

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SK HYNIX INC.,
Petitioner,

v.

ADVANCED MEMORY TECHNOLOGIES, LLC,
Patent Owner.

Case IPR2025-01452
Patent 7,777,557

**PATENT OWNER'S
DISCRETIONARY DENIAL BRIEFING PURSUANT
TO THE DIRECTOR'S MARCH 26, 2025 MEMORANDUM**

Mail Stop "PATENT BOARD"
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

EXHIBIT LIST

Exhibit	Description
2001	Complaint for Patent Infringement, <i>Advanced Memory Techs., LLC v. SK Hynix Inc.</i> , No. 2-24-cv-01078, Dkt. No. 1, filed Dec. 30, 2024 (E.D. Tex.)
2002	Amended Complaint for Patent Infringement, <i>Advanced Memory Techs., LLC v. SK Hynix Inc.</i> , No. 2-24-cv-01078, Dkt. No. 25, filed April 2, 2025 (E.D. Tex.)
2003	Second Amended Docket Control Order, <i>Advanced Memory Techs., LLC v. SK Hynix Inc.</i> , No. 2-24-cv-01078, Dkt. No. 27, filed April 11, 2025 (E.D. Tex.)
2004	RESERVED
2005	Order Denying Motion for Stay Pending <i>Inter Partes</i> Review, <i>Advanced Memory Techs., LLC v. SK Hynix Inc.</i> , No. 2-24-cv-01078, Dkt. No. 79, filed Sept. 3, 2025 (E.D. Tex.)
2006	United States District Courts — National Judicial Caseload Profile (including data through June 30, 2025), https://www.uscourts.gov/sites/default/files/document/fcms_na_distprofile0630.2025.pdf (accessed October 10, 2025).
2007	Defendant SH Hynix’s Preliminary Invalidity Contentions Cover Pleading, <i>Advanced Memory Techs., LLC v. SK Hynix Inc.</i> , No. 2-24-cv-01078, served June 25, 2025 (E.D. Tex.)
2008	Omnibus Obviousness Chart A-OB for U.S. Patent No. 7,777,557, <i>Advanced Memory Techs., LLC v. SK Hynix Inc.</i> , No. 2-24-cv-01078, served June 25, 2025 (E.D. Tex.)
2009	February 3, 2022 Non-Final Office Action Concerning Application No. 14/698,542
2010	U.S. Patent No. 11,437,907 to SK Hynix Inc.
2011	Docket Navigator Time To Trial Statistics for Judge Rodney Gilstrap for October 20, 2024 through October 20, 2025
2012	Lex Machina Time to Trial Statistics for Judge Rodney Gilstrap for October 20, 2024 through October 20, 2025

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Factual Background.....	2
	A. AMT’s Lawsuit is Scheduled for Trial on October 5, 2026	2
	B. Hynix Filed IPRs Challenging the AMT Patents Asserted Against It	2
	C. All Challenged Patents Have Been in Effect For At Least 11 Years.....	3
III.	Argument	4
	A. The <i>Fintiv</i> Factors Support Discretionary Denial	4
	1. Factor 1: whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.....	6
	2. Factor 2: proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision	7
	3. Factor 3: investment in the parallel proceeding by the court and the parties	10
	4. Factor 4: overlap between issues raised in the petition and in the parallel proceeding	11
	5. Factor 5: whether the petitioner and the defendant in the parallel proceeding are the same party.....	12
	6. Factor 6: other circumstances that impact the Board’s exercise of discretion, including the merits.	12
	B. Additional Considerations Also Support Discretionary Denial	18
IV.	Conclusion	19

TABLE OF AUTHORITIES

Cases

<i>Advanced Memory Technologies, LLC v. SK Hynix Inc.</i> , Case No. 2:24-cv-01078 (E.D. Tex.).....	4
<i>AGIS Software Development LLC v. Google LLC</i> , No. 19-cv-361-JRG, 2021 U.S. Dist. LEXIS 24195 (E.D. Tex. Feb. 9, 2021)...	7
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 11 (P.T.A.B. March 20, 2020)	10
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 15 (P.T.A.B. May 13, 2020)	5, 18
<i>Coretronic Corp. v. Maxell, Ltd.</i> , IPR2025-00474, Paper 11 (PTAB Jul. 10, 2025)	7
<i>Cuozzo Speed Techs., LLC v. Lee</i> , 136 S. Ct. 2131 (2016).....	4
<i>Force Mos Tech., Co. Ltd. v. Asustek Computer, Inc.</i> , No. 2:22-cv-460-JRG, 2024 U.S. Dist. LEXIS 66423 (E.D. Tex. Apr. 11, 2024)	7
<i>Gen. Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha</i> , IPR2016-01357, Paper 19 (P.T.A.B. Sept. 6, 2017)	5
<i>NHK Spring Co. Ltd. v. Intri-Plex Techs. Inc.</i> , IPR2018-00752, Paper 8 (P.T.A.B. Sept. 12, 2018)	5
<i>Sotera Wireless, Inc. v. Masimo Corp.</i> , IPR2020-01019, Paper 12 (P.T.A.B. Dec. 1, 2020)	12

Statutes

35 U.S.C. § 21(b)	8
35 U.S.C. § 314(a)	4, 6
35 U.S.C. § 314(b)	4, 8
35 U.S.C. § 316(a)(11).....	4, 8

I. Introduction

Patent Owner Advanced Memory Technologies, LLC (“AMT” or “PO”) respectfully requests that the Director discretionarily deny SK Hynix Inc.’s (“Petitioner” or “Hynix”) Petition to institute *inter partes* review of U.S. Patent No. 7,777,557 (the “’557 Patent”). In support of discretionary denial, AMT submits this briefing—limited in scope to discretionary denial issues—pursuant to the Director’s March 26, 2025 Memorandum.

First, the parallel District Court lawsuit will address the same invalidity grounds that are at issue in this proceeding, and the resolution of the lawsuit will likely conclude well before a final written decision in this proceeding. AMT sued Hynix for infringement of the ’557 Patent in the Eastern District of Texas on December 30, 2024, and trial is scheduled to start on October 5, 2026. Conversely, the projected final written decision deadline in this IPR is not until March 8, 2027.

Furthermore, PO’s strong settled expectations in the ’557 Patent (as well as the other patents challenged by Petitioner) also firmly supports discretionary denial. The ’557 Patent has been in effect for more than 15 years, and Petitioner has been on notice of the ’557 Patent since at least February 3, 2022 when the patent publication (2008/0169864), which later issued as the ’557 Patent, was cited as anticipatory art during prosecution of SK Hynix’s patent application 17/461,597. EX2009 at 12; EX2010 at (73), (56). Despite this, Petitioner waited nearly 8 months

after the start of the parallel District Court proceeding to file its Petition—nearly 5 months after it received PO’s infringement contentions and 2 months after serving its invalidity contentions asserting the same invalidity grounds. As discussed in more detail below, both the *Fintiv* factors and additional considerations bearing on the Director’s discretion strongly support denying the Petition.

II. Factual Background

A. AMT’s Lawsuit is Scheduled for Trial on October 5, 2026

AMT sued Hynix for infringement of the ’557 Patent—along with U.S. Patent Nos. 7,920,018; 7,969,231; and 8,593,888—in the Eastern District of Texas on December 30, 2024. EX2001 at 9, 29. On April 2, 2025, AMT amended its complaint to assert infringement of U.S. Patent No. 8,400,835 as well. EX2002 at 9, 40. Trial in the District Court for each of the asserted patents is scheduled to start on October 5, 2026. EX2003 at 1. Conversely, the projected final written decision deadline in this IPR is not until March 8, 2027 (5 months after the scheduled district court trial date).

B. Hynix Filed IPRs Challenging the AMT Patents Asserted Against It

Hynix has filed IPRs challenging each of the patents AMT has asserted against it in the District Court, as summarized in the chart below:

Patent	IPR	Filing Date	POPR Deadline	Institution Decision Deadline
7,777,557	IPR2025-01452	2025-08-29	2025-12-08	2026-03-08
7,920,018	IPR2025-01450	2025-08-29	2025-12-08	2026-03-08

Patent	IPR	Filing Date	POPR Deadline	Institution Decision Deadline
7,969,231	IPR2025-01451	2025-08-27	2025-12-01	2026-03-01
8,400,835	IPR2025-01453	2025-08-25	2025-12-01	2026-03-01
8,593,888	IPR2025-01449	2025-08-22	2025-12-01	2026-03-01

As shown in the table above, institution decisions for all challenged patents are expected around the beginning of March 2026, meaning that a final written decision in each of the proceedings challenging AMT’s patents would likely not issue until around March of 2027—approximately 5 months after the scheduled trial date. EX2003 at 1.

C. All Challenged Patents Have Been in Effect For At Least 11 Years

Each of the AMT Patents challenged by Hynix has been in effect for at least 11 years, as shown in the table below:

Issue Date	Patent No.	IPR	Projected Expiration
Aug. 17, 2010	7,777,557	IPR2025-01452	2028-06-12
Apr. 5, 2011	7,920,018	IPR2025-01450	2028-01-17
Jun. 28, 2011	7,969,231	IPR2025-01451	2029-07-24
Mar. 19, 2013	8,400,835	IPR2025-01453	2030-01-03
Nov. 26, 2013	8,593,888	IPR2025-01449	2030-12-21

Furthermore, two of the challenged patents, including the at-issue ’557 Patent, are projected to expire within the next three years, with the remaining patents projected to expire by the end of 2030.

III. Argument

A. The *Fintiv* Factors Support Discretionary Denial

The USPTO should deny the Petition under *Fintiv* because the same issues will be resolved in the parallel District Court proceeding well before the USPTO will issue a final written decision in this proceeding. PO sued Petitioner for infringement of the '557 Patent on December 30, 2024 in *Advanced Memory Technologies, LLC v. SK Hynix Inc.*, Case No. 2:24-cv-01078 (E.D. Tex.) (the “District Court Proceeding”). EX2001 (Complaint). Trial in the District Court Proceeding is scheduled to start on October 5, 2026. EX2003 (Second. Am. Docket Control Order) at 1. Yet the projected Final Written Decision deadline in this IPR is not until March 8, 2027, 5 months later. *See* Paper 7 (Notice of Filing Date); 35 U.S.C. §§ 314(b), 316(a)(11).

The Director has discretion to deny institution under 35 U.S.C. § 314(a). *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016). The USPTO should exercise such discretion here and deny the Petition because the same invalidity arguments will be addressed, and resolved, in the co-pending District Court Proceedings 5 months before the Board would likely issue a final written decision in this proceeding.

The USPTO considers the presence and status of parallel district court litigation in determining whether to deny institution. *See NHK Spring Co. Ltd. v.*

Intri-Plex Techs. Inc., IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential); *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 17 (PTAB May 13, 2020) (informative) [hereinafter “*Fintiv*”]; *see also Gen. Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16–17 (PTAB Sept. 6, 2017) (“[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.” *Fintiv*, Paper 15 at 7–8.

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.

Id. “[T]he Board examines these factors, which relate to whether efficiency, fairness, and the merits support the exercise of authority to deny institution. 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.” *Id.* (internal citations omitted). As detailed below, these factors strongly favor discretionary denial under § 314(a).

1. Factor 1: whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted

Factor 1 favors discretionary denial because the District Court Proceeding denied Petitioner’s motion for stay and is unlikely to grant any subsequent motion. On September 2, 2025, Hynix filed a motion to stay the District Court Proceeding in light of its pending IPR Petitions. The very next day, and without waiting for the motion to be fully briefed, the District Court denied that motion, noting that it was the “universal practice” of the district not to consider such motions when IPR proceedings had not been instituted by the USPTO.¹ EX2005.

Furthermore, as noted above, in the District Court Proceeding PO has asserted infringement of four other patents in addition to the ’557 Patent. EX2002 (Am.

¹ To the extent Petitioner asserts that the Order supports a finding that the District Court will reconsider the request if institution occurs, Petitioner is incorrect. The Order merely notes that the request was not considered because it was untimely—it did not address the question of whether Petitioner’s request (or any subsequent request) would have any chance of being granted on the merits.

Complaint) ¶38. In the federal district where the case is pending, “[i]t 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. 2:19-cv-361-JRG, 2021 U.S. Dist. LEXIS 24195, at *9 (E.D. Tex. Feb. 9, 2021) (emphasis added); see *Force Mos Tech., Co. Ltd. v. Asustek Computer, Inc.*, No. 2:22-cv-460-JRG, 2024 U.S. Dist. LEXIS 66423, at *10 (E.D. Tex. Apr. 11, 2024) (similar). Thus, any speculative future motion for a stay would almost certainly be denied unless each of the Petitions in IPR2025-01449 to -01453 are not only instituted but instituted as to all of the asserted claims. Accordingly, “there is insufficient evidence that the district court is likely to stay its proceeding even if the Board were to institute trial.” *Coretronic Corp. v. Maxell, Ltd.*, IPR2025-00474, Paper 11 at 2 (PTAB Jul. 10, 2025) (Acting Dir. Stewart, C.M.). Thus, this factor favors discretionary denial.

2. Factor 2: proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision

Factor 2 strongly favors discretionary denial given the much earlier district court trial date. A brief overview of certain relevant dates is shown in the table

below.² Dates from the District Court Proceeding are highlighted in yellow, and dates for this IPR are highlighted in green.

Date	Event
2024-12-30	District Court Proceeding Complaint Filed
2025-08-29	IPR Petition Filed
2025-09-08	Notice of Filing Date Accorded
2025-11-10 ³	PO Discretionary Denial Brief Deadline
2025-12-08	PO Preliminary Response Deadline
2026-02-13	District Court Proceeding Claim Construction Discovery Deadline
2026-02-27	District Court Proceeding Opening Claim Construction Brief Deadline
2026-03-08	Projected Institution Decision Deadline
2026-04-10	District Court Proceeding Markman Hearing
2026-10-05	District Court Proceeding Trial Begins
2027-03-08	Projected Final Written Decision Deadline

As shown above, trial in the District Court Proceeding is scheduled for October 5, 2026. EX2003 at 1. If the Board reaches its institution decision within three months of the preliminary response deadline, 35 U.S.C. § 314(b), and issues a final written decision within one year of institution, 35 U.S.C. § 316(a)(11), a final written decision would likely not issue in this proceeding until around March 8,

² The other IPRs filed by Petitioner are on similar schedules, all falling within 1–2 weeks of the dates listed in the table (as addressed in the respective discretionary denial briefs).

³ November 8, 2025 is a Saturday and 35 U.S.C. § 21(b) extends the deadline to the next business day.

2027— 5 months after the projected trial date. Thus, given the much earlier trial date in the District Court Proceeding, there is no efficiency to be gained by trying a duplicative IPR proceeding in parallel. This factor weighs in favor of denial.

Time to trial statistics further support the conclusion that trial will occur in the District Court Proceeding before any final written decision would likely issue in this proceeding. The District Court Proceeding is pending before Judge Rodney Gilstrap in the Eastern District of Texas. For patent cases before Judge Gilstrap that went to trial between October 20, 2024 to October 20, 2025, Docket Navigator calculates the median time to trial to be 24 months, and Lex Machina calculates the median time to trial to be 672 days (approximately 22 months). EX2011; EX2012. The District Court Proceeding was filed on December 30, 2024, EX2001 at 29, therefore those statistics would suggest a trial date in the range of October 2026 to December 2026. Thus, those statistics further confirm that trial is likely to occur well before the projected March 8, 2027 final written decision deadline.

Even the less specific median time to trial statistics for the Eastern District of Texas as a whole further confirm that trial in the District Court Proceeding will likely occur well before a final written decision could issue in this proceeding. The most recent statistics for the district show a median time from filing to trial of 25.1 months. EX2006 at 35. The District Court Proceeding was filed on December 30, 2024, EX2001 at 29, which would suggest a trial date around the beginning of February

2027. Thus, even the median time to trial data from uscourts.gov supports a conclusion that the trial will occur before a final written decision would issue in this proceeding.

In light of the much earlier scheduled trial date, this factor strongly supports discretionary denial.

3. Factor 3: investment in the parallel proceeding by the court and the parties

Factor 3 favors discretionary denial given the investment in the parallel proceeding that has occurred already and the further investment scheduled to occur prior to the projected institution decision deadline. The USPTO “consider[s] the amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision.” *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 9 (PTAB March 20, 2020) (precedential). In this case, the District Court and the parties have already invested significant resources in the parallel proceeding. For example, the parties have already served infringement and invalidity contentions in the litigation. EX2003 at 5–6. By the projected institution decision deadline of March 1, 2026, the parties will have identified their proposed terms for claim construction, completed claim construction discovery, and submitted their opening claim construction briefs. *Id.* at 4–5. Given the significant investment in the parallel District Court Proceeding, this factor favors denial.

4. Factor 4: overlap between issues raised in the petition and in the parallel proceeding

Factor 4 favors discretionary denial because there is substantial overlap between the Petition grounds and the invalidity grounds asserted in the District Court Proceeding.

Petitioner asserts the following four grounds in this IPR:

Ground	Reference(s)	Claims
1	U.S. Pat. No. 6,107,864 (“Fukushima”)	1, 3, 5, 10-12, and 14
2	U.S. Pat. No. 6,501,325 (“Meng”)	1-3, 9, 10, and 14
3	Meng + U.S. Pat. No. 6,914,791 (“Park”)	1-12 and 14

Petitioner has asserted the same grounds in its invalidity contentions in the District Court Proceeding. EX2007 (Invalidity Contention Cover Pleading) at 3, 10; EX2008 (’557 Patent “Omnibus Obviousness Chart”). The Petition only challenges a couple of additional dependent claims and uses the same art asserted in the District Court to do so.

Despite this overlap, the Petition itself offered no stipulation (*Sotera* or otherwise) to attempt to mitigate the duplication of effort that would occur if this IPR was instituted. Rather than offer such a stipulation “as soon as practicable,”⁴

⁴ See <https://www.uspto.gov/patents/ptab/interim-director-discretionary-process> at I.D (accessed on October 15, 2025) [hereinafter “Interim Director Discretionary Process”]

Petitioner instead delayed doing so until less than a month before PO's discretionary denial brief was due. *See* Paper 8. Furthermore, the belated limited stipulation Petitioner did offer reserved the right to assert combinations including system prior art in the District Court Proceeding, *id.* at 2, meaning Petitioner intends to try validity based on purported prior art in both the District Court Proceeding and this IPR. Therefore, Petitioner's stipulation is "not [] particularly meaningful because the efficiency gained in an AIA proceeding will be limited,"⁵ and this factor favors discretionary denial.

5. Factor 5: whether the petitioner and the defendant in the parallel proceeding are the same party

Petitioner SK Hynix and Patent Owner Advanced Memory Technologies are both parties to the District Court Proceeding. EX2001 at 1. When the parties are the same—like in this case—this factor supports denying institution. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 19 (PTAB Dec. 1, 2020) (precedential).

6. Factor 6: other circumstances that impact the Board's exercise of discretion, including the merits.

Factor 6 weighs in favor of discretionary denial. In this case, the merits of the Petition are weak. As Petitioner admits (Petition at 14), the Examiner expressly

⁵ *See* Interim Director Discretionary Process at I.D.

found the issued claims patentable over Meng (EX1006) during prosecution. EX1002 at 200; *see id.* at 179–80. In doing so, the Examiner withdrew a rejection based on Meng and agreed with the Applicant that “Meng fails to teach that the well potential of the analog comparison circuit is applied to the deep-n well corresponding to the first well region,” as recited in the claims. *Id.* at 192; *see id.* at 200 (“Applicant’s arguments are persuasive.”).

First, Petitioner has not shown that Meng discloses applying “the well bias potential of the at least one analog comparison circuit” to the deep-n well corresponding to “the first well region,” the limitation that the Examiner found was missing. Indeed, Meng’s express disclosure contradicts the premise on which Petitioner’s theory rests. The diodes 208*b–n* and 210*b–n* (Meng, FIG. 7) that Petitioner identifies as the “at least one analog comparison circuit” are not “NMOS transistors with their drains tied to their gates,” as Petitioner asserts. Petition at 43. In describing Figure 7, Meng states that “diodes 208*b–208n*[] and diodes 210*b–210n*” are “described in more detail in connection with FIG. 4.” EX1006 at 8:59–61. In that context, Meng explains that 208 and 210 are the diodes “formed at the junctions between the deep N-well region 204 and the P-substrate region 206,” as shown below. *Id.* at 7:11–12.

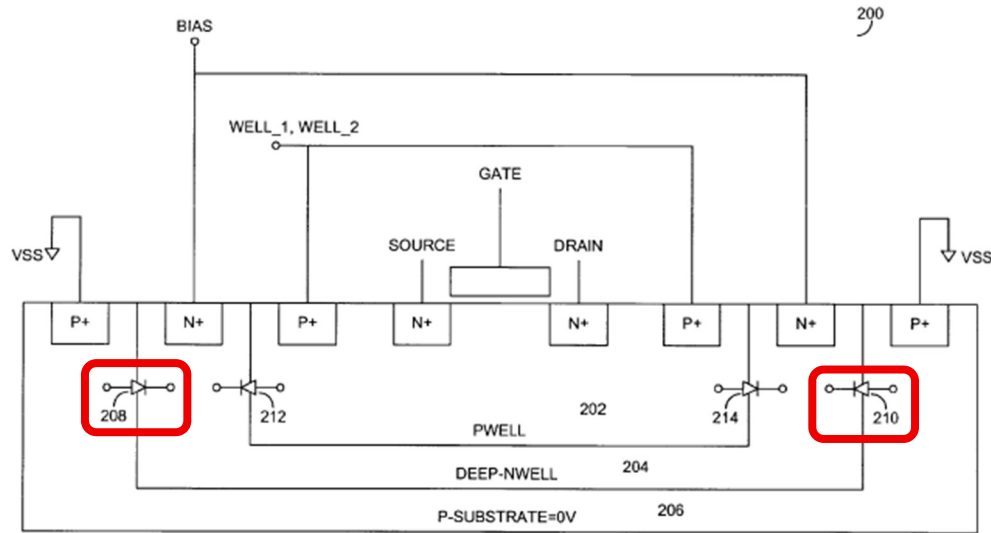


FIG. 4

EX1006, FIG. 4 (annotated)

Moreover, because 208 and 210 are just *diodes* and are not *transistors*, Meng also contradicts Petitioner’s assumption that “ V_t ” (Meng, Figure 8) is “the threshold voltage []’ of the diodes . . . 208*i* and 210*i*.” Petition at 46 (quoting EX1006 at 9:47–48) (underline added). Meng refers to voltage “ V_t ” as “the transistor threshold voltage,” EX1006 at 9:57–58, and describes several elements in Figure 7 as transistors, including 140”*i*, 142”*i*, 148”*i*, 150”*i*, and 190”*i*, *id.* at 9:6–8. Meng never suggests that transistor threshold voltage “ V_t ” applies to diodes 208*i* or 210*i*, nor does Meng describe diodes 208*i* or 210*i* as transistors. Hence, contrary to Petitioner’s suggestion, the alleged relationship between “ V_t ” and the “DEEP-NWELL REGION 204*i* BIAS” in Meng’s Figure 8 does not teach (nor even suggest) that the bias comes from diodes 208*i* and 210*i* (the alleged comparison circuit). *See* Petition at 46; EX1006, FIG. 8. Rather, Meng teaches that the “BIAS signal” applied

to the deep-N well, as depicted in Figure 4 above, could be any “constant positive voltage” within the range provided. EX1006 at 7:19–22. Ground 2 of the Petition—asserting that the Figure 7 embodiment of Meng anticipates certain claims—is therefore weak on the merits.

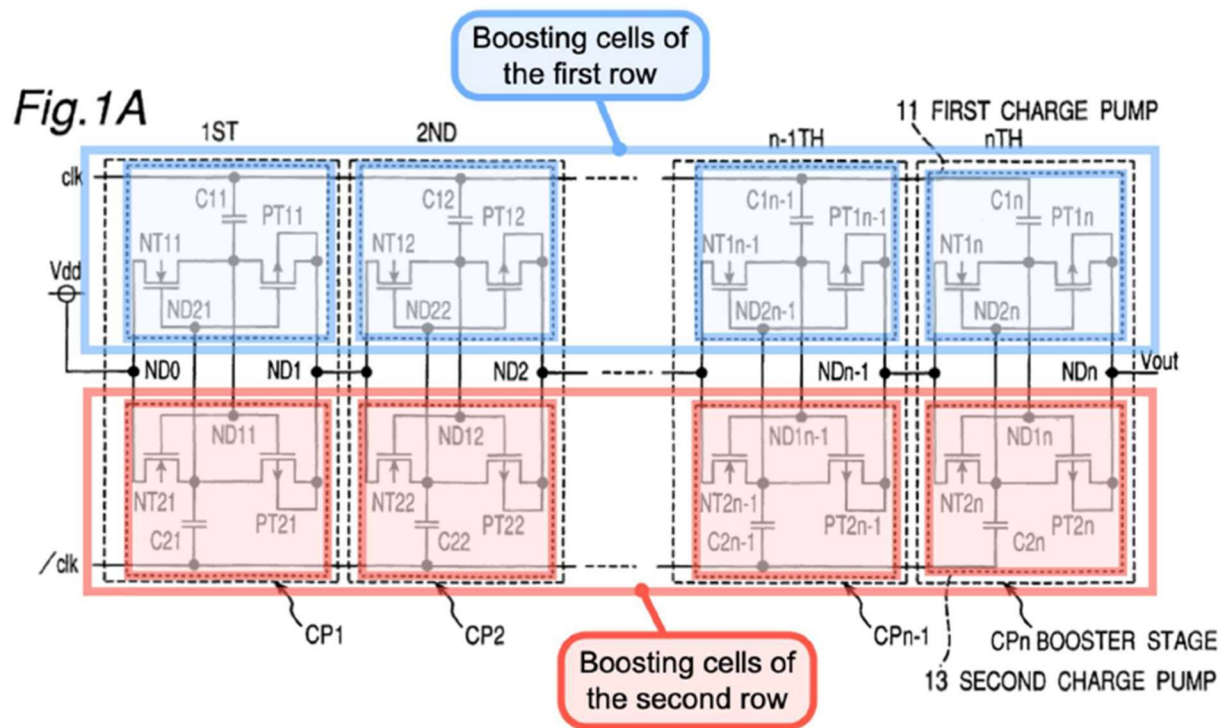
Second, Petitioner’s proposed combination of Meng with Park (Ground 3) fares no better than Ground 2. Ground 3 identifies a different set of elements as the “analog comparison circuit” in Meng’s Figures 5 and 7. *See* Petition at 69–73. But even Petitioner concedes that Meng does not teach applying the well bias potential of this alleged comparison circuit to the alleged first well region. *See id.* at 15 (asserting that “Meng discloses two analog comparison circuits” and arguing that **one** of them teaches applying a well bias potential to the deep N-well).

The combination with Park does not cure Meng’s failure to teach applying the well bias potential of an analog comparison circuit to the deep-N well (the alleged “first well region”). Indeed, Park does not teach an analog comparison circuit at all. Park teaches a single-row boosting circuit; without a second row, there is nothing to compare. *See* EX1007, FIG. 7.

Petitioner relies instead on Park’s disclosure of biasing the “Deep n-well” (Park, Figure 9) using an “input charge pump voltage” from a previous stage, and that voltage is further mediated by transmission through auxiliary MOS device Ms. *Id.* at 6:34–40, FIG. 9; *see* Petition at 73–75. Although this does teach applying some

well bias potential, the crucial element missing from both Meng and Park is that the potential being applied to the deep n-well is the well bias potential of an analog comparison circuit.

Third, Petitioner’s remaining ground (anticipation by Fukushima) is also weak on its merits. Indeed, Fukushima does not even teach the analog comparison circuit of the claims. In particular, the alleged analog comparison circuit does not have the recited relationship to the “output potential[s]” of the boosting cells on the first and second boosting cell rows. This is because the Petition maps the analog comparison circuit to the portion of the boosting cell that generates the output potential for the cells.



Petition at 21 (annotating EX1005, FIG. 1A)

As illustrated in Figure 1A above, there is only one output node for each booster stage. As Fukushima teaches, “[e]ach booster stage CP_n comprises . . . a node ND_n as an output node from which the charge is supplied to the input node of the next (downstream) booster stage CP_{n+1} .” EX1005 at 4:59–64. Fukushima expressly teaches that “[t]he PMOS transistor[] $PT1_n$ or $PT2_n$ sends the charge accumulated in the corresponding pumping capacitor $C1_n$ or $C2_n$ to the node ND_n , respectively.” *Id.* at 5:9–12.

Petitioner’s mapping of the “analog comparison circuit” attempts to carve out the output node (ND_n) and the PMOS transistors ($PT1_n$ or $PT2_n$) from both charge pumps in a given stage. *See, e.g.*, Petition at 22. The remaining portion of the charge pumps (11, 13) cannot function as “boosting cells” because they no longer include the PMOS transistors that send the accumulated charge from the capacitors to the output node. *See id.*; EX1005 at 5:9–12. Accordingly, the “analog voltage levels at nodes $ND1n$ and $ND2n$ ” (the alleged “output potentials” of the claims), Petition at 22, are not output potentials of “boosting cells” on the first and second row as claimed.

In addition, AMT will provide more detailed arguments in its Patent Owner’s Preliminary Response for why the Petition should be denied on its merits. AMT refers the Director to those arguments and incorporates them by reference herein.

On balance, the *Fintiv* factors and additional considerations discussed below strongly favor discretionary denial.

B. Additional Considerations Also Support Discretionary Denial

In addition to the *Fintiv* factor analysis discussed above, there are additional considerations that support discretionary denial.

First, settled expectations of the parties strongly supports discretionary denial. The '557 Patent issued on August 17, 2010—more than 15 years ago. EX1001 at (45). Further, Petitioner has been on notice of the '557 Patent since at least February 3, 2022, when the patent publication (2008/0169864), which later issued as the '557 Patent, was cited as anticipatory art during prosecution of SK Hynix's patent application 17/461,597. EX2009 at 12; EX2010 at (73), (56). Thus, despite being aware of the '557 Patent for more than three years prior to the filing of the complaint in the District Court Proceeding, Petitioner made no effort to challenge the patent prior to the current Petition.

Petitioner's lack of diligence in filing its Petition even after the District Court Proceeding was initiated further supports discretionary denial. PO asserted the '557 Patent against Petitioner in the District Court Proceeding on December 30, 2024. EX2001 at 29. Yet Petitioner waited 8 months after the start of the proceeding (until August 29, 2025) to file its Petition—nearly 5 months after it received PO's

infringement contentions and 2 months after serving its invalidity contentions asserting the same invalidity ground. Petition at 107; EX2003 (DCO) at 5–6.

IV. Conclusion

AMT respectfully requests that the Director discretionarily deny institution of *inter partes* review for the reasons stated herein.

Dated: November 10, 2025

Respectfully submitted,

By: /Michael F. Heim /
Michael F. Heim (Reg. No. 32,702)
Attorney for Patent Owner
Advanced Memory Technologies,
LLC

CERTIFICATE OF SERVICE

The undersigned certifies that pursuant to 37 C.F.R. § 42.6(e), a copy of the foregoing was served via email to lead and backup counsel of record for Petitioner as follows:

Lead Counsel for Petitioner	Back-up Counsel for Petitioner
James M. Glass (Reg. No. 46,729) jimglass@quinnemanuel.com QUINN EMANUEL URQUHART & SULLIVAN, LLP 295 5 TH Avenue, 9 th Floor New York, NY 10016 Phone: (212) 849-7000	Brian Saunders (Reg. No. 72,451) briansaunders@quinnemanuel.com QUINN EMANUEL URQUHART & SULLIVAN, LLP 1300 I St NW #900 Washington, DC 20005 Phone: (202) 538-8000 Kevin Jang kevinjang@quinnemanuel.com QUINN EMANUEL URQUHART & SULLIVAN, LLP 50 California Street, 22 nd Floor San Francisco, California 94111 Phone: (415) 875-6600 John Saidi johnsaidi@quinnemanuel.com QUINN EMANUEL URQUHART & SULLIVAN, LLP 295 5th Avenue, 9th Floor New York, New York 10016 Tel: (212) 849-7000 Fax: (212) 849-7100

Dated: November 10, 2025

Respectfully submitted,

By: /Michael F. Heim /
Michael F. Heim (Reg. No. 32,702)
Attorney for Patent Owner
Advanced Memory Technologies,
LLC

CERTIFICATE OF SERVICE

Pursuant to the Interim Director Discretionary Process, the undersigned hereby certifies that this brief complies with the type-volume limitation of Section II.C.iii because this brief contains 19 pages.

Dated: November 10, 2025

Respectfully submitted,

By: /Michael F. Heim /
Michael F. Heim (Reg. No. 32,702)
Attorney for Patent Owner
Advanced Memory Technologies,
LLC