

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PHISON ELECTRONICS CORPORATION,
Petitioner,

v.

VERVAIN, LLC,
Patent Owner.

IPR2025-00214
U.S. Patent No. 9,997,240

**PATENT OWNER'S REQUEST FOR DISCRETIONARY DENIAL OF
INSTITUTION**

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EXHIBIT LIST

Exhibit No.	Description
2001	Declaration of Dr. Sunil Khatri
2002	[RESERVED]
2003	[RESERVED]
2004	[RESERVED]
2005	[RESERVED]
2006	<i>Vervain v. Western Digital Corp. et al.</i> , No. 6:21-cv-488-ADA, Dkt. 41 (W.D. Tex. Jan. 24, 2022) (Claim Construction Order)
2007	[RESERVED]
2008	[RESERVED]
2009	[RESERVED]
2010	[RESERVED]
2011	[RESERVED]
2012	[RESERVED]
2013	[RESERVED]
2014	[RESERVED]
2015	[RESERVED]
2016	[RESERVED]
2017	[RESERVED]
2018	<i>Vervain, LLC v. Phison Electronics Corporation</i> , No. 1:24-cv-259-ADA, Dkt. 16 (W.D. Tex. Jul. 15, 2024) (agreed scheduling order)
2019	[RESERVED]

Exhibit No.	Description
2020	[RESERVED]
2021	“Judge Albright Patent FAQ,” https://www.txwd.uscourts.gov/for-attorneys/judge-albright-courtroom-faq/ . Accessed December 18, 2024)
2022	[RESERVED]
2023	Judge Albright’s Standing Order Governing Proceedings (OGP) 4.4—Patent Cases, Filed January 23, 2024.
2024	Excerpts from the Prosecution History of U.S. Patent No. 11,830,546
2025	U.S. Patent App. Pub. No. 2011/0096601 to Gavens et al. (“Gavens-601”)
2026	[RESERVED]
2027	[RESERVED]
2028	[RESERVED]
2029	[RESERVED]
2030	[RESERVED]
2031	Preliminary Claim Constructions for <i>Vervain, LLC v. Phison Electronics Corporation</i> , No.1:24-cv-259-ADA and <i>Vervain, LLC v. Kingston Technology Company., et al.</i> , No. 1:24-cv-254-ADA – email from Mr. Brown received on February 5, 2025.
2032	Markman Hearing Transcript dated February 6, 2025, for <i>Vervain, LLC v. Phison Electronics Corporation</i> , No. 1:24-cv-259-ADA and <i>Vervain, LLC v. Kingston Technology Company., et al.</i> No. 1:24-cv-254-ADA.
2033	<i>Vervain v. Western Digital Corp. et al.</i> , No. 6:21-cv-00488-ADA, Dkt. 180 (W.D. Tex. Jul. 26, 2023) (Redacted Copy of Order on the Pending Motions and Motions <i>In Limine</i>).

Exhibit No.	Description
2034	[RESERVED]
2035	[RESERVED]
2036	[RESERVED]
2037	<i>Vervain, LLC v. Phison Electronics Corp.</i> , No. 1:24-cv-00259, Dkt. 53 (W.D. Tex. Jan. 29, 2025) (Joint Notice Extending Deadlines)
2038	[RESERVED]
2039	<i>Phison Electronics Corp. v. Vervain, LLC</i> , PGR2024-00047, Paper 9 (P.T.A.B. Mar. 17, 2024) (Decision Denying Institution of Post-Grant Review of U.S. Patent No. 11,830,546)
2040	[RESERVED]
2041	<i>Phison Electronics Corp. v. Vervain, LLC</i> , PGR2024-00048, Paper 9 (P.T.A.B. April 28, 2025) (Decision Denying Institution of Post-Grant Review of U.S. Patent No. 11,854,612)
2042	Docket Sheet for <i>Vervain, LLC v. Phison Electronics Corporation</i> , No. 1:24-cv-259-ADA (W.D. Tex.) (accessed May 12, 2025)
2043	Phison’s Final Invalidity Contentions served on February 28, 2025 in <i>Vervain, LLC v. Phison Electronics Corporation</i> , No. 1:24-cv-259-ADA (W.D. Tex.)
2044	“Interim Processes for PTAB Workload Management Memorandum,” issued March 26, 2025, https://www.uspto.gov/sites/default/files/documents/InterimProcesses-PTABWorkloadMgmt-20250326.pdf . Accessed May 13, 2025.

I. INTRODUCTION

Pursuant to the “Interim Processes for PTAB Workload Management Memorandum” issued March 26, 2025 (“the *PTAB Memorandum*”) and the Board’s Notice Extending the Deadline for Discretionary Briefing dated April 14, 2025 (Paper 7), Patent Owner Vervain, LLC (“PO” or “Vervain”) respectfully submits this brief requesting that the Director exercise her discretion to deny institution of the Petition for *Inter Partes* Review (IPR) (Paper 2) of U.S. Patent No. 9,977,240 (“240 Patent” or “the Challenged Patent”) filed by Phison Electronics Corporation (“Phison” or “Petitioner”).

The Director should exercise her discretion and deny institution under 35 U.S.C. § 314(a)—instituting this Petition would require a considerable and inefficient use of the Board’s resources. The parties are already litigating a parallel case in district court, which involves the Challenged Patent and seven others. The parallel case is well past its infancy. Before the institution decision is due in this IPR proceeding, the district court will have already held the *Markman* hearing, and the parties will have completed fact discovery and submitted expert reports. And trial in the district court case is scheduled for *eight months before* the final written decision deadline here. Furthermore, Petitioner advances overlapping invalidity grounds in district court but *has not stipulated to any estoppel* in the event this

Petition is instituted. The advanced parallel proceeding should proceed, and this Petition should be denied.

Further, the Petition is weak on the merits. The Petition includes *three* cursory single-reference obviousness grounds challenging claims 1-10 (“Challenged Claims”). Petitioner’s grounds rely on theories based on U.S. Patent No. 8,634,240 (“Gavens”) (Ex. 1045), U.S. Patent Appl. Pub. No. 2009/0327591 (“Moshayedi”) (Ex. 1043), and U.S. Patent Appl. Pub. No. 2008/0140918 (“Sutardja”) (Ex. 1042), respectively. Each of these grounds, however, is inadequately explained. Petitioner omits certain limitations from its analysis entirely, and where limitations are addressed, the Petition fails to reconcile critical differences between the Challenged Claims and the prior art.

Accordingly, PO respectfully requests that the Director exercise her discretion to deny institution of the Petition.

II. BACKGROUND

A. The 240 Patent And The Vervain Patent Family

U.S. Patent No. 9,997,240 (the “Challenged Patent”) belongs to a family of patents including U.S. Patent Nos. 8,891,298; 9,196,385; 9,997,240; 10,950,300; 11,830,546; 11,854,612; 11,967,369; and 11,967,370 (the “Vervain Patents”). These patents share the same specification and are continuations stemming from U.S. Patent No. 8,891,298.

The Vervain Patents, each entitled “Lifetime Mixed Level Non-Volatile Memory System,” have effective filing dates of July 19, 2011. Ex. 1001, Cover. Dr. G. R. Mohan Rao is the sole named inventor of the Vervain Patents.

At a high level, the Vervain Patents describe a reliable flash memory storage system combining both single-level cell (SLC) and multi-level cell (MLC) non-volatile memories.¹ Ex. 1001, Abstract; Ex. 2001, ¶38. SLC memory stores 1 bit per cell, and MLC memory stores more than 1 bit per cell. Ex. 1001, 2:13-16; Ex. 2001, ¶¶32-34. In general, SLC is faster and less prone to errors, but requires more space and power to store a given amount of data. Ex. 1001, 1:53-58.

The Vervain Patents describe a particular way of writing data to MLC and performing a data integrity test. The data integrity test checks the integrity of the data (*i.e.*, whether errors have occurred). The Vervain Patents explain that, if the data integrity test reveals a problem such as corrupt data, the data can be remapped to SLC (which is less error-prone) or other MLC blocks. Ex. 1001, 3:9-3:31, 4:23-30; Ex. 2001, ¶36.

¹ Non-volatile memories can store information even after the system is powered off. Flash memory is a specific type of non-volatile memory, where data is stored in “blocks” of “pages.” Ex. 1001, 2:48-65; Ex. 2001, ¶27.

The Vervain Patents further explain that one can distinguish between “hot” blocks (which receive more frequent writes), and “cold” blocks (which receive less frequent writes). *Id.*, 6:46-58. Because SLC has greater endurance, “hot” blocks can be allocated to SLC to increase the lifetime of the system. *Id.* “Cold” blocks, on the other hand, can be allocated to MLC to take advantage of its higher density storage. Ex. 2001, ¶37.

1. The Challenged Claims

The Challenged Patent includes two independent claims: Claims 1 and 6. Claim 1 is representative for purposes of this brief. Claim 1 requires:

Claim 1	
[1Pre]	A system for storing data comprising:
[1a]	at least one MLC non-volatile memory module comprising a plurality of individually erasable blocks;
[1b]	at least one SLC non-volatile memory module comprising a plurality of individually erasable blocks; and
[1c]	a controller coupled to the at least one MLC non-volatile memory module and the at least one SLC non-volatile memory module, the controller maintaining an address map of at least one of the MLC and SLC non-volatile memory modules, the address map comprising a list of logical address ranges accessible by a computer system, the list of logical address ranges having a minimum quanta of addresses, wherein each entry in the list of logical address ranges maps to a similar range of

	physical addresses within either the at least one SLC non-volatile memory module or within the at least one MLC non-volatile memory module;
[1d]	wherein the controller is adapted to determine if a range of addresses listed by an entry and mapped to a similar range of physical addresses within the at least one MLC non-volatile memory module, fails a data integrity test, and, in the event of such a failure, the controller remaps the entry to the next available equivalent range of physical addresses within the at least one SLC non-volatile memory module; and
[1e]	wherein the controller is further adapted to determine which of the blocks of the plurality of the blocks in the MLC and SLC non-volatile memory modules are accessed most frequently and wherein the controller segregates those blocks that receive frequent writes into the at least one SLC non-volatile memory module and those blocks that receive infrequent writes into the at least one MLC nonvolatile module, and maintain a count value of the blocks in the MLC non-volatile memory module determined to have received frequent writes and that are accessed most frequently on a periodic basis when the count value is a predetermined count value, transfer the contents of the counted blocks in the MLC non-volatile memory module determined to have received frequent writes after reaching the predetermined count value to the SLC non-volatile memory module and which determined blocks in the SLC are determined in accordance with the next equivalent range of physical addresses determined by the controller.

B. Petitioner's IPR And PGR Filings

Petitioner filed requests for *inter partes* review and post grant review challenging each of the Vervain Patents—U.S. Patent Nos. 8,891,298 (IPR2025-00212); 9,196,385 (IPR2025-00213); 9,997,240 (IPR2025-00214); 10,950,300 (IPR2025-00215); 11,830,546 (PGR2024-00047); 11,854,612 (PGR2024-00048); 11,967,369 (PGR2025-00010); and 11,967,370 (PGR2025-00011).

The Board has already denied institution of two petitions on the merits—PGR2024-00047 and PGR2024-00048 (“the Denied PGRs”). *See* Exs. 2039, 2041. The Board issued detailed decisions denying institution, substantively rejecting each of Petitioner's grounds. *See generally id.*

The Board is expected to issue a decision on whether to institute IPR2025-00212 by June 26, 2025.

The Director is expected to decide by July 14, 2025, whether to exercise her discretion to deny institution of the five remaining petitions, including the present Petition. If the Director does not exercise her discretion, the Board is expected to decide whether to deny institution on the merits by August 14, 2025.

C. The Parallel District Court Litigation

On March 8, 2024, Patent Owner (“PO”) filed a complaint against Phison asserting infringement of the Challenged Patent, along with five additional Vervain Patents, in *Vervain, LLC v. Phison Electronics Corporations*, No. 1:24-cv-259-ADA

(W.D. Tex.) (“the Parallel Litigation”). *See* Ex. 2042 (docket sheet showing the original Complaint, filed March 8, 2024, which asserted infringement of the first six Vervain Patents); *see also* Ex. 1082 (First Amended Complaint, filed May 13, 2024, which added infringement assertions for two more Vervain Patents—U.S. Patent Nos. 11,967,369 and 11,967,370).

The Parallel Litigation is well underway. The parties completed claim construction briefing, and the Court (with Judge Albright presiding) provided constructions for the disputed terms—all in PO’s favor—at a *Markman* hearing on February 6, 2025. *See* Exs. 2031-2032. Fact discovery opened on December 9, 2024, and the parties exchanged final invalidity and infringement contentions on February 28, 2025. *See* Exs. 2018, 2037. The Petitioner then moved for leave to file amended final invalidity contentions on March 27, 2025, and PO moved for leave to file amended final infringement contentions on May 2, 2025. *See* Ex. 2042.

Further, the Parallel Litigation is rapidly approaching trial. Fact discovery closes on July 7, 2025, necessitating that the parties begin depositions in June. *See* Ex. 2018. Opening expert reports are due July 11, 2025, followed by summary judgment and *Daubert* motions on September 12. *See* Ex. 2018. ***Trial is scheduled to begin on December 15, 2025.*** *See id.*

D. Prior Litigation Involving The Vervain Patents

Vervain previously asserted four of the Vervain Patents—U.S. Patent Nos. 8,891,298; 9,196,385; 9,997,240; and 10,950,300—against Western Digital and Micron in *Vervain, LLC v. Micron Technology, Inc. et al.*, No. 6:21-cv-487-ADA (W.D. Tex) and *Vervain, LLC v. Western Digital Corp et al.*, No. 6:21-cv-488-ADA (W.D. Tex.) (“the Prior Litigation”). In these cases, the Court held a *Markman* hearing and ruled on summary judgment motions, maintaining the validity of the Vervain Patents. *See, e.g.*, Exs. 2006 (Claim Construction Order, issued January 24, 2022), 2033 (Summary Judgment Order).

Further, in these cases, Micron filed IPRs against U.S. Patent Nos. 8,891,298; 9,196,385; 9,997,240; and 10,950,300 (*see* IPR2021-01547, -01548, -01549, and -01550). These IPRs were terminated prior to Final Written Decisions, following the parties’ joint motions to terminate after reaching a settlement.

III. THE DIRECTOR SHOULD EXERCISE HER DISCRETION AND DENY INSTITUTION UNDER 35 U.S.C. § 314(a)

The Director should exercise her discretion and deny institution on all grounds because of the significant overlap with the Parallel Litigation, which is scheduled for trial well before a Final Written Decision would be expected here.

As shown below, the *Fintiv* factors all weigh in favor of denying institution under 35 U.S.C. § 314(a). *See NXP USA, Inc. v. Impinj, Inc.*, PGR2022-00005, Paper 18 at 7 (P.T.A.B. May 2, 2022) (weighing *Fintiv* factors and denying

institution); *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (P.T.A.B. Mar. 20, 2020) (“*Fintiv*”).

A. Factor 1: The Parallel Litigation Has Not Been Stayed And Is Unlikely To Be Stayed Even If This Petition Is Instituted

This factor weighs against institution because a stay of the Parallel Litigation is highly unlikely. Petitioner has not sought a stay, and the Board’s institution decision is expected by August 14, 2025. Given the timing and complexity of the Parallel Litigation, it is improbable that Judge Albright would grant a stay even if the Petition is instituted.

Particularly, August 14, 2025, is after the *close* of fact discovery (July 7, 2025), and after the parties serve opening (July 11, 2025) and rebuttal (August 8, 2025) expert reports. *See* Ex. 2018. Accordingly, the Court will have “expended significant resources,” and would be unlikely to grant a stay. *See, e.g., Sonrai Memory Ltd. v. LG Elecs. Inc.*, No. 6:21-cv-00168-ADA, 2022 WL 2307475, at *3 (W.D. Tex. June 27, 2022) (denying stay when fact discovery opened two weeks before the institution decision).

Further, in the Parallel Litigation, PO asserted *eight patents* against Petitioner Phison. *See* Ex. 1082, ¶2. Phison filed IPR or PGR petitions against each of these patents. But the Board has already denied institution on two of those petitions—PGR2024-00047 and PGR2024-00048. *See* Exs. 2039, 2041. In circumstances such as these, it is even more unlikely that the Court would grant a stay. *See Smart Mobile*

Techs. LLC v. Apple Inc., No. 6:21-cv-00603-ADA, 2023 WL 5051374, at *6 (W.D. Tex. Aug. 8, 2023) (denying stay based on instituted IPRs when institution was not granted on all asserted patents).

Thus, Factor 1 weighs against institution.

B. Factor 2: The Board Would Likely Issue A Final Written Decision Eight Months After Trial

This factor weighs against institution because trial is scheduled to begin eight months before the projected final written decision. Should the Director not exercise her discretion to deny institution, the Board is expected to decide whether to institute by August 14, 2025. Accordingly, the projected statutory deadline for a final written decision would be August 14, 2026—*eight months after the December 15, 2025, trial date.* See Ex. 2018. Judge Albright is highly unlikely to move this trial date, as he has a practice of “not mov[ing] the trial date except in extreme situations.” Ex. 2021; see also *NXP USA*, PGR2022-00005, Paper 18 at 9 (weighing factor 2 in favor of discretionary denial when “the currently scheduled trial in the parallel proceeding is scheduled to begin over two months before our deadline to reach a final decision”); *Google LLC v. Cerence Operating Co.*, IPR2024-01465, 2025 WL 1182608, at *4 (P.T.A.B. Apr. 23, 2025) (weighing factor 2 in favor of discretionary denial when “the district court has set a trial date of October 6, 2025, which is almost seven months before the final written decision in this proceeding would be due in late April

2026” and “nothing in the...record indicates a trial in the District Court Litigation would not take place months before our deadline to reach a final decision”).

C. Factor 3: The Court And Parties Have Invested Heavily In The Parallel Litigation

This factor weighs against institution because the parties and the Court have invested and will continue to invest significant resources in the Parallel Litigation. The Board weighs “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.” *Fintiv*, IPR2020-00019, Paper 11 at 9.

By the time the Board decides whether to institute this IPR in August 2025, the parties will have completed *Markman* briefing (Nov. 22, 2024); briefed a motion to dismiss (which the Court resolved on Dec. 2, 2024); exchanged final infringement and invalidity contentions (Feb. 28, 2025); moved to amend those contentions (Mar. 27, 2025 and May 2, 2025); completed fact discovery (closes July 7, 2025); exchanged opening expert reports (July 11, 2025); and exchanged rebuttal expert reports (Aug. 8, 2025). *See* Exs. 2018, 2037, 2042. In addition, the parties will have completed extensive document production and numerous fact and expert witness depositions.

Furthermore, the Court will have held the *Markman* hearing and issued its constructions (Feb. 6, 2025) and ruled on numerous discovery disputes. *See* Exs. 2031 (Court’s preliminary claim constructions), 2032 (transcript for the February 6

Markman hearing, during which the Court adopted its preliminary constructions); *see also Fintiv*, Paper 11 at 10 (“[D]istrict court claim construction orders may indicate that the court and parties have invested sufficient time in the parallel proceeding to favor denial.”).

Thus, the Court and the parties have invested and will continue to invest significant resources in the Parallel Litigation and, accordingly, this factor weighs against institution. *See NXP USA*, PGR2022-00005, Paper 18 at 9-10 (weighing factor 3 in favor of discretionary denial where the *Markman* hearing and the service of final infringement and invalidity contentions occurred before the Board’s institution decision deadline); *Motorola Sols., Inc. v. Stellar, LLC*, IPR2024-01205, 2025 WL 947070, at *1 (P.T.A.B. Mar. 28, 2025) (Order Granting Director Review, Vacating the Decision Granting Institution, and Denying Institution of *Inter Partes* Review) (finding “factor 3 strongly favors discretionary denial” when “the parties had served extensive infringement and invalidity contentions, served opening and rebuttal expert reports, filed claim construction briefs, and conducted several depositions” and “[t]he court also had held a claim construction hearing and construed the disputed claim terms”).

D. Factor 4: There Is Significant Overlap Between Issues Raised In This Petition And In The Parallel Litigation

This factor weighs against institution given the significant overlap between the Petition and the Parallel Litigation. The Parallel Litigation involves the same 240 Patent as this proceeding, along with seven additional patents. *See* Ex. 1082, ¶2.

Further, the Parallel Litigation already involves the three grounds raised in the Petition. Specifically, the Parallel Litigation involves the same three reference that Petitioner relies on in its single-reference obviousness grounds—Gavens (Ex. 1045), Moshayedi (Ex. 1043), and Sutardja (Ex. 1042). Gavens, Moshayedi, and Sutardja comprise *three of the four primary references* identified for the 240 Patent in Phison’s Invalidity Contentions. *See* Ex. 2043, 5-6 (also identifying “Duann” as a primary reference). And Phison charted these references to the claims. *See id.* (referencing charts included in “Exhibit C1” (relying on Gavens), “Exhibit C2” (relying on Sutardja), and “Exhibit C3” (relying on Moshayedi)).

Despite this significant overlap, ***Petitioner has not filed a Sotera stipulation or any other stipulation*** to mitigate concerns of duplicative efforts between the District Court and the Board, as well as any concerns regarding potentially conflicting decisions. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 19 (P.T.A.B. Dec. 1, 2020). If this Petition is instituted, Petitioner may rely on the same grounds both before the Board and in the Parallel Litigation, including in its expert report and at trial.

Thus, this factor weighs heavily against institution. *See NXP USA*, PGR2022-00005, Paper 18 at 11-12 (weighing factor 4 in favor of discretionary denial when the petitioner “d[id] not offer a stipulation” and “assert[ed] the same prior art in both proceedings”).

E. Factor 5: The Parties Are The Same In Both Proceedings

The Petitioner and the defendant in the Parallel Litigation “are the same party,” so “this factor weighs in favor of discretionary denial.” *NXP USA*, PGR2022-00005, Paper 18 at 12.

F. Factor 6: Other Circumstances Weigh Against Institution

1. The Merits Of The Petition Are Weak

Each of Petitioner’s single-reference obviousness grounds are weak on the merits. As outlined below, clear flaws in Petitioner’s cursory presentation of each of its grounds underscore the Petition’s weak merits.²

² Patent Owner filed a “Preliminary Response On The Merits And Other Non-Discretionary Considerations” on May 14, 2025, which provides a more detailed and technical explanation of the Petition’s numerous substantive weaknesses. Patent Owner’s arguments here focus on threshold deficiencies in Petitioner’s grounds that are alone dispositive—Petitioner’s failure to explain its grounds with particularly, and failure to clearly map the cited prior to the claims.

Ground 1, Gavens (Petition, 21-34): Petitioner’s Gavens ground fails to provide a coherent ground for limitation [1e] (among other limitations, as described in PO’s concurrently filed Merits brief). *See* Petition, 28-30 (including Petitioner’s ground for [1e]).

Specifically, limitation [1e] requires a “**transfer**” of the contents of “counted blocks.” Attempting to show this “transfer,” Petitioner merely asserts that Gavens discloses that “when those blocks exceeding the threshold (receiving the most frequent writes) are written with data that fails a data integrity test, **they are rewritten (transferred) to SLC.**” Petition, 29. However, Petitioner provides no supporting evidence for this assertion. While citing Gavens’s Figure 19, including Gavens at 20:21-29, Petitioner fails to show that this passage addresses data transfer in any capacity. *Contra* Ex. 1045, 20:21-29 (stating only that “error management for the rest of the life of the memory” is “enable[d]” when a “memory block” fails the data integrity test).

Petitioner also cites paragraphs from its expert declaration and references that Gavens allegedly incorporates by reference, but these citations cannot correct the Petition’s lack of explanation and support. To start, Petitioner cannot cite its expert declaration (“Sechen ¶¶ 108 and 109”) as a replacement for including arguments in the Petition itself. Petition, 29; *see Acon Inc. v. Amo Dev., LLC*, IPR2021-00858, 2022 WL 17585777, at *16 (P.T.A.B. Dec. 12, 2022) (“arguments may not be

incorporated from an expert’s declaration wholesale into the [p]etition”). Further, Petitioner cites to Chen and Paley (which Gavens allegedly incorporates by reference) in an “*Also*” parenthetical, but Petitioner cannot cite disparate embodiments from those references without explaining how they are relevant to its ground and without providing the required obviousness analysis. Petition, 29; *see also Captioncall, LLC v. Ultratec, Inc.*, IPR2020-01215, 2021 WL 278381, at *7 (P.T.A.B. Jan. 27, 2021) (denying institution when petitioner relied on “distinct” embodiments from a reference and another reference that was incorporated by reference, explaining that “[a]nticipation requires all elements arranged as in the claim without the need to pick and choose elements from different disclosures”); *Nearmap US, Inc. v. Eagle View Technologies, Inc.*, IPR2024-00716, Paper 9, 18 (P.T.A.B. Oct. 9, 2024) (denying institution of *inter partes* review, explaining that “[t]he question before us is not whether we could come up with a way to understand how the asserted prior art could render the challenge claims unpatentable, but rather did Petitioner provide the arguments and evidence to show that the challenged claims are unpatentable.”).

Thus, “[i]t is the petitioner’s burden to present a clear argument,” and it has failed to do so. *Netflix, Inc. v. DivX, LLC*, 84 F.4th 1371, 1377 (Fed. Cir. 2023). “It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify ‘with particularity’ the ‘evidence that

supports the grounds for the challenge to each claim.” *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (quoting 35 U.S.C. § 312(a)(3)).

Finally, Petitioner vaguely references two references that are unrelated to Gavens—Sutardja (Ex. 1042) and Moshayedi (Ex. 1043)—as also “satisfying the ‘transfer’ controller function...limitation.” Petition, 29. However, the Petition’s analysis is plainly deficient. Petitioner cites teachings from these unrelated references but fails to provide the requisite obviousness analysis, including motivation to combine and reasonable expectation of success.³ Petitioner offers none of this, and its ground must be rejected. *See In re Stepan Co.*, 868 F.3d 1342, 1346 n.1 (Fed. Cir. 2017) (“Whether a rejection is based on combining disclosures from multiple references, combining multiple embodiments from a single reference, or selecting from large lists of elements in a single reference, there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful, otherwise a skilled artisan would not arrive at the claimed combination.”).

³ Petitioner does not even attempt to invoke obviousness, instead stating that “Gavens...in view of...Sutardja, Moshayedi...*disclose*...[1e].” Petition, 30.

Therefore, Petitioner's cursory Gavens ground, including its inadequate and deficient explanation for limitation [1e], is weak on the merits.

Ground 2, Moshayedí (Petition, 34-45): Petitioner's Moshayedí ground similarly lacks adequate explanation, and is weak on the merits.

First, limitation [1b] requires "at least one SLC non-volatile memory module *comprising a plurality of individually erasable blocks.*" Petitioner provides only a cursory, single-sentence analysis for this limitation, entirely omitting any discussion of the claimed "individually erasable blocks." Petition, 35. Thus, the Petition's deficient Ground 2 analysis should be rejected for this reason alone. *See Nearmap*, IPR2024-00716, Paper 9, 18.

Notwithstanding, for this limitation, Petitioner supports its Ground with a single citation to Moshayedí. Petition, 35. However, even that citation cannot save Petitioner's ground. Petitioner cites "Fig. 1(112)," but this figure says nothing about "individually erasable blocks" and, instead, depicts only SLC. Ex. 1043, Fig. 1; Ex. 2001, ¶109.

Finally, Petitioner cites two paragraphs of its expert declaration but fails to provide any analysis from those paragraphs in the Petition itself. Petition, 35 ("See [Sechen ¶¶ 170 and 171]"). Petitioner cannot simply cite its expert declaration while omitting arguments/analysis from the Petition regarding Petitioner's mapping of

prior art to claim language. 37 C.F.R. § 42.6(a)(3); *Acon Inc.*, IPR2021-00858, 2022 WL 17585777, at *16.

Second, Petitioner’s analysis for limitation [1c] is similarly deficient. Here, Petitioner fails to identify how Moshayedi discloses a “list of logical address ranges having a *minimum quanta of addresses*.” Petition, 35-36; Ex. 2001, ¶¶110-111.

Petitioner references several paragraphs from Moshayedi that generically relate to “a logical block address...mapped to a location within a physical block” (Petition, 36) but fails to correlate these teachings with the claim language, including the “minimum quanta of addresses.” Petition, 36 (citing Ex. 1043, ¶¶6, 36-39, 44). Petitioner cannot simply cite Moshayedi without explaining how it discloses what is claimed. *See DeSilva v. DiLeonardi*, 181 F.3d 865 (7th Cir. 1999) at 866-67.

Still, even when considered individually, these citations do not show that Moshayedi discloses or suggests the “minimum quanta of addresses.” Paragraphs 6 and 44 disclose logical-to-physical mapping but do not describe a minimum quanta of addresses. *See* Ex. 1043, ¶¶6 (“logical block address (‘LBA’)”), 44 (“assigning LBA to physical address”). Similarly, paragraphs 36-39 disclose a “controller architecture” and “virtual-to-physical mapping” but do not describe a minimum quanta of addresses. *See id.*; *see also Amazon.com, Inc., et al. v. Avago Technologies General IP (Singapore) PTE. LTD.*, IPR2017-01112, Paper 11, at 13 (P.T.A.B. Aug. 23, 2017) (“Petitioner is inviting us to assume the role of archeologist of the record,

which invitation we decline.”); *Netflix, Inc. v. DivX, LLC*, 84 F.4th 1371, 1379 (Fed. Cir. 2023) (“While the Board should review a petition holistically, it is not obligated to cobble together assertions from different sections of a petition or citations of various exhibits in order to infer every possible permutation of a petitioner’s argument.” (cleaned up)).

Accordingly, Petitioner did not meet its burden to map limitations [1b] and [1c] with particularity, and Petitioner’s ambiguous challenges are weak on the merits. *See* 35 U.S.C. § 312(a)(3).

Ground 3, Sutardja (Petition, 45-57): Petitioner’s Sutardja ground is similarly deficient. For example, for limitation [1e], Petitioner ambiguously references multiple embodiments from Sutardja without clarifying how these embodiments map to limitation [1e]. Petition, 51-54 (citing **Fig. 7A** and ¶146, as describing the “transfer directed to SLC...of the data of the most frequently written LBAs”), 52 (citing **Fig. 7C** and ¶149, as describing mapping based on “the number of write operations to [a] first block...during a predetermined time”), 52 (referring to **Fig. 7D** as a “degradation analysis branch” that “remaps (and subsequently writes) data mapped to a physical location found to exceed a degradation value”), 53 (citing **Fig. 7E** and ¶153, describing mapping based on whether “the wear level of...MLC...is greater than a predetermined threshold”).

The Petition ambiguously references the disclosure of each of these embodiments but does not clearly state how it is mapping them to the claims, including whether it is presenting these embodiments in the alternative or relying on some kind of combination of all four (for which Petitioner did not provide the required obviousness analysis). *See* Petition, 51-54. This ground is plainly deficient on this basis alone. *See also GN Resound A/S v. Oticon A/S*, IPR2015-00103, Paper 13, 6 (P.T.A.B. Jun. 18, 2015) (denying institution on certain grounds, explaining that “[e]ssentially, Petitioner requires the Board to search through the cited portions of [the prior art] to map prior art disclosure with claim elements. It is a requirement of a Petition to align the evidence and arguments with the various limitations of the challenged claims”); *A.C. Dispensing Equip. Inc. v. Prince Castle LLC*, IPR2014-00511, Paper 6 at 5-6 (P.T.A.B. Sept. 10, 2014) (“Petitioner should not expect the Board to search the record and piece together the evidence necessary to support Petitioner’s arguments.”); *Masimo Corp. v. Apple Inc.*, IPR2023-00745, Paper 44 (final written decision), 36 (P.T.A.B. Oct. 15, 2024) (determining that the challenged claim is not unpatentable, explaining: “In essence, Petitioner invites the Board to piece together a single theory that meets all claim elements from these disparate theories that each require distinct structures....”) (citing *Amazon.com, Inc., et al. v.*

Avago Technologies General IP (Singapore) PTE. LTD., IPR2017-01112, Paper 11, at 13 (P.T.A.B. Aug. 23, 2017)).⁴

Accordingly, the Petition’s weak merits weigh heavily against institution. *See also* Ex. 2044, 2 (stating that “The strength of the unpatentability challenge” should be considered in determining whether to discretionarily deny a petition).

2. The Petition Relies Heavily On Expert Testimony

“The extent of the petition’s reliance on expert testimony” should also be considered in assessing whether to exercise discretion to deny institution. Ex. 2044, 2. This Petition is heavily reliant on expert testimony. Petitioner’s obviousness grounds—based on Gavens, Moshayedi, and Sutardja, respectively, “*in view of a POSITA’s knowledge of NAND flash technology*” (Petition, 17)—relies on expert testimony to establish what they contend would have been the relevant knowledge of a POSA, including how a POSA would have artificially reconstructed these references to fit the language of the Challenged Claims. For example, for limitation [1e] in its Gavens ground, Petitioner relies on its expert to make the generalized assertion that “the concept of dynamically allocating...data...*was well known.*”

⁴ In PO’s concurrently filed Merits brief, PO further explains—from a detailed technical standpoint—how, even when considered individually, each embodiment of Sutardja that Petitioner cites does not disclose the requirements of limitation [1e].

Petition, 29. Petitioner’s substantial reliance on expert testimony underscores that these arguments are more appropriately resolved in the Parallel Litigation—further supporting discretionary denial.

3. The Challenged Patent Belongs To A Family Of Patents With Settled Expectations

The “[s]ettled expectations of the parties, such as the length of time the claims have been in force” should also be considered in assessing whether to exercise discretion to deny institution. Ex. 2044, 2. Here, the first four Vervain Patents—including the 240 Patent challenged here—were successfully litigated in the Prior Litigation. *See supra* Sections II.A and II.D. This family of patents, which claims priority to 2011, embodies the inventions of a single inventor, Dr. G. R. Mohan Rao. The longstanding nature of these patents and the settled expectations surrounding Dr. Rao’s inventions further support discretionary denial.

4. Instituting This Petition Would Be An Inefficient Use Of The Board’s Resources

Rather than presenting a limited number of well-supported grounds, the Petition asserts three cursory grounds of questionable merit. If instituted, the Board would be obligated to evaluate and issue a final written decision on each of these deficient grounds, requiring an unnecessary expenditure of resources. The Petition’s presentation of three weak, single-reference obviousness challenges thus further supports discretionary denial under 35 U.S.C. §314(a). *See Chevron Oronite Co. v.*

Infineum USA L.P., IPR2018-00923, Paper 9 at 10–11 (P.T.A.B. Nov. 7, 2018) (informative); *Deeper, UAB v. Vexilar, Inc.*, IPR2018-01310, Paper 7 at 41–43 (P.T.A.B. Jan. 24, 2019) (informative).

5. Instituting This Petition Would Unnecessarily Burden The Board’s Resources

Finally, Petitioner filed eight separate petitions challenging the eight patents asserted in the Parallel Litigation. The Board has already denied institution of two of those petitions. *See* Exs. 2039, 2041. As a result, only six petitions remain pending. The purpose of discretionary denial is to “allay[] concerns about inefficiency and duplication of efforts.” *Fintiv*, Paper 11 at 6. Instituting six separate PGRs/IPRs to address only some of the issues currently being addressed in the single, mature district court case would be inefficient and an unnecessary expenditure of the Board’s resources.

This inefficiency is further illustrated by the mismatch in scope: while Petitioner challenged 10 claims in this Petition, PO is currently asserting only 4 claims from the Challenged Patent in the Parallel Litigation. And the number of asserted claims may decrease when the parties “meet and confer...to discuss significantly narrowing the number of claims asserted” by June 6, 2025. Ex. 2018. Requiring the Board to adjudicate at least six additional claims not asserted in the Parallel Litigation would impose an unnecessary burden—especially given that the validity of the asserted claims will already be resolved at trial, as explained above.

Thus, all *Fintiv* factors—including multiple additional circumstances—weigh against institution, and the Director should exercise her discretion to deny institution under 35 U.S.C. § 314(a).

IV. THE DIRECTOR SHOULD EXERCISE HER DISCRETION AND DENY INSTITUTION OF THE MOSHAYEDI GROUND (GROUND 2) UNDER 35 U.S.C. § 325(d)

The Board has discretion to deny institution when “the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). To determine whether a petition should be denied under 35 U.S.C. § 325(d), the Board applies the following two-part framework:

- (1) whether the same or substantially same art previously was presented to the Office or whether the same or substantially the same arguments were presented to the Office; and
- (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of the challenged claims.

Advanced Bionics, LLC v. Med-El Electromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (P.T.A.B. Feb. 13, 2020) (precedential). The *Advanced Bionics* framework considers the non-exclusive factors set forth in *Becton, Dickinson*. *Id.* at 7 (citing *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (P.T.A.B. Dec. 15, 2017)).

Here, both parts of the *Advanced Bionics* framework are met for Petitioner’s Moshayedi ground (ground 2). Moshayedi—Petitioner’s primary reference in this single-reference §103 ground—is not new to the Patent Office. And Petitioner does not even attempt to show that the Office “erred in a manner material to...patentability.” *Id.* Petitioner never mentions §325(d). Thus, this ground should be discretionarily denied institution under 35 U.S.C. §325(d).

A. *Advanced Bionics* Part I – The Examiner Considered The Same Prior Art And Substantially The Same Arguments During Prosecution

During prosecution of the Challenged Patent, the Applicant submitted Moshayedi (Ex. 1043) to the Examiner, who certified its review. *See* Ex. 1001, Cover at 2 (listing U.S. Patent App. Pub. No. 2009/0327591). Therefore, Part I of the *Advanced Bionics* framework is met. *See, e.g., Advance Medical Designs, Inc. v. Corbin Clinical Resources, LLC*, PGR2023-00041, Paper 12 at 24-25 (P.T.A.B. Jan. 23, 2024) (finding Part I met when a prior art reference was “submitted in an IDS”). But this is not a situation where Moshayedi was cited only in an IDS. The Examiner *specifically cited Moshayedi* during prosecution of the 240 Patent. *See* Ex. 1001, Cover at 2 (listing Moshayedi with a “*”), 3 (nothing that the “*” symbol denotes references that were “cited by examiner”).

Thus, Petitioner’s Moshayedi ground relies on prior art that was already presented to the Office, and *Advanced Bionics* Part I is met.

B. *Advanced Bionics* Part II – The Examiner Made No Material Error

Petitioner fails to address the clear issues under § 325(d), likely because it cannot rebut them. *See Nexus Pharmaceuticals, LLC v. Exela Pharma Sciences, LLC*, PGR2024-00016, Paper 9 at 27 (P.T.A.B. Aug. 8, 2024) (finding petitioner did “not sufficiently establish error, let alone material error by the Office” when “neither the [p]etition nor the [r]epley addresse[d]” the issue). Still, the Examiner made no material error during prosecution of the Challenged Patent. *See* Ex. 2001, ¶¶108-125 (providing a detailed description of the deficiencies in Petitioner’s Moshayed ground).

Therefore, both parts of the *Advanced Bionics* framework are met, and the Director should exercise her discretion to deny institution of Petitioner’s Moshayed ground (ground 2) under 35 U.S.C. § 325(d).

V. CONCLUSION

For the foregoing reasons, the Director should exercise her discretion to deny institution.

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Respectfully submitted,

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), Patent Owner hereby certifies that the word count for the foregoing **PATENT OWNER'S REQUEST FOR DISCRETIONARY DENIAL OF INSTITUTION** is 5,775 words, which is within the limit set in 37 C.F.R. §42.24(b)(1). This word count does not include the table of contents, table of authorities, exhibit list, certificate of word count, and certificate of service. This word count was prepared using Microsoft Word.

Date: May 14, 2025

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CERTIFICATE OF SERVICE

I hereby certify, in accordance with 37 C.F.R. § 42.205, that the foregoing
**PATENT OWNER'S REQUEST FOR DISCRETIONARY DENIAL OF
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