

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SK HYNIX, INC.,

Petitioner

v.

ADVANCED MEMORY TECHNOLOGIES, LLC,

Patent Owner

IPR2025-01451

U.S. Patent No. 7,969,231

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

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LIST OF EXHIBITS

Exhibit Number	Description
EX1001	U.S. Patent No. 7,969,231 (“’231 Patent”)
EX1002	Declaration of Carl Sechen, Ph.D.
EX1003	List of Recent Expert Witness Engagements of Dr. Carl Sechen
EX1004	Curriculum Vitae of Dr. Carl Sechen
EX1005	Prosecution History for U.S. Pat. No. 7,969,231
EX1006	Patent Owner’s District Court Infringement Chart for ’231 Patent
EX1007	U.S. Pat. No. 7,099,167 (“Fujise”)
EX1008	U.S. Pat. No. 6,836,177 (“Ito”)
EX1009	U.S. Pat. No. 6,473,321 (“Kishimoto”)
EX1010	U.S. Pat. No. 5,941,990 (“Hiiragizawa”)
EX1011	U.S. Pat. No. 8,102,157 (“Abe”)
EX1012	U.S. Pat. No. 5,999,475 (“Futatsuya”)
EX1013	U.S. Pat. No. 7,579,901 (“Frulio”)
EX1014	U.S. Pat. No. 6,080,205 (“Oshikawa”)
EX1015	Patent Owner’s District Court Infringement Chart for ’231 Patent
EX1016	July 17, 2025 Letter re Unmarked Practicing Products
EX1017	Certificate of Formation of AMT (AMT_SKH00001355)
EX1018	Patent Assignment Cover Sheet
EX1019	Petitioner’s Invalidity Chart Exhibit C-X1 based on [REDACTED] [REDACTED]
EX1020	Oct. 26, 2006 SK hynix America Inc. Invoice No. 90099743 (SKH 00011574)

I. INTRODUCTION

Patent Owner's request for discretionary denial should be rejected.

First, Patent Owner has identified no substantive shortcomings in any of the prior art grounds identified in the Petition. Its only substantive challenge is based on a misguided claim construction argument, namely that the term "buffer circuit" should be construed in accordance with the structure in Fig. 3 of the '231 Patent. But as discussed herein, Patent Owner fails to establish why a "buffer circuit" should be limited to a structure disclosed in the specification and neglects that, even if that were the case, the exact structure was also disclosed in the prior art grounds cited in the Petition.

Second, Patent Owner has presented no evidence to support any settled expectations beyond the mere age of the '231 Patent itself. Patent Owner's recent acquisition of the patent, its lack of practice or marking in the relevant technology field, and its impermissibly broad application of the '231 patent claims for purposes of infringement have made clear that any such expectation is more than outweighed by the ***Petitioner's*** settled expectation of freedom to operate.

As discussed in detail below, the *Fintiv* factors and other considerations support that the Board's review is warranted.

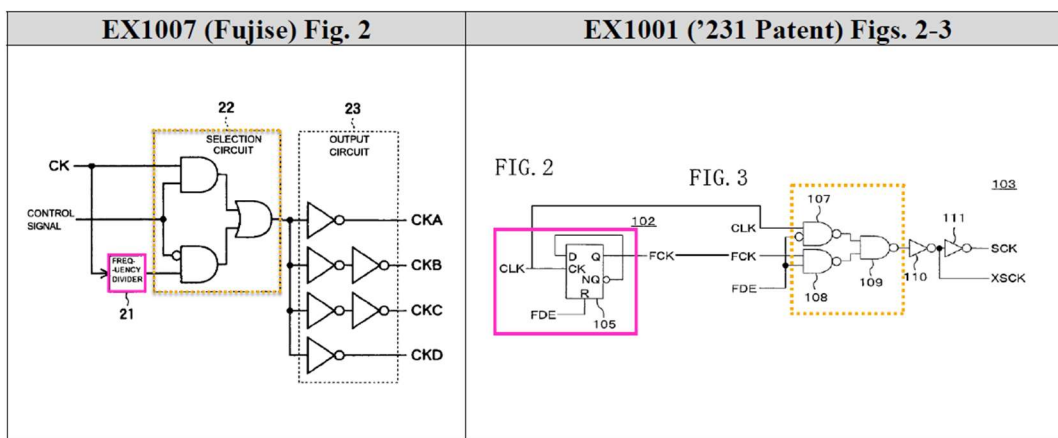
II. ARGUMENT

A. The Strong Merits of the Petition Warrant Referral

The merits of the petition are strong and weigh against discretionary denial. All four Grounds in the Petition demonstrate how each reference anticipates or renders obvious all asserted claims. Patent Owner's sole complaint is that the claimed "buffer circuit configured to select [and supply]..." requires a particular structure above and beyond what it is configured to perform. *See, e.g.*, Paper 7 at 12-14 (proposing to construe the claimed "buffer circuit" based on the structure of Fig. 3). Specifically, Patent Owner asserts that Fig. 3's "inverters (110, 111) are also part of the buffer circuit disclosed in the '231 patent." *Id.* at 13.

Patent Owner, however, does not explain why a circuit that performs the recited selection function is insufficient to be a "buffer circuit." There is no reason a "buffer circuit," which Patent Owner does not even argue is a means-plus-function term governed under §112(6), should have the inverter structure disclosed in Fig. 3. As Dr. Sechen explained, at the time of the '231 Patent, "a POSITA would have understood the claimed 'buffer circuit' in the '231 Patent to be a multiplexer." EX1002 at ¶69. Dr. Sechen further explained how the circuitry identified by Petitioner in the prior art are multiplexers and thus a buffer circuit. *See, e.g., id.* at ¶¶71, 126, 192. As such, contrary to Patent Owner's allegations, the Petition sufficiently shows the presence of a "buffer circuit" in the prior art.

Further, even if a buffer circuit were required to have inverters as disclosed in Fig. 3 of the '231 patent, that would still fail to be a point of a distinction. As Petitioner has made clear, the “buffer circuit” of the '231 Patent has a nearly *identical* structure and *identical* function as the identified circuitry in the prior art, such as Fujise, shown below:



Petition at 6 (showing similar “inverter” structures as those in Fig. 3 of the '231 Patent). The merits of the Petition thus weighs against discretionary denial.

B. Petitioner’s Settled Expectations Outweigh Patent Owner’s

The parties’ settled expectations weigh against discretionary denial. “There may be persuasive reasons why the Board should review challenged claims several years after their issuance date.” *Intel Corp. v. Proxense LLC*, IPR2025-00327, Paper 12, p. 2 (June 26, 2025). For example, “a patent may have been in force for years but may not have been commercialized, asserted, marked, licensed, or otherwise applied in a petitioner’s particular technology space, if at all.” *Id.* Such

considerations, as are the case here, “weigh against a patent owner’s claim of settled expectations and bears on the Director’s decision.” *Id.*

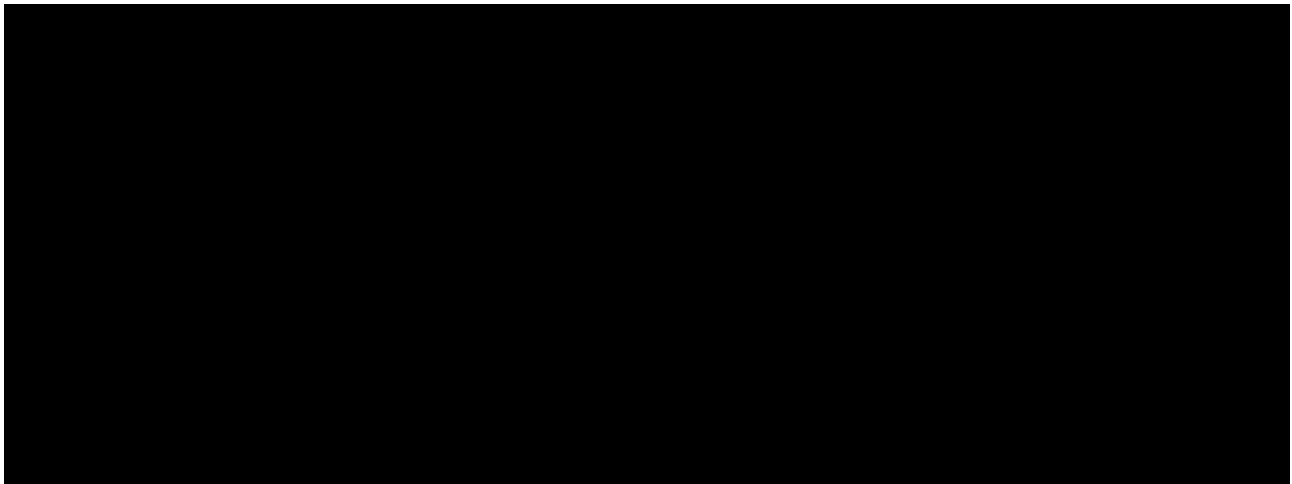
The ’231 Patent was never commercialized, asserted, or marked. In fact, ever since Petitioner identified unmarked practicing products under the *Artic Cat* framework in July 2025 (EX1016), Patent Owner has failed to present *any evidence at all* that it met its marking obligations with respect to the ’231 Patent.

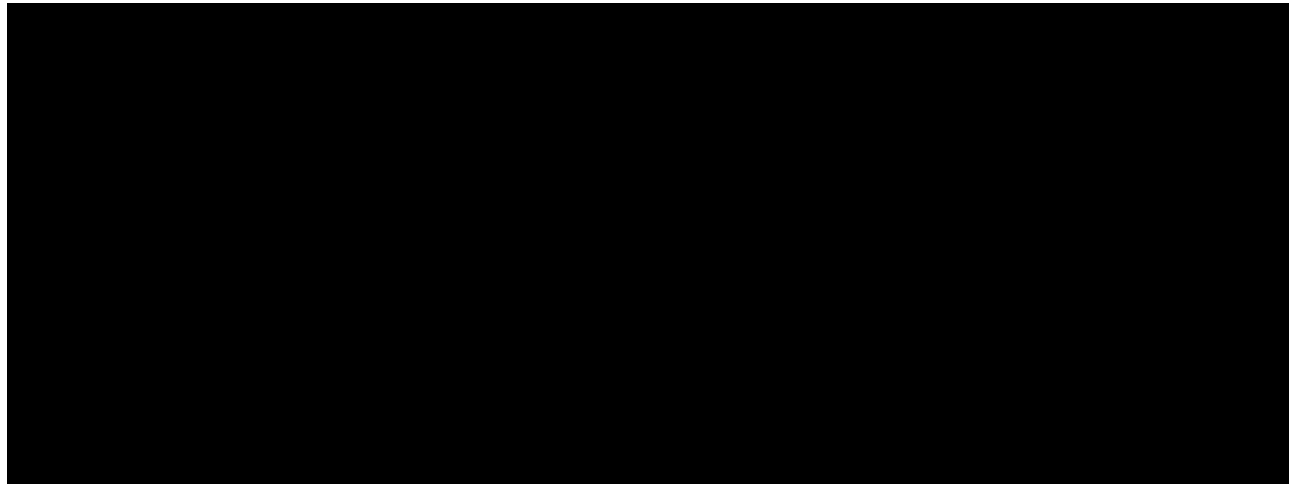
Moreover, Patent Owner cannot possibly have had “settled expectations” when it has only owned the ’231 Patent for less than two years and did not exist as an entity until March 19, 2024, a mere *six days* before it acquired the ’231 Patent. *See* EX1017; EX1018. The age of the ’231 Patent alone is insufficient to establish settled expectations of the Patent Owner, who has not conducted any research, development, testing, or “otherwise applied in [] [P]etitioner’s particular technology space” at all. *Intel*, IPR2025-00327, Paper 12, pp. 2-3.

Rather, it was Petitioner who had settled expectations in their freedom to operate. For example, Petitioner has commercialized the accused products and predecessors of the accused products since at least 2006. EX1019; EX1020. In other words, Petitioner has been producing the accused technology for over 18 years before Patent Owner acquired the ’231 Patent and almost two years before the filing of that patent. And during that entire time, none of the successive prior owners of the ’231 Patent had even remotely suggested Petitioner’s products were infringing,

until Patent Owner filed the District Court complaint on December 30, 2024, asserting the '231 Patent for the first time since its creation.

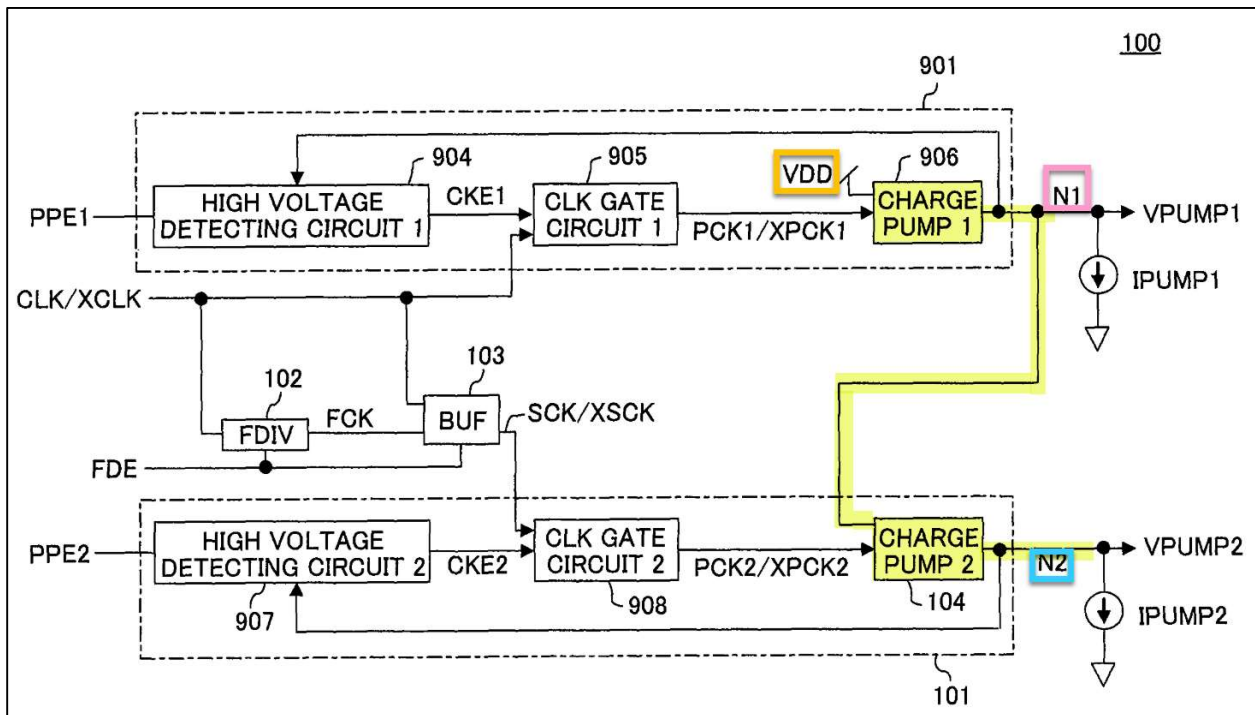
The total silence in the years preceding Patent Owner's existence where the '231 Patent was never asserted is hardly surprising. To support its claim of infringement, Patent Owner had to re-interpret the '231 Patent claims beyond recognition. As but one example, the '231 Patent expressly requires "a first boost circuit provided between a **first voltage** and a **first terminal**" and "a second boost circuit provided between the **first terminal** and a **second terminal**." But rather than identifying three such voltage/terminals as reflected in the claim language color-coded above, Patent Owner has relied on only two, shown below:



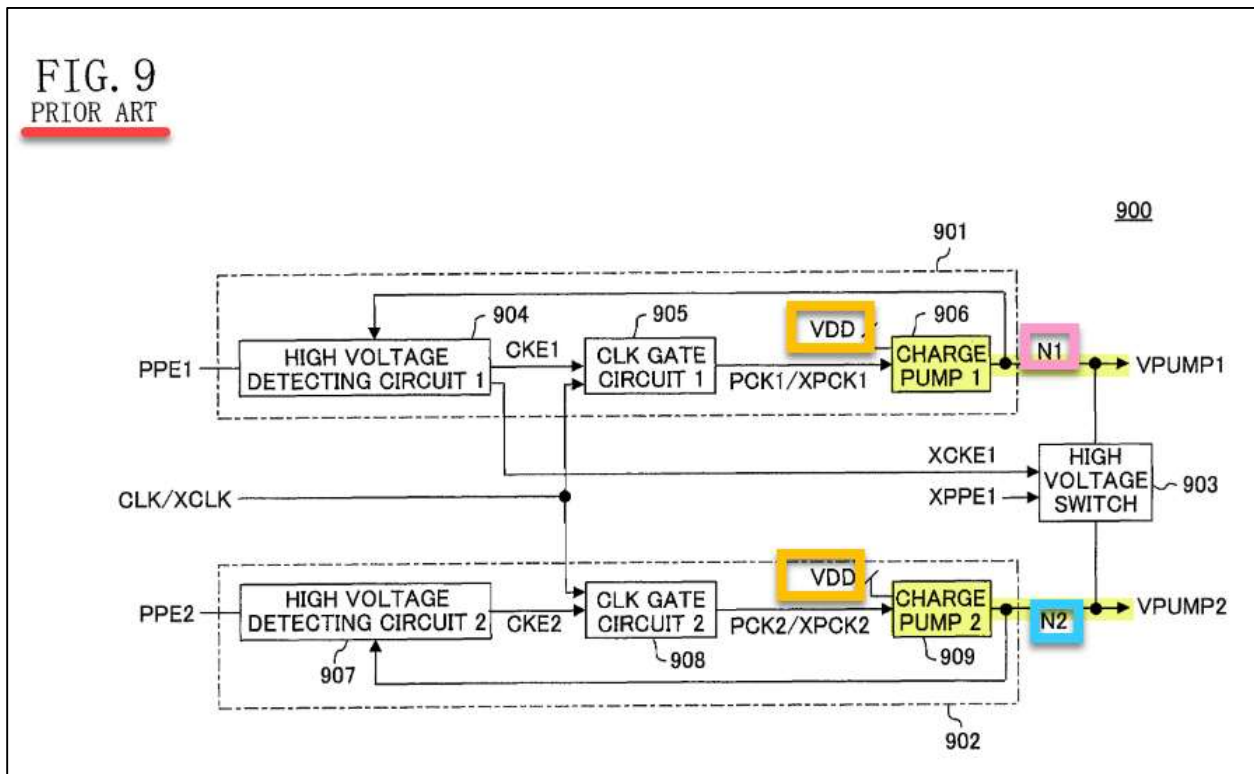


EX 1015 at 8, 10. Specifically, Patent Owner has relied on the same node as meeting both the claimed “**first voltage**” and “**second terminal**.”

This is directly contradictory to the '231 Patent itself. In particular, the '231 Patent is directed to two *serially-connected* boost circuits, as shown below, which is made readily apparent by the claimed “first voltage,” “first terminal,” and “second terminal.”



EX1001 at Fig. 1. However, Patent Owner would re-cast claim 1 to encompass *parallel-connected* boost circuits, as shown in applicant-admitted prior art in the '231 Patent. In other words, Patent Owner's infringement allegations are based on an overly broad interpretation of claim 1 that would ensnare the prior art.



EX1001 at Fig. 9 (applicant-admitted prior art).

Patent Owner has no basis to claim settled expectation in this broad interpretation of the '231 Patent, particularly when it was expressly identified as prior art in the patent specification and such an interpretation was never manifested by any prior owners (or inventors) of the patent.

While Patent Owner suggests that Petitioner was aware of the '231 Patent before the filing of the District Court proceeding (*see* Paper 7 at 15), Patent Owner neglects the fact that it was the *application* that eventually became the '231 Patent that was cited in an unrelated Hynix patent application, not the issued '231 Patent itself. *See* EX 2010. Nor did the patent examiner provide any *explanation* for citing

that application, as it was not relied upon or even identified in any rejections. Petitioner thus had no reason to suspect it had any relevance to the accused products, especially not in the way that Patent Owner had re-interpreted the claims, as discussed above.

Under circumstances like the ones at issue here, the age of the '231 Patent should weigh against discretionary denial, not in favor of it. *See Anthony Inc. v. ControlTec, Inc.*, IPR2025-00559, Paper 12, at 2 (July 16, 2025) (petitions involving 17- and 18-year-old patents referred to merits panel); *Taiwan Semiconductor Manufacturing Company Ltd. et al. v. Marlin Semiconductor Ltd.*, IPR2025-00847, Paper 11 (Sept. 3, 2025) (15-year-old patent); *Tesla v. Navy*, IPR2025-00341, Paper 12 (June 13, 2025) (18-year-old patent); *Tesla v. Intell. Ventures II*, IPR2025-00339, Paper 9 (June 13, 2025) (14-year-old patent).

C. The PTAB is Better Suited to Adjudicate the Complex Subject Matter Claimed in the '231 Patent

As the Board found in *Tesla*, it is better suited to handle the “large number and vast scope” of patents directed toward “a diverse range of subject matter.” *Tesla, Inc. v. Intell. Ventures II LLC*, IPR2025-00217, Paper 9, at 2-3. Here, all five asserted patents, including the '231 Patent at issue in this petition, are directed to complex technologies relating to semiconductor manufacturing, device physics,

and/or circuit design. The asserted patents claim details that require in-depth knowledge and understanding of semiconductor memory devices, including:

- '888 and '835 Patents – structures and operations of electrically erasable programmable read only memory (EEPROM),
- '231 Patent – structures and operations of an internal voltage generating circuit with serially connected charge pump circuits
- '557 and '018 Patents – structures and operations of a boost circuit with cross-coupled charge pump stages

Indeed, IPR challenges of patents in the same or similar technology area have been instituted and discretionary denial requests rejected. *See, e.g., Taiwan Semiconductor*, IPR2025-00847, Paper 11. The Director should similarly reject Patent Owner's discretionary denial request here.

D. The *Fintiv* Factors Weigh Against Discretionary Denial

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

Patent Owner's reliance on the District Court's denial of Petitioner's *first* motion for stay is misplaced. Notably, the District Court denied that motion *without prejudice* to refile after institution. EX2005. And even Patent Owner's own cited authority plainly states that, "where the PTAB has instituted IPR proceedings ... as to all claims of all asserted patents, this Court has [] ***routinely stayed cases.***" *See* Paper 7 at 7 (citing *AGIS Software Dev. LLC v. Google LLC*, No. 2:19-cv-359-JRG, 2021 WL 465424, at *2 (E.D. Tex. Feb. 9, 2021)); *see generally, Maxeon Solar Pte.*

Ltd. v. Canadian Solar Inc., No. 2:24-CV-210-JRG, 2025 WL 1811321, at *3 (E.D. Tex. July 1, 2025) (granting motion to stay when “the PTAB instituted the IPRs of [Plaintiff’s originally asserted] claims”); *RavenWhite Licensing LLC v. Home Depot, Inc.*, No. 2:23-CV-00423-JRG-RSP, Dkt. 96 (E.D. Tex. Jun. 18, 2025) (same); *Harbor Island Dynamic, LLC v. Samsung Elecs. Co.*, No. 2:24-CV-00140-JRG-RSP, Dkt. 81 (E.D. Tex. May 19, 2025) (same).

Indeed, the District Court has previously granted a stay even where only a *subset* of the challenged claims were instituted. *See, e.g., Cellular Commc’ns Equip., LLC v. Samsung Elecs. Co.*, No. 6:14-CV-759, 2015 WL 11143485, at *4 (E.D. Tex. Dec. 16, 2015) (granting Defendant’s motion for *partial* stay when IPR petitions involving a subset of asserted claims were instituted). Given that Petitioner has filed IPR petitions challenging all five patents that are asserted in the District Court, and given the strength of the petitions (*see, e.g.,* Sect. II.A, *supra*), there is a meaningful possibility that the District Court case will be stayed.

Accordingly, this factor weighs against discretionary denial.

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

As Patent Owner concedes in its briefing, no claim construction briefing, *Markman* hearing, or expert discovery has even commenced in the District Court proceeding. *See* Paper 7 at 8. And fact discovery is still ongoing, with no depositions

having taken place except one related to the parties’ venue dispute. While Patent Owner leans heavily on a “projected trial date” (*id.* at 9) that occurs approximately five months before the final written decision deadline, the actual trial date in the District Court often takes place months later. The table below compares the actual trial date and “projected trial date” for recent cases tried in the District Court:

Case	Projected Date	Actual Date	Difference
<i>Headwater v. Samsung</i> , 2:22-cv-422-JRG-RSP	8/5/2024 (Dkt. 57)	1/13/2025 (Dkt. 488)	5 months
<i>Force Mos v. ASUSTek</i> , 2:22-cv-460-JRG	10/7/2024 (Dkt. 23)	2/7/2025 (Dkt. 349)	4 months
<i>Touchstream v. Charter</i> , 2:23-cv-59-JRG-RSP	10/28/2024 (Dkt. 61)	3/3/2025 (Dkt. 366)	4 months
<i>Headwater v. Samsung</i> , 2:23-cv-103-JRG-RSP	1/6/2025 (Dkt. 63)	4/21/2025 (Dkt. 420)	3.5 months
<i>Multimedia v. LG Elecs.</i> , 2:22-cv-494-JRG-RSP	11/18/2024 (Dkt. 34)	5/19/2025 (Dkt. 288)	6 months
<i>Daingean v. T-Mobile</i> , 2:23-cv-347-JRG-RSP	4/7/2025 (Dkt. 55)	7/7/2025 (Dkt. 454)	3 months
<i>Daingean v. AT&T</i> , 2:23-cv-123-JRG-RSP	1/6/2025 (Dkt. 48)	9/5/2025 (Dkt. 566)	8 months
<i>Pictiva v. Samsung</i> , 2:23-cv-495-JRG-RSP	8/4/2025 (Dkt. 40)	10/27/2025 (Dkt. 556)	2.5 months
Average			4.5 months

As shown, the actual trial date is, on average, 4.5 months after the projected trial date that Patent Owner relies upon, which would place the trial in the District Court in late February 2027, merely days before March 1, 2027 statutory deadline on which a final written decision will issue. This factor is thus, at best, neutral.

3. *Fintiv* Factor 3: Investments in the parallel proceeding by the court and the parties

The district court litigation will still be in an early stage at the time of the expected institution decision. The *Markman* hearing is scheduled for April 10, 2026 and close of fact discovery is not until May 18, 2026, both occurring well after March 2, 2026, the projected institution decision deadline. As the Board has found in the past, where a claim construction order is unlikely to issue until after the expected institution date, as here, this factor weighs against discretionary denial. *See generally, Med-El Elektromedizinische Geräte Ges.m.b.H. v. Advanced Bionics AG*, No. IPR2020-00190, 2020 WL 3033320, at *5 (P.T.A.B. June 3, 2020) (weighing factor 3 in favor of institution where “a claim construction order will not have issued” at the time of the institution decision); *Facebook, Inc. v. Use Ip P’ship, L.P.*, No. IPR2021-00033, 2021 WL 1718801, at *5 (P.T.A.B. Apr. 30, 2021) (weighing in factor 3 in favor of institution where “[t]he district court proceeding is still at a relatively early stage”). This factor thus weighs against discretionary denial.

4. *Fintiv* Factor 4: Overlap between issues raised in the petition and the parallel proceeding

Petitioner has filed a stipulation broader than a *Sotera* stipulation, eliminating all overlapping issues between the petition and the District Court proceeding. *See* Paper 6. Specifically, Petitioner stipulated that:

if the Board institutes inter partes review in this proceeding, IPR2025-

01449, Petitioner will not pursue in the parallel litigation, *Advanced Memory Technologies, LLC v. SK hynix Inc.*, Case No. 2:24-cv-01078-JRG (E.D. Tex.), (i) the specific grounds raised in IPR2025-01449; (ii) any grounds of invalidity arising under 35 U.S.C. § 102 or § 103 involving only patent or printed publication prior art that could have reasonably been raised before the Board with respect to U.S. Pat. No. 8,593,888, including the same grounds in the Petition (Paper 1); or (iii) any ground based on a combination of system prior art and the references asserted as part of a ground raised in IPR2025-01449, as reflected in the table summarizing the statutory grounds for challenges in Section I of the Petition.

Petitioner’s stipulation mirrors the “broad stipulation” that the Board has recently identified and found to “tip the balance against discretionary denial.” *See, e.g., Shenzhen Tuozhu Technology Co., Ltd v. Stratasys Inc.*, IPR2025-00531, Paper 10 at 3 (July 17, 2025); *Tesla, Inc., Intellectual Ventures II LLC*, IPR2025-00217, Paper 9 at 2.

Patent Owner misrepresents the scope of Petitioner’s stipulation by arguing that “Petitioner intends to try validity based on purported prior art in both the District Court Proceeding and this IPR.” Paper 7 at 12. But Patent Owner misses the point because this factor evaluates the extent of the overlap of the issues raised in both proceedings, not simply whether Petitioner raises an invalidity defense. While Petitioner intends to present in the District Court proceeding certain *system* prior art, there are no overlapping issues because such prior art is not statutorily permitted in an IPR petition. 35 U.S.C. § 311 (b). Petitioner’s stipulation further precludes any overlap by clarifying that, in the District Court, Petitioner will not pursue “any

ground based on a combination of system prior art and the references asserted as part of a ground raised in [this IPR].” Paper 6 at 2.

Patent Owner also takes issue with the timing of Petitioner’s stipulation, but cites no authority that it was untimely filed. Instead, Petitioner’s stipulation was filed “as soon as practicable,” upon evaluation of *system* prior art, many of which are at the exclusive possession of third-parties, and provided Patent Owner ample opportunity (*i.e.*, over two weeks) to “address the impact of the stipulation in its discretionary denial brief.” Interim Director Discretionary Process at § I.D. Patent Owner suffered no prejudice.

Accordingly, this factor weighs against discretionary denial.

5. *Fintiv* Factor 5: Whether the petitioner and the defendant in the parallel proceeding are the same party

The Petitioner here is the same party as the defendant in the district court case. Although this factor may weigh slightly in favor of discretionary denial, it does not outweigh the other factors discussed above.

6. *Fintiv* Factor 6: Other circumstances that impact the Board’s exercise of its discretion, including the merits

As discussed above and in the Petition, all four grounds in the Petition anticipate and/or render obvious the challenged claims, and the only dispute identified by Patent Owner is based on an incorrect interpretation of the term “buffer circuit.” Accordingly, the merits of the petition weigh strongly against granting

Patent Owner's request.

III. CONCLUSION

Sarepta respectfully requests that the Board deny Patent Owner's request for discretionary denial.

Respectfully submitted,

December 1, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §42.6, I hereby certify that on December 1, 2025, the foregoing document, Petitioner's Opposition to Patent Owner's Request for Discretionary Denial, and Exhibits 1016-20 were served via email on the following counsel of record:

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