp. v. GE*, 993 F.3d 1374, 1380 (Fed. Cir. 2021) ("To render a claim obvious, the prior art, taken as a whole, must enable a skilled artisan to make and use the claimed invention."). To that end, UMC argues that "[i]t would have been well within a POSITA's ability to create such a tensile silicon nitride CESL film simply by adjusting deposition conditions." Petition at 32. But if those techniques were known in the art, as UMC asserts here, they need not have been disclosed by the '686 patent to be enabled. *See McRO, Inc. v. Bandai Namco Games Am., Inc.*, 959 F.3d 1091, 1102 (Fed. Cir. 2020) ("[A] patent need not teach, and preferably omits, what is well known in the art."). Thus, UMC's assertion that the claimed silicon nitride film that "causes first stress in a gate length direction of a channel region in the first active region" is not enabled (for purposes of Petitioner's Section 112 defense in the district court) undermines any argument that the prior art enables that limitation (for purposes of the Petition's obviousness theories).

UMC makes no attempt to explain how, if its lack of enablement challenge

succeeds in the district court, the Petition's obviousness theories could have merit. By advancing positions in this proceeding that conflict with its positions in the district court, UMC increases the likelihood of conflicting outcomes between the two proceedings. One purpose of discretionary denial is to avoid such conflicts between the USPTO and federal courts. *See, e.g., Fintiv I*, at 12; *see also Cisco Sys., Inc. v. Ramot at Tel Aviv University Ltd.*, IPR2020-00123, Paper 14, at 10 (PTAB May 15, 2020) (recognizing that "the possibility of conflicting decisions" tends to favor discretionary denial). UMC's inconsistent positions thus not only undermine a finding of compelling merits but also increase the risk of conflicting decisions, both of which weigh in favor of exercising discretion to deny the Petition, independent of other circumstances considered under Factor 6.

c) Foreign third-party discovery needs favor denial

The relevance of foreign third-party discovery in Japan also renders the district court a far more efficient forum for resolving the pending invalidity challenges. Indeed, it is uncertain whether institution would afford AICP its Constitutional due process protections.

The Petition concedes that its two primary references, Aoyama and Akasaka, are not Section 102(b) prior art but rather only "[p]rior art under pre-AIA 35 U.S.C. §§102(a) and (e)." Petition at 2. This type of art is only ***presumptively*** prior art because it can potentially be "antedated" using evidence to "swear behind" the date

of the reference. *In re Zletz*, 893 F.2d 319, 323 (Fed. Cir. 1989) (recognizing that a reference "under 35 U.S.C. § 102(e) [pre-AIA] . . . can be antedated"); *Mahurkar v. C.R. Bard, Inc.*, 79 F.3d 1572, 1576 (Fed. Cir. 1996) (similar for a Section 102(a) (pre-AIA) reference). Thus, if the Board institutes proceedings, AICP should be afforded an opportunity to investigate whether the '686 patent's invention date precedes Aoyama's and Akasaka's filing dates, thereby eliminating all Grounds as a basis for invalidity.

As reflected on the face of the '686 patent, the named inventors and former assignee reside in Japan. EX1001 at (73), (75). Although the Board can oversee the issuance of a subpoena by a district court, *see* 35 U.S.C. § 24, a subpoena on foreign entity "must be served by an internationally agreed means of service . . . such as those authorized by the Hague Convention." *Hake v. Citibank, N.A.*, 2020 U.S. Dist. LEXIS 52782, at *24 (S.D.N.Y. Mar. 26, 2020). However, "Japan is not a signatory to the Hague Convention." *Image Processing Techs., LLC v. Canon, Inc.*, 2011 U.S. Dist. LEXIS 167076, at *4–5 (E.D.N.Y. Sep. 13, 2011). Accordingly, a subpoena addressed to a Japanese company (or person) will be quashed as being "in direct contravention of the evidentiary treaty between the United States and Japan." *Fujikura Ltd. v. Finisar Corp.*, 2015 U.S. Dist. LEXIS 135871, at *21 (N.D. Cal. May 14, 2015). Thus, the Board's subpoena power is inadequate to secure this important discovery.

Rather than using a subpoena, a party seeking discovery from a person or entity in Japan "is obligated to proceed through consular officials to obtain documentary discovery" or through "a letter rogatory pursuant to the court's inherent authority to do so." *Id*. AICP is unaware of any statutory basis for the Board to oversee discovery through consular officials or letters rogatory. Moreover, even if the Board has power to oversee such discovery, the district court is better suited to do so because of its relative expertise in third-party discovery, including from foreign entities. *Cf. TCO AS v. NCS Multistage Inc.*, PGR2020-00077, Paper 16, at 20 (PTAB Feb. 18, 2021) ("Even assuming that extraterritorial discovery is unnecessary, it appears that third-party discovery is required. . . . Institution in these circumstances raises concerns of inconsistent outcomes, which does not favor institution.").

Notably, TSMC is already seeking such information through a letter rogatory in the district court proceeding. *See* EX2031 (ECF 119); EX2032 (ECF 116-1) at 7, 17, 20. On June 20, 2025, TSMC filed a Sealed Motion for Issuance of Letter Rogatory for Nuvoton Technology Corporation Japan ("NTCJ") in the district court.[6] EX2004 at 15; *see* EX2031 (ECF 119) (redacted version of Sealed Motion).

[6] NTCJ is a subsidiary of a Taiwanese company, Nuvoton Technology Corporation; TSMC is also seeking evidence from the Taiwanese parent company through a

NTCJ used to be Panasonic Semiconductor Solutions Co., Ltd. ("PSSC"), an assignee of the '686 patent and an affiliate of Panasonic Corporation. *See* EX2033 (ECF 114-2); EX2035 (assigning patents from Panasonic to PSSC); EX2036 (reflecting name change from PSSC to NTCJ in USPTO patent assignment database). The '686 patent is listed as one of the "Asserted Patent(s)," EX2032 (ECF 116-1) at 7, and TSMC is seeking documents and deposition testimony related to "conception and/or reduction to practice" of the Asserted Patents. *Id.* at 17, 20. This demonstrates that even TSMC believes such conception and reduction to practice evidence is likely to be relevant, and that the district court is best equipped to facilitate discovery into those topics. The district court recently granted the motions, recognizing the relevance of the evidence sought. EX2038; EX2039.

d) The complexity of the proceedings favor denial in deference to the district court

Efficiency favors the district court as the forum that can address ***all*** validity issues at the ***same time*** in a ***single*** proceeding that binds ***all*** relevant parties. Under similar circumstances, the Board has found that the sixth *Fintiv* factor weighed in favor of denial because "resolution of all of the disputes based on all of the issues between the parties regarding the challenged patent before the district court . . . would be more efficient and, therefore, weighs in favor of exercising discretion to

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letters rogatory. *See* EX2034 (ECF 118); EX2033 (ECF 114-2).

deny institution of *inter partes* review." *Nokia*, IPR2025-00037, Paper 14, at 15. In *Nokia*, there were 11 patents, each subject to a single IPR petition filed by multiple petitioners involved in three parallel district court cases. *See id.* at 2–3. The IPRs were filed over three or four months, resulting in final written decision deadlines spread out over a period of about five months. *Id.* at 14. In this case, by comparison, there are seven patents subject to fourteen petitions filed over a similarly long period of time. *See* Section II.C, *supra*.

The district court has already consolidated the Lawsuits for all pretrial issues, and the consolidated action is progressing on pace toward a June 2026 trial date. This will permit the district court to adjudicate ***all*** invalidity disputes—*e.g.*, obviousness, anticipation enablement, written description, and indefiniteness—asserted by either UMC or TSMC across ***all seven*** patents. And importantly, unlike the Board's decision on this Petition, that resolution will bind all parties, including TSMC. Among the invalidity theories are UMC's and TSMC's extensive invalidity contentions relying on prior art theories that fully incorporate the prior art references asserted against the same claims in the parties' respective IPR petitions. *See* Section II.D, *supra*.

The district court has special tools available for managing multi-patent lawsuits (like the Lawsuits here) in an orderly manner that simplifies and streamlines the case and drives the resolution of the dispute as a whole. These tools

include, for example, deadlines for narrowing the issues by requiring the litigants to make a "final election of Asserted Claims" and matching disclosure of "final invalidity theories" in advance of trial. EX2008 at 2, n.2.

The Board, by contrast, lacks the flexibility desirable for complex multi-patent, multi-party disputes like this one. For example, the Board (if it institutes) must by statute adjudicate every ground with respect to every claim against which it is asserted. *See SAS Inst., Inc. v. Iancu*, 584 U.S. 357, 371 (2018); *AC Techs., S.A. v. Amazon.com, Inc.*, 912 F.3d 1358, 1364 (Fed. Cir. 2019). In short, the complexity of the dispute between the various parties would benefit from the flexible case management powers of an Article III court. This fact also favors the exercise of discretion to deny institution.

UMC may argue—erroneously—that *Tesla, Inc. v. Intellectual Ventures II LLC*, IPR2025-00217, Paper 9 (U.S. Pat. & Trademark Off. June 13, 2025) (Acting Dir. C.M. Stewart) favors institution. That case involved "eleven patents spanning nine different families that involve a diverse range of subject matter." *Id*. at 3. There, the Patent Office concluded that "the Board is better suited to review a large number of patents involving diverse subject matter." *Id*. This case is readily distinguishable from *Tesla*. Here, each of the relevant patents relates to a single category of subject matter—namely, MOSFET transistor design—rather than diverse subject matter, and the Lawsuits involve just seven patents, four of which

are in the same patent family. Moreover, the background sections of six of UMC's seven petitions include similar subject matter relating to MOSFET design.

V. CONCLUSION

For the foregoing reasons, AICP respectfully requests that the Board exercise its discretion to deny institution of the Petition pursuant to Section 314(a).

Dated: August 21, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that pursuant to 37 C.F.R. § 42.6(e), a copy of the foregoing **Patent Owner's Discretionary Denial Brief Pursuant to the Board's March 26, 2025 Interim Processes for PTAB Workload Management, and accompanying Exhibits 2001–2057,** were served to the following counsel of record for Petitioner addressed as follows:

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Dated: August 21, 2025

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned hereby certifies that this brief complies with the type-volume limitation of 37 C.F.R. § 42.24 because this brief contains 10,449 words.

Dated: August 21, 2025

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