

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SANDISK TECHNOLOGIES, INC. AND
WESTERN DIGITAL TECHNOLOGIES, INC.,
Petitioners

v.

POLARIS POWERLED TECHNOLOGIES, LLC,
Patent Owner

Case IPR2025-00517
U.S. Patent No. 8,554,968

**PATENT OWNER POLARIS POWERLED TECHNOLOGIES, LLC'S
BRIEF ON DISCRETIONARY DENIAL**

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PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	List of Docket Entries, <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 1-24-cv-00101 (W.D. Tex.)
2002	List of Docket Entries, <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 2-24-cv-02864 (C.D. Cal)
2003	List of Docket Entries, <i>Micron Technology Inc. et al. v. Polaris PowerLED Techs., LLC</i> , 1-25-cv-00073 (D. Idaho)
2004	Scheduling and Case Management Order, <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 2-24-cv-02864 (C.D. Cal Jan. 27, 2025), ECF No. 54
2005	Western Digital's Notice of Motion and Motion to Stay Action Pending <i>Inter Partes</i> Review, <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 2-24-cv-02864 (C.D. Cal Feb. 3, 2025), ECF No. 58
2006	Minute Order, <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 2-24-cv-02864 (C.D. Cal Feb 3, 2025), ECF No. 59
2007	Plaintiff's Opposition to Motion to Stay, <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 2-24-cv-02864 (C.D. Cal Feb. 10, 2025), ECF No. 60
2008	Patent L.R. 3-3 and 3-4 Invalidity Disclosures of Western Digital Defendants, <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 2-24-cv-02864 (C.D. Cal), ECF No. 60-3 and Appendices A-C of the Invalidity Disclosures
2009	Defendants' Identification of Claim Terms for Construction, <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 2-24-cv-02864 (C.D. Cal), ECF No. 60-4
2010	Stipulated Protective Order, <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 2-24-cv-02864 (C.D. Cal), ECF No. 61

Exhibit No.	Description
2011	Western Digital's Reply in Support of Motion to Stay Action Pending <i>Inter Partes</i> Review, <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 2-24-cv-02864 (C.D. Cal Feb. 14, 2025), ECF No. 62
2012	USPTO Appeal Statistics (Mar. 31, 2025), <i>available at</i> https://www.uspto.gov/patents/ptab/statistics
2013	Patent Trial & Appeal Board (PTAB) Dashboard, <i>available at</i> https://www.uspto.gov/dashboard/ptab/
2014	Press Release: Sandisk Celebrates Nasdaq Listing After Completing Separation from Western Digital (Feb. 24, 2025), <i>available at</i> https://shop.sandisk.com/company/newsroom/press-releases/2025/sandisk-celebrates-nasdaq-listing-after-completing-separation
2015	U.S. Provisional Patent Application No. 61/374,242
2016	Redline Comparison Between U.S. Patent Application No. 12/756,477 and U.S. Patent Application No. 12/537,733
2017	U.S. Patent No. 10,296,249 to Benisty
2018	IDS Submitted in U.S. Application No. 15/585,808
2019	NVM Express, Revision 1.0 (Mar. 1, 2011), <i>available at</i> https://web.archive.org/web/20110305032748/www.intel.com/standards/nvmhci
2020	U.S. Patent No. 7,620,784 to Panabaker
2021	U.S. Patent No. 8,244,946 to Gupta <i>et al.</i>
2022	U.S. Patent Application Publication No. 2008/0320214 to Ma <i>et al.</i>
2023	U.S. Patent Application Publication No. 2010/0185808 to Yu <i>et al.</i>
2024	Defendants' Identification of Claim Terms for Construction (Apr. 18, 2025), <i>Polaris PowerLED Techs., LLC v. Western Digital Corp. et al.</i> , 2-24-cv-02864 (C.D. Cal. Feb. 10, 2025)

I. INTRODUCTION

The Board should exercise its discretion under 35 U.S.C. § 314(a) and *Fintiv* to deny institution of this *inter partes* review (IPR) because the same parties are in advanced stages of litigating the validity of this patent in district court. The district court jury trial is scheduled for June 16, 2026—more than two months *before* the Board’s projected deadline for issuing a final written decision. Litigating the same issues at the Board would therefore be duplicative and contrary to the intent of IPRs for “providing a more efficient system for challenging patents” and “reducing unwarranted litigation costs.” H.R. Rep. No. 112-98 at 39-40 (2011); *see also NHK Spring Co. Ltd. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 19-20 (P.T.A.B. Sept. 12, 2018) (precedential).

Other considerations also strongly favor discretionary denial. For example, the record strongly indicates that Petitioners’ primary reference for all three grounds in this IPR, Borchers, is likely later in time than the priority date of the ’968 patent. Borchers has a date of April 8, 2010. But the provisional patent application of the ’968 patent (EX2015), filed August 16, 2010, attaches extensive data sheets and technical product documentation, including materials from earlier than April 8, 2010. This demonstrates that the inventors had already fully developed their R&D program and were working toward semiconductors that practiced the ’968 patent’s claimed inventions. The dispute surrounding whether

Borchers is eligible as prior art or is antedated will require substantial discovery—including third-party discovery. The district court case is better positioned to handle this fact-intensive discovery.

Additionally, Petitioners have not agreed to a *Sotera* stipulation or identified any reason why instituting an IPR would reduce the number of issues litigated in district court. Since the district court trial is already scheduled and instituting an IPR would not improve judicial efficiencies, the Board should deny institution and focus its limited resources on other pending cases at the Board.

Compounding the case for denial, the Board is also on firm ground to deny institution under 35 U.S.C. § 325(d). The Petition's Grounds of Unpatentability rely on the same primary reference (Borchers), substantially the same art (the PCI standards), and art that is cumulative and insignificant (Serebrin) to the art considered during prosecution. And Petitioners have not established that the Office erred in a manner material to the patentability of the challenged claims. For this additional reason, the Board should exercise its discretion and *deny* institution.

II. THE BOARD SHOULD DENY INSTITUTION UNDER § 314(A).

A. The *Fintiv* factors favor discretionary denial.

When the patent owner raises an argument for discretionary denial due to an earlier trial date in a co-pending litigation, the Board weighs the following factors:

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.

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 5-6 (P.T.A.B. Mar. 20, 2020) (precedential) ("*Fintiv*"). These factors, when considered as a whole, support *denying* institution. Factor 1 is neutral, factors 2-6 all weigh in favor of denial, and no factor weighs against exercising the Board's discretion to deny institution.

1. Factor 1 is, at worst, neutral because there is no evidence a stay order will be granted in the district court.

Under the first factor, if the district court stays the case or provides guidance that it will stay the case and await the Board's final resolution of the patentability issues, this fact usually weighs against exercising authority to deny institution. *Fintiv*, 7. However, here, the district court has not provided such guidance and issued a scheduling order to continue through trial. EX2004.

Actions in the district court indicate that a stay is *not* imminent because the case is moving faster than initially scheduled. On January 27, 2025, the district court issued its scheduling and case management order, which set the deadlines to

file infringement contentions and invalidity contentions as February 18, 2025, and April 4, 2025, respectively. EX2004, 26. After Western Digital filed a motion to stay the case (EX2005), the parties decided to advance the case by jointly stipulating to serve, before they were due, amended infringement and invalidity contentions. EX2006.

The amended infringement and invalidity contentions were served early to resolve a discovery dispute over the scope of accused products. Polaris's initial infringement contentions, served in October 2024, accused all Western Digital and SanDisk solid-state drive products from 2018 onward supporting NVMe, among other features, and included a list of exemplar product lines. Western Digital challenged the sufficiency of these contentions, arguing they lacked adequate detail for products beyond WD Black-branded SSDs, and consequently limited its discovery production to only those SSDs. To break this impasse and advance discovery on the full scope of accused products, Polaris prepared and sent proposed amended infringement contentions to Western Digital. These amended contentions included significantly expanded claim charts, reflecting a substantial increase in detail about exemplary SSD product lines. Polaris maintained that its initial contentions were sufficient and compliant with applicable rules, and the amended contentions were offered to address Western Digital's concerns and resolve the dispute amicably. Western Digital acknowledged that the proposed

amended contentions addressed its concerns about detail but conditioned its agreement to Polaris' service of these contentions on Polaris allowing Western Digital to serve amended invalidity contentions. Western Digital claimed its December 2024 invalidity contentions inadvertently omitted certain details and sought to amend them. After negotiations, the parties reached an agreement and submitted a stipulation to the Court on February 3, 2025. That same day, the Court approved the stipulation, permitting both Polaris' amended infringement contentions and Western Digital's amended invalidity contentions. As ordered, the parties exchanged the amended infringement and invalidity contentions early.

The parties also exchanged proposed terms for construction earlier than required. EX2002 (deadline for exchange April 18, 2025); EX2009 (identification of claim terms served on January 24, 2025). Such proactive measures show that the district court case is advancing according to schedule (if not faster).

Western Digital's motion to stay the district court case (EX2005) is still pending, but there is no indication that the court will grant the motion. In fact, the district court canceled the hearing on the motion. EX2002, ECF No. 63. And the court has denied motions to stay in cases—like this one—where the defendant waited almost a year after it was served with a complaint to file an IPR petition. Order Denying Defendant Skechers U.S.A., Inc.'s Motion to Stay Pending *Inter Partes* Review at 2, *Nike, Inc. v. Skechers U.S.A., Inc.*, 2-19-cv-9230 (C.D. Cal

Dec. 30, 2020), ECF No. 82 (“Defendant waited almost a year after it was served with the Complaint to file its IPR petitions. Defendants’ delay in filing its IPR petitions also weighs against granting a stay.”) (citation omitted); Order Denying Defendant’s Motion to Stay at 5, *Jiaying Super Lighting Elec. Appliance Co., Ltd. et al. v. MaxLite, Inc.*, 2-19-cv-4047 (C.D. Cal June 17, 2020), ECF No. 73 (“Such a delay cuts against granting a stay because ‘courts expect accused infringers to evaluate whether to file, and then to file, IPR petitions as soon as possible after learning that a patent may be asserted against them.’”) (citation omitted).

Regardless of Western Digital’s arguments in favor of a stay (EX2005, EX2011), there is no specific evidence that the district court will stay the case. “In the absence of specific evidence, [the Board] will not attempt to predict how the district court in the related district court litigation will proceed because the court may determine whether or not to stay any individual case . . . based on a variety of circumstances and facts beyond [the Board’s] control and to which the Board is not privy.” *Sand Revolution II, LLC v. Continental Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 24 at 7 (P.T.A.B. June 16, 2020) (informative). The first *Fintiv* factor is therefore, at worst, neutral. *Id.*; *Fintiv*, 6-9.

2. Factor 2 favors discretionary denial because the district court’s trial date is scheduled to occur before the projected final written decision.

The second factor weighs in favor of denying institution because the district

court’s scheduled trial date is before the Board’s projected statutory deadline. *See Fintiv*, 9. The district court scheduled trial for June 16, 2026. EX2004, 25. This trial date is *before* the Board’s projected final written decision. Polaris’s POPR is due May 27, 2025.¹ An institution decision is then due August 27, 2025. 35 U.S.C. § 314(b). If instituted, that timeline would make the final written decision due August 27, 2026—more than two months *after* the district court’s trial date. 35 U.S.C. § 316(a)(11). “If the court’s trial date is earlier than the projected statutory deadline, the Board generally has weighed this fact in favor of exercising authority to deny institution” *Fintiv*, 9. In *Fintiv*, a scheduled district court trial date two months before the projected final written decision—a similar timeframe—weighed in favor of discretionary denial. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 13 (P.T.A.B. May 13, 2020) (informative) (“*Fintiv II*”).

Petitioners’ statistical-based argument for a 2027 trial date is no longer relevant. In the petition, Petitioners projected a trial date in January 2027 based on the median time-to-trial for civil cases in the Central District of California. Pet., 88 n.3 (citing EX1012). But after Petitioners filed the petition, the court scheduled

¹ The POPR is due three months after the February 26th Notice of Filing Date. 37 C.F.R. § 42.107(b). May 26th is a Federal holiday, which makes the POPR due the next business day. 37 C.F.R. § 1.7(a).

trial for June 16, 2026. EX2004, 25. Nothing in the district court record indicates that the court intends to deviate from this schedule. To the contrary, the court stated that this date was “firm.” EX2004, 1.

The second *Fintiv* factor therefore weighs in favor of discretionary denial as it did in *Fintiv*. *Fintiv*, 9; *Fintiv II*, 13.

3. Factor 3 favors denial because the parties have already invested substantial resources in the parallel proceedings.

Under the third *Fintiv* factor, “[t]he Board also has considered 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*, 9 (emphasis added). The deadline for issuing an institution decision is August 27, 2025. *Supra* Section II.A.2. By this date, substantial work will have already been done, including final invalidity contentions, all discovery and briefing for claim construction, and the Markman hearing. This heavy investment by the parties and the district court favors denial of institution. *Fintiv*, 9-12.

Work Performed to Date:

- January 30, 2024: Polaris filed a complaint for patent infringement in the Western District of Texas. EX2001, ECF No. 1.
- April 9, 2024: Polaris re-filed the case in the Central District of California to resolve a threatened motion to transfer. EX2002, ECF No. 1. Polaris dismissed its Western District of Texas (W.D. Tex.) case on April 5, 2024, and refiled in the Central District of California (C.D. Cal.) on April 9, 2024, at Western Digital’s suggestion, to resolve a venue dispute and avoid related motion practice costs. Western Digital proposed a stipulated dismissal

without prejudice for transfer to C.D. Cal. because Western Digital argued that W.D. Tex. was an improper venue.

- June 21, 2024: Polaris filed an amended complaint. EX2002 at ECF No. 40. The complaint included claim charts detailing alleged infringement of claims 1-3, 6-11, and 14-18 of the '968 patent. *See* EX2002, ECF No. 40-4.
- October 2, 2024: Polaris served its first sets of requests for production and interrogatories. *See* EX2007, *22.
- October 2, 2024: Polaris served its initial infringement contentions and accompanying document production. *See* EX2007, *22. The initial infringement contentions again identified the asserted claims. EX2008, *3.
- June 5, 2024: Western Digital filed answers to the amended complaint. EX2002, ECF Nos. 43-45.
- November 1, 2024: Western Digital responded to requests for production. *See* EX2007, *22.
- November 22, 2024: Western Digital responded to interrogatories. *See* EX2007, *22.
- December 16, 2024: Western Digital served invalidity contentions and accompanying document production. EX2008. The contentions charted 16 references for the '968 patent, cited numerous other references, and cited product art from different companies. *Id.*, *53-59. The contentions also analyze the motivation to combine for different combinations. *Id.*, *57-64. They also provide contentions under §§ 101 and 112. *Id.*, *64-71. In total, the invalidity contentions comprise over 3,000 pages. *See* EX2007, *22.
- January 24, 2025: Western Digital identified terms for construction, including six terms for the '968 patent. EX2009.
- February 4, 2025: Polaris had served amended infringement contentions that identified the asserted claims again. *See* EX2007, *22.
- February 6, 2025: Western Digital served amended invalidity contentions. *See* EX2007, *22.
- February 11, 2025: The court ordered entry of the protective order. EX2010.

- April 18, 2025: Western Digital served Defendants' Identification of Claim Terms for Construction, which this time included seven terms for the '968 patent. EX2024, *2-3.

Additional Work To Be Completed Before the Institution Decision (EX2004, 26):

- May 9, 2025: Preliminary Claim Constructions and Extrinsic Evidence Due
- May 24, 2025: Damages Contentions Due
- June 3, 2025: Joint Claim Construction, Prehearing Statement, and Expert Reports on Claim Construction Due
- June 23, 2025: Responsive Damages Contentions Due
- July 3, 2025: Claim Construction Discovery Cutoff
- July 18, 2025: Claim Construction Opening Briefs Due
- July 23, 2025: Damages Contentions Meeting Deadline
- July 28, 2025: Deadline to Amend Pleadings or Add Parties
- August 1, 2025: Claim Construction Responsive Briefs Due
- August 8, 2025: Claim Construction Reply Briefs Due
- August 22, 2025: Markman Hearing

For the work scheduled between filing this brief and the deadline of the institution decision, the district court has stated that “[t]hese dates and requirements are firm.” EX2004, 1. Based on the level of investment and effort already expended on claim construction and invalidity contentions in the district court, this factor weighs in favor of discretionary denial. *Fintiv II*, 14.

Under *Fintiv* factor 3, the Board also considers whether the petitioner could

have filed the petition more expeditiously to avoid unnecessary investment by the parties and the court. *Fintiv*, 11. “[I]f the petitioner cannot explain the delay in filing its petition, these facts have favored denial.” *Fintiv*, 12; *Next Caller Inc. v. TRUSTID, Inc.*, IPR2019-00961, Paper 10 at 16 (P.T.A.B. Oct. 16, 2019) (weighing the petitioner’s unexplained delay in filing the petition in favor of denial and noting that had the petitioner filed the petition earlier, the PTAB proceeding may have resolved the issues before the district court).

Here, Petitioners could have filed the IPR petition well before substantial work started in the district court case. Western Digital Technologies, Inc. was first served with a complaint alleging infringement of the ’968 patent on January 30, 2024. EX2001 at ECF No. 1.² Polaris first identified the asserted claims on June 21, 2024, in its amended complaint, and then again on October 2, 2024, in its initial infringement contentions. *See* EX2002, ECF No. 40-4; EX2008, *3. So

² The litigation was originally filed in the Western District of Texas on January 30, 2024, as Case No. 1:24-cv-00101, but refiled in the Central District of California on April 9, 2024. The one-year time bar for filing an IPR petition is tied to the filing of the first case. *Click-To-Call Techs., LP v. Ingenio, Inc.*, *Yellowpages.Com, LLC*, 899 F.3d 1321, 1328 n.3 (Fed. Cir. 2018) (*en banc*), *vacated on other grounds*.

Western Digital first had notice of the asserted claims in June 2024. Rather than filing a petition in the early stages of the case after knowing the asserted claims, Petitioners waited *for about seven months* and filed the petition in the last possible week after substantial work ensued. Petitioners did not explain this lengthy delay in the Petition. This inexcusable delay makes factor 3 weigh even more in favor of denying institution. *Next Caller*, IPR2019-00961, Paper 10 at 16. It also makes a stay less likely. *Supra* Section II.A.1.

4. Factor 4 favors denial because there is substantial overlap between the IPR grounds and the invalidity contentions in the district court case.

The fourth *Fintiv* factor—overlap between issues raised in the petition and in the parallel proceeding—favors denying institution. “[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial.” *Fintiv*, 12. “Conversely, if the petition includes materially different grounds, arguments, and/or evidence than those presented in the district court, this fact has tended to weigh against exercising discretion to deny institution” *Id.*, 12-13.

Petitioners have relied on the same references in this IPR as the lead references in its invalidity contentions, showing that parallel proceedings would result in substantial overlap and duplicative work. The IPR grounds include four references: (1) U.S. Patent Application Pub. No. 2010/0262979 to Borchers *et al.*;

(2) PCI Local Bus Specification Revision 3.0; (3) PCI Express® 2.0 Base Specification Revision 0.9; and (4) U.S. Patent Application Pub. No. 2011/0197003 to Serebrin *et al.* Pet., 18-19. The first three claim charts in the invalidity contentions (C1-C3) rely on the same four references, as shown below.

Claim Charts in the Invalidity Contentions

Claim Chart	Reference
Chart C1	U.S. Pat. App. Pub. 2010/0262979 to Borchers <i>et al.</i>
Chart C2	PCI Local Bus Specification Revision 3.0
	PCI Express® 2.0 Base Specification Revision 0.9
Chart C3	U.S. Pat. App. Pub. 2011/0197003 to Serebrin <i>et al.</i>

Western Digital’s invalidity contentions rely on additional references (EX2008, *53-54), but “Petitioner’s assertion of additional invalidity contentions in the District Court is not relevant to the question of the degree of overlap for this factor.” *Fintiv II*, 15. “[B]ecause the identical claims are challenged based on the same prior art in both the Petition and in the District Court, this factor weighs in favor of discretionary denial in this case.” *Id.*

Western Digital has also not submitted any stipulation limiting the art that it can present at trial, which indicates that it intends to raise the same invalidity

positions in district court. *See Sand Revolution II*, IPR2019-01393, Paper 24 at 12 (“Petitioner’s stipulation, however, mitigates to some degree the concerns of duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions.”); *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (P.T.A.B. Dec. 1, 2020) (precedential as to II.A) (“such a broad stipulation better addresses concerns of duplicative efforts and potentially conflicting decisions in a much more substantial way.”). Even if Western Digital were to submit a stipulation, it is too late—the Board’s discretionary panels should consider stipulations only if they are filed with sufficient time for a patent owner to address the impact of the stipulation in its discretionary denial brief. *See* FAQs for Interim Process for PTAB Workload Management, FAQ14; PTAB Boardside Chat on Interim Process for PTAB Workload Management (Apr. 17, 2025) (petitioners “*must*” file a stipulation within one month of the notice of filing date for consideration). Petitioners have had ample time to file a stipulation and have chosen not to. Factor 4 weighs in favor of denial on this basis alone.

Factor 4 also weighs in favor of denial because Western Digital relies on system prior art in its invalidity contentions, which prevents this case from being a “true alternative” to the district court proceeding. *Cf. Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19 at 3-4 (P.T.A.B. Mar. 28, 2025). In *Motorola*, the Director denied institution under 35 U.S.C. § 314(a) because

“Petitioner’s invalidity arguments in the district court are more expansive and include combinations of the prior art asserted in these proceedings with unpublished system prior art” *Id.*, 4.³ Similar here, Western Digital’s invalidity contentions include combinations of the asserted art with system prior art. *See* EX2008, *54-56 (relying on system prior art from numerous companies). For example, Western Digital has alleged invalidity based on Borchers and “Products that practice PCI Local Bus Specification Revision 3.0 or PCI Express® 2.0 Base Specification revision 0.9.” *Id.*, *56. Accordingly, this IPR would not be a “true alternative” to the district court case but instead litigate the same or (at best) substantially similar invalidity grounds.

The risk of duplicative litigation is even higher here because Western Digital Corporation is not a named petitioner, RPI, or privy, and may still try to raise the identical invalidity positions in the district court case. Petitioners appear to have strategically omitted the defendant Western Digital Corporation—the parent

³ In *Motorola*, the Director suggested that the petitioner’s stipulation “is not likely to moot” a combination of prior art asserted in the IPR proceeding and system prior art. *Motorola*, IPR2024-01205, Paper 19 at 4. Patent Owner takes no position whether a *Sotera* stipulation is not likely to moot such a combination of prior art. Regardless, Petitioners have not offered such stipulations here.

corporation of Western Digital Technologies, Inc.⁴—from the petition to evade estoppels.⁵ When Polaris raised this issue in briefing in the district court case (EX2007, *16), Western Digital Corporation tried to cure the issue by agreeing to estoppels. EX2011, *5. But it did so conditionally, stating: “[S]hould a stay be granted, Western Digital Corporation agrees to be bound under 35 U.S.C. § 315(e)(2).” *Id.* (emphasis added). If the court does not grant a stay, Western Digital Corporation could try to litigate the same grounds in district court.

For these reasons, the fourth *Fintiv* factor weighs strongly in favor of denying institution. *Fintiv*, 12. This inefficiency and duplication of efforts is

⁴ If the Board determines that Western Digital Corporation is an unnamed real party in interest or privy of Petitioners, Petitioners’ gamesmanship favors denying institution. *See* 35 U.S.C. §§ 312(a)(2).

⁵ Estoppels under 35 U.S.C. § 315(e)(2) apply only to a petitioner, real party in interest, or privy of the petitioner. Western Digital Corporation is not a petitioner, and is not listed as an RPI or privy of the petitioner. So Western Digital Corporation appears to be reserving an argument that it is not estopped in district court from raising the same grounds presented in the IPR, which further demonstrates that this IPR is not a “true alternative” to litigating validity before the district court.

precisely what the Board’s discretionary authority is intended to prevent. *NHK*

Spring, IPR2018-00752, Paper 8 at 19-20; H.R. Rep. No. 112-98 at 39-40 (2011).

And the Board should not permit Western Digital Corporation’s gamesmanship.

5. Factor 5 favors denial because the parties in the IPR overlap with the parties in the district court litigation.

Under the fifth *Fintiv* factor, “[i]f a petitioner is unrelated to a defendant in an earlier court proceeding, the Board has weighed this fact against exercising discretion to deny institution” *Fintiv*, 13-14. But here, both of the Petitioners are defendants or are related to a defendant in the co-pending litigation. Western Digital Technologies, Inc. is a defendant in the litigation. SanDisk Technologies, Inc. is a related party and real party in interest because it was owned by Western Digital as of the filing date of the petition. *See* EX2014 (announcing on February 24, 2025 its separation from Western Digital); Pet., 92 (“The real parties-in-interest (‘RPI’) are SanDisk Technologies, Inc. and Western Digital Technologies, Inc. (‘Petitioner’).”). Even if SanDisk were unrelated to a defendant, “if the issues are the same as, or substantially similar to, those already or about to be litigated, or other circumstances weigh against redoing the work of another tribunal, the Board may, nonetheless, exercise the authority to deny institution.” *Fintiv*, 14.

This factor therefore weighs in favor of denial. *Fintiv*, 13-14. And, if the Board deems SanDisk unrelated, it should still deny institution. *Id.*

6. Factor 6 favors denial, but Polaris will raise its merits arguments in the POPR.

Under the sixth *Fintiv* factor, the Board may consider other circumstances that impact the Board’s exercise of discretion, including the merits. *Fintiv*, 14-15. Polaris’s merits arguments will be in its Patent Owner Preliminary Response (POPR), which will explain why the grounds fundamentally misinterpret the invention and, as a result, fail to disclose numerous claim elements. The Director should consider these arguments when determining whether to exercise its discretion to deny institution under 35 U.S.C. § 314(a). *See* FAQs for Interim Process for PTAB Workload Management, FAQ8 (“The Director will receive each . . . POPR”), FAQ12 (“the Director will consider the merits in the merits briefing if the parties ask the Director to do so.”).

B. Other considerations also favor discretionary denial.

The Board’s Memorandum on the Interim Process for PTAB Workload Management presents additional considerations for discretionary denial, including:

Whether the PTAB or another forum has already adjudicated the validity or patentability of the challenged patent claims;

Whether there have been changes in the law or new judicial precedent issued since issuance of the claims that may affect patentability;

The strength of the unpatentability challenge;

The extent of the petition’s reliance on expert testimony;

Settled expectations of the parties, such as the length of time the claims have been in force;

Compelling economic, public health, or national security interests; and

Any other considerations bearing on the Director's discretion.

Interim Processes for PTAB Workload Management at 2 (Mar. 26, 2025). There are several considerations that weigh in favor of discretionary denial here.

1. The district court is better positioned for the discovery needed to antedate Borchers.

The record evidence strongly indicates that Borchers, the primary reference in all three grounds of unpatentability, was published later than the priority date of the '968 patent and would not be eligible as prior art.⁶ And establishing that the inventors conceived of the invention before Borchers' priority date and were diligent to a reduction to practice will be litigated fully in district court entailing fact-intensive discovery that is better suited for the district court, which has broader subpoena powers and broader protections for confidential information.

Petitioners allege that Borchers is prior art under (pre-AIA) 35 U.S.C. § 102(e) because it was filed on April 8, 2010, and published on October 14, 2010. Pet., 18. Petitioners do *not* allege that Borchers, as a continuation-in-part of an

⁶ Serebrin is also susceptible to antedating but appears only in Ground 3, so Polaris has focused on Borchers for the purposes of this discretionary denial brief.

earlier application, is entitled to an earlier filing date. *Id.*⁷ The earliest possible priority date of Borchers is therefore April 8, 2010.

The '968 patent's provisional application (U.S. Provisional Application No. 61/374,242) was filed on August 16, 2010. It contains 350 pages of specifications showing that the inventors had been developing a memory unit called the Delaware Non-Volatile Memory Host Controller Interface (NVMHCI) *before* Borchers' April 8, 2010 priority date. *See* EX2015.⁸ For example, the provisional application,

⁷ Borchers is not entitled to the August 7, 2009 filing date of U.S. Patent Application No. 12/537,733 (or its provisional applications) because substantial new matter was added when Borchers was filed as a CIP, including disclosure that Petitioners rely on (such as disclosure related to Figure 1C). *See* EX2016 (redline comparison between Borchers and U.S. Patent Application No. 12/537,733 to show new matter). Additionally, "[w]hen neither the PTO nor the Board has previously considered priority, there is simply no reason to presume that claims in a CIP application are entitled to the effective filing date of an earlier filed application." *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1305 (Fed. Cir. 2008).

⁸ Despite the provisional application including evidence showing that the inventors were working on the NVMHCI before Borchers' April 8, 2010 filing date, Petitioners did not file the provisional application with the Petition.

although filed on August 16, 2010, includes specifications dated March 5, 2010 describing, among other things, a queue structure, queue requests, and queue arbitration. EX2015, 5-10. It shows different aspects of source code and various algorithms, dated March 15, 2010. *See* EX2015, 71-83. And, dated as early as February 1, 2010, it includes details about interrupts and doorbell registers used with the eNVMHCI Flash Drive Controller. *See* EX2015, 317-350. In addition to this evidence that indicates a possible earlier invention date, Polaris has reason to believe that the inventors and other third parties have more documentation, including product specifications, source code, commit logs, emails, and other product-development documentation that supports an earlier invention date and diligence towards a reduction to practice.

Antedating a reference requires substantial discovery that is ill suited for PTAB proceedings, and is not the best use of PTAB resources. In prior cases, patent owners have submitted various types of extrinsic evidence. They have submitted inventor declarations. *E.g.*, *ATI Techs. ULC v. Iancu*, 920 F.3d 1362, 1370 (Fed. Cir. 2019); *Nintendo America Inc. v. iLife Techs., Inc.*, 717 F. App'x 996, 1000-03 (Fed. Cir. 2017) (non-precedential); *Medtronic, Inc. v. Teleflex Innovations S.A.R.L.*, IPR2020-00135, Paper 128 at 17-71 (P.T.A.B. June 17, 2021); *CallMiner, Inc. v. Mattersight Corp.*, IPR2020-00220, Paper 59 at 60-84 (P.T.A.B. June 16, 2021); *Arkema France v. Honeywell Int'l, Inc.*, IPR2015-

00915, Paper 56 at 12, 21, 30 (P.T.A.B. Oct. 20, 2016); *Sequenom, Inc. v. Board of Trustees of the Leland Stanford Junior University*, IPR2013-00390, Paper 45 at 5-15 (P.T.A.B. Nov. 25, 2014). They have produced source code and thousands of pages of commit logs. *E.g.*, *ATI Techs.*, 920 F.3d at 1370-71; *CallMiner*, IPR2020-00220, Paper 59 at 60-84. Expert witnesses were used to map technical documents, products, and/or source code to the patent claims. *E.g.*, *ATI Techs.*, 920 F.3d at 1371-72; *Medtronic*, IPR2020-00135, Paper 128 at 17-71; *CallMiner*, IPR2020-00220, Paper 59 at 60-84; *Arkema*, IPR2015-00915, Paper 56 at 13, 21, 30. Patent owners have also used declarations from additional fact witnesses to corroborate inventor testimony and authenticate documents. *E.g.*, *ATI Techs.*, 920 F.3d at 1371; *Nintendo*, 717 F. App'x at 1000-03; *Medtronic*, IPR2020-00135, Paper 128 at 17-71; *CallMiner*, IPR2020-00220, Paper 59 at 60-84; *Arkema*, IPR2015-00915, Paper 56 at 12, 21, 30; *Dynamic Drinkware LLC v. Nat'l Graphics, Inc.*, IPR2013-00131, Paper 42 at 8-9 (P.T.A.B. Sept. 12, 2014). Although the Board has procedures for parties to produce evidence, “discovery is limited” and “significantly different from the scope of discovery generally available under the Federal Rules of Civil Procedure.” *Garmin Int'l, Inc. v. Cuozzo Speed Techs. LLC*, IPR2012-00001, Paper 26 at 5 (P.T.A.B. Mar. 5, 2013) (precedential).

Given the scope of discovery likely needed to antedate Borchers, the district court would be better positioned to adjudicate this dispute. Federal district courts

have broad third-party subpoena powers to require third parties to “attend and testify; produce designated documents, electronically stored information, or tangible things in that person’s possession, custody, or control; or permit the inspection of premises.” FRCP, Rule 45. In contrast, the Board does not have the power to issue third-party subpoenas. Instead, the Board needs a district court to issue a subpoena. *See* 35 U.S.C. § 24. And even that power appears limited to testimony. *See id.* Here, the named inventors of the ’968 patent are not employees of Polaris, and other third parties likely have information needed to show conception, diligence, and/or reduction to practice. To ensure that all the evidence is in the record for the fact finder, the district court is better suited to adjudicate the discovery issues that will be associated with determining whether Borchers even qualifies as prior art.

Instituting trial in an IPR could also cause duplicative and/or unnecessary work related to discovery of confidential information required to antedate Borchers—especially third-party confidential information and source code. For example, the parties already negotiated terms for, and the district court has entered, a protective order. EX2010. That protective order is limited to the district court case and includes specific terms for source code, engineering and development documents, and other confidential business information. *Id.* In contrast, the default protective order in an IPR is far more limited and does not address additional

protections for the type of evidence that would need to get produced for antedating Borchers. *See* PTAB Consolidated Trial Practice Guide at 117-21 (Nov. 2019).

The parties would therefore need to re-negotiate terms for disclosure of confidential information in the IPR. If any required confidential information produced in the district court case is needed in the IPR (or vice versa), additional, non-substantive discovery-related efforts would be necessary to use the information in the other forum. *See* EX2010 at ¶7 (not permitting disclosure of confidential information to the PTAB); PTAB Consolidated Trial Practice Guide at 117-18 (Nov. 2019) (not permitting disclosure of confidential information to the district court).

The Board may also have to weigh in on disputes, which would expend Board resources that could otherwise be dedicated to other matters, such as *ex parte* appeals. This work can and should be avoided by denying institution and leaving the case to the district court, which already entered a protective order and a discovery schedule.

2. Instituting an IPR would not reduce the number of issues for the judge and jury to decide in the district court case.

The Board should also deny institution because the Petitioners have not explained how instituting an IPR would reduce the number of issues adjudicated by the district court judge and decided by a jury. For example, Petitioners have not represented or indicated that they would present fewer references or grounds to the

jury if an IPR is instituted. Instead, Western Digital’s extensive 3,000-page invalidity contentions show the opposite—that it will present as many grounds and references to the jury as the court allows. In the invalidity contentions, Western Digital charted sixteen references for the ’968 patent. EX2008, *53-54. It also served a list of approximately **300** different “References and Exemplary Combinations of References” for the ’968 patent that it reserves the right to present to the jury. EX2008 (Appendix C).

Western Digital also cited product art from numerous companies. EX2008, *54-56. Even if the four references in the petition were removed from the candidate pool (EX1005, EX1006, EX1007, EX1008), Western Digital would still have many references to combine with product art. *See* 35 U.S.C. § 315(e) (estoppels do not apply to product prior art). Instituting an IPR would therefore not reduce the number of references or grounds but instead merely shift which references and grounds the defendants decide to present to the jury.

Instituting an IPR would also not resolve other invalidity theories such as Western Digital’s arguments under 35 U.S.C. §§ 101 and 112. “Where the petitioner is relying on corresponding system art in a co-pending proceeding *and/or several other invalidity theories*, a stipulation may not be particularly meaningful because the efficiency gained by any AIA proceeding will be limited.” FAQs for Interim Process for PTAB Workload Management, FAQ14 (emphasis

added). Western Digital has raised, and is continuing to pursue, other invalidity theories under § 101 and § 112. EX2008, *64-71. Since these invalidity theories cannot be resolved in an IPR (35 U.S.C. § 311(b)), instituting an IPR would not resolve all the invalidity defenses at issue in the district court case and therefore not serve as a “true alternative” to the district court proceeding. *Motorola*, IPR2024-01205, Paper 19 at 3-4.

Instituting an IPR would also not reduce issues for claim construction. “Petitioner submits that, for the purposes of this [IPR] proceeding and the Grounds presented herein, *no claim term requires express construction*.” Pet., 17 (emphasis added). In contrast, the defendants in the district court have identified seven terms of the ’968 patent for construction. EX2024, *2-3. Since the grounds do not address any of the constructions the defendants intend to present in the district court, it is unclear how instituting an IPR would help the district court resolve these disputes. To the contrary, instituting an IPR may complicate claim construction issues because Petitioners appear to be taking inconsistent positions—plain and ordinary meaning for all terms in the IPR but more narrow constructions in the district court, including indefiniteness.

3. The expert declaration does not provide adequate, independent analysis that should accompany a petition.

When deciding whether to deny institution under § 314(a), the Board should also consider the substantial overlap between the petition and the expert

declaration. When the declaration “merely repeats, *verbatim*, the conclusory assertion for which it is offered to support” and “does not cite to any additional supporting evidence or provide any technical reasoning to support [the] statement,” the testimony is entitled to little weight. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (P.T.A.B. Aug. 24, 2022) (precedential); *see also* 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”).

Petitioners submitted a declaration by Dr. Paul Min to support the arguments in the petition. But like the expert declaration in *Xerox*, Dr. Min’s declaration merely repeats, *verbatim*, conclusory assertions in the petition. He does not provide additional technical reasoning to support many of the substantive statements.

Some examples of Dr. Min’s repeating the petition (or vice versa) are provided below. Dr. Min repeats, *verbatim*, the arguments from the petition. He even uses the same italicized, bolded, and underlined styling and repeats legal conclusions with verbiage lifted straight from the petition. When Dr. Min’s declaration varies, it merely provides longer or additional block quotations that are cited in the petition.

Petition	Dr. Min Declaration
The PCI Standards represent the background knowledge of a POSITA	The PCIe Standard represents the background knowledge of a POSITA

because their subject matter is critical for designing memory systems that are compliant with industry standards. Given that the PCIe standard is “an enhancement to the PCI architecture” which was “the most widely accepted and implemented expansion standard in the world” as of 2004 (Ex.1007, 21; Ex.1006, 15), POSITAs in the field of memory systems would have been familiar with their teachings and would have sought to design their memory systems in accordance with such standards. Ex.1003, ¶77. Pet., 25.	because its subject matter is critical for designing memory systems that are compliant with industry standards. Given that the PCIe standard is “an enhancement to the PCI architecture” which was “the most widely accepted and implemented expansion standard in the world” as of 2004 (PCIe, 21; PCI, 15), POSITAs in the field of memory systems would have been familiar with its teachings and would have sought to design their memory systems in accordance with such standards. Min Declaration, ¶77.
The language that comes after the phrase “<i>A nonvolatile memory controller for ...</i>” of the preamble [1.0] describes a purpose, or intended use, of the controller. To the extent that the preamble is deemed limiting, Borchers teaches the entire preamble. Pet., 26.	The language that comes after the phrase “<i>A nonvolatile memory controller for ...</i>” of the preamble [1.0] describes a purpose, or intended use, of the controller. To the extent that the preamble is deemed limiting, Borchers teaches the entire preamble Min Declaration, ¶78.
First, Borchers’ memory controller board 102 includes an interrupt processor 124 (“<i>interrupt manager</i>”). “The controller board 102 may include a controller 110.” Ex.1005, [0019]. “The controller 110 may include a command processor 122 and <u>an interrupt processor 124.</u>” Ex.1005, [0019]. Pet., 31.	First, Borchers’ memory controller board 102 includes an interrupt processor 124 (“<i>interrupt manager</i>”). <u>The controller board 102 may include a controller 110,</u> a DRAM 111, multiple channels 112, a power module 114, and a memory module 116. <u>The controller 110 may include</u> a command processor 122 and <u>an interrupt processor 124,</u> as

	well as other components, which are not shown. The memory boards 104 a and 104 b may include multiple flash memory chips 118 a and 118 b on each of the memory boards. The memory boards 104 a and 104 b also may include a memory device 120 a and 120 b, respectively. Borchers, [0019]. Min Declaration, ¶88.
First, Borchers' interrupt processor generates an “<i>interrupt vector state</i>” by maintaining a set of conditions that determine whether to send an interrupt signal. These set of conditions are maintained by various interrupt mechanisms including “a ResponseNew counter 280, a last response timer 282, group counters 284 and interrupt send logic 286.” Ex.1005, [0059]. Pet., 34-35.	First, Borchers' interrupt processor generates an “<i>interrupt vector state</i>” by maintaining a set of conditions that determine whether to send an interrupt signal. These set of conditions are maintained by various interrupt mechanisms including a ResponseNew counter 280, a last response timer 282, and group counters 284. Referring to FIG. 2, a block diagram of an exemplary interrupt processor 124 is illustrated. <u>The interrupt processor 124 may be configured to generate and send interrupts based on the interrupts mechanism</u> or mechanisms enabled by the host 106. <u>The interrupt processor 124 may include a ResponseNew counter 280, a last response timer 282, group counters 284 and interrupt</u>

	<u>send logic 286.</u> Borchers, [0059]. Min Declaration, ¶95.
Accordingly, because the interrupt mechanisms (e.g., timers and counters) (“<i>interrupt vector state</i>”) receive information (“<i>completion queue state</i>”) as to the status of the response queue (“<i>completion queue</i>”), Borchers’ interrupt mechanisms are generated “<i>based on</i>” that information. The interrupt mechanism information is <i>generated</i> when the timers or counters are updated. In some examples, the values of the timers or counters may be stored in a register. Indeed, a POSITA would have found it obvious for Borchers’ interrupt mechanism information to be stored in some type of memory such as a buffer, register, flag, or other form of storage. Ex.1003, ¶105. In other words, a POSITA would have recognized that the timers and counters of the interrupt mechanisms (“<i>interrupt vector state</i>”) are not merely transitory signals. Indeed, it was known for memory controllers and interrupt managers to use such registers or caches for storage. <i>See e.g.</i>, Ex.1008, Figs. 2 & 5, [0057], [0090]-[0091]; Ex.1009, Figs. 2 & 5, [0051], [0083], [0084]] (describing how an interrupt manager uses various forms of memory such as cache or registers to store state information). Accordingly, because Borchers’ interrupt processor receives and uses the response queue	Accordingly, because the interrupt mechanisms (“<i>interrupt vector state</i>”) receive information (“<i>completion queue state</i>”) as to the status of the response queue (“<i>completion queue</i>”), Borchers’ interrupt mechanisms are generated “<i>based on</i>” that information. The interrupt mechanism information is <i>generated</i> when the timers or counters are updated. In some examples, the values of the timers or counters may be stored in a register. Indeed, a POSITA would have found it obvious for Borchers’ interrupt mechanism information to be stored in some type of memory such as a buffer, register, flag, or other form of storage. In other words, a POSITA would have recognized that the timers and counters of the interrupt mechanisms (“<i>interrupt vector state</i>”) are not merely transitory signals. Indeed, it was known for memory controllers and interrupt managers to use such registers or caches for storage. <i>See e.g.</i>, Serebrin, Figs. 2 & 5, [0057], [0090]-[0091]; Serebrin Provisional, Figs. 2 & 5, [0051], [0083], [0084]] (describing how an interrupt manager uses various forms of memory such as cache or registers to store state information). Accordingly, because Borchers’ interrupt processor receives and uses the response queue status information

status information to update the interrupt mechanism timers and counters, Borchers' interrupt processor "<i>generate[s]</i>" an "<i>interrupt vector state</i>" as claimed. Pet., 39-40.	to update the interrupt mechanism timers and counters, Borchers' interrupt processor "<i>generate[s]</i>" an "<i>interrupt vector state</i>" as claimed. Min Declaration, ¶105.
Ground 1 shows how Borchers renders obvious each of the challenged claim limitations. Ground 1 further relies on the PCIe/PCI standards as evidence of the background knowledge of a POSITA. To the extent Patent Owner argues that the PCIe/PCI standards would not have been within the background knowledge of a POSITA, Ground 2 is presented to show that combining the teachings of the PCIe/PCI standards with Borchers would have been obvious to a POSITA. Ex.1003, ¶200. Pet., 76-77.	Ground 1 shows how Borchers renders obvious each of the challenged claim limitations. Ground 1 further relies on the PCIe/PCI standards as evidence of the background knowledge of a POSITA. To the extent Patent Owner argues that the PCIe/PCI standards would not have been within the background knowledge of a POSITA, Ground 2 is presented to show that combining the teachings of the PCIe/PCI standards with Borchers would have been obvious to a POSITA. Min Declaration, ¶200.
The claim analysis for Ground 2 is substantially the same as that of Ground 1. <i>See supra</i> X.C; Ex.1003, ¶214. Pet., 80.	The claim analysis for Ground 2 is substantially the same as that of Ground 1. <i>See supra</i> VIII.A. Min Declaration, ¶214.

Interestingly, Dr. Min's declaration follows the same formatting and verbiage as a declaration from a different expert (Dr. Lara Dolecek), which was filed by the same law firm. *SanDisk Technologies, Inc. et al. v. Polaris PowerLED Techs., LLC*, IPR2025-00515, Exhibit 1003 (P.T.A.B. Jan. 29, 2025).

Petitioners have also not established that Dr. Min has the requisite expertise specific to the memory controller interrupt techniques and PCI standards at issue in this IPR. Dr. Min's declaration explains that he has a background in electrical engineering (§§8, 13), has developed semiconductor devices and circuits (§9), and has expertise in networks and wireless cellular communications (§§10, 12, 17, 19, 20). One paragraph of the background section of his declaration refers to memory, but even this is silent with respect to the interrupt signaling at issue in this case:

Many of the integrated circuit chips I have developed incorporates high speed memory modules interacting with the memory controllers to perform various types of operations including pointer processing, pattern matching, tree-searching, and mathematical manipulation that require extremely fast read/write/bulk-transfer from/to the memory contents. For example, the latest generations of the switching fabric that I developed incorporated what is known in the switching field as the virtual output queue based on shared memory. In the switch fabric based on the virtual output queue based on shared memory architecture, there is no space-division switching, and rather, the switching is performed from the shared memory that takes in all of the incoming packets, which are manipulated by the pointers that organized the packets in the memory.

Min Declaration, §18.

Dr. Min also fails to provide any specifics about his background with the PCI standards. Dr. Min states that "I have personal experience using and referring

to the PCI standards throughout the 2000s” and that he “designed our systems to be compatible with the commonly used PCI standards.” Min Declaration, ¶205.

However, Dr. Min does not explain that he helped develop the standards. Nor does he identify which PCI-compatible products he developed or his role on those development teams. In fact, 144 individuals were instrumental in the development of the PCIe specification. EX1007, 631-32. Dr. Min was not one of them.

The lack of supporting evidence and additional technical reasoning from an expert who does not appear to have background experience specific to the interrupt signaling and PCI standards at issue in this case is yet another reason why the Board should deny institution. The standard for what qualifies as independent expert testimony and its use within IPRs should be higher; the declaration should not merely “cop[y], word-for-word, Petitioner’s conclusory assertions.” *Xerox*, IPR2022-00624, Paper 9 at 5. When it does, the Board should deny institution.

4. The ’968 patent issued over eleven years ago.

Under the interim process, the Director can consider “[s]ettled expectations of the parties, such as the length of time the claims have been in force” when deciding whether to exercise discretion to deny institution. Interim Processes for PTAB Workload Management at 2 (Mar. 26, 2025). Here, the ’968 patent issued on October 8, 2013—over eleven years ago. Had Petitioners objected to the issuance of the ’968 patent, they could have raised challenges over a decade ago.

35 U.S.C. §§ 302 (permitting any person at any time to file a request for reexamination), 321 (permitting post-grant review challenges up to 9-months after issuance). Western Digital could have also challenged the validity of the '968 patent after becoming aware of it at least as early as November 19, 2018. EX2018, 1 (Western Digital Technology identifying the '968 patent in an IDS on November 19, 2018); EX2017, (56) (citing the '968 patent).⁹ Instead, Petitioners waited many years to challenge the '968 patent—after Polaris relied on the issued claims in its complaint for patent infringement. This extended delay in challenging the claims also favors denying institution.

5. PTAB resources are better spent on *ex parte* appeals.

The Board should also deny institution because its limited resources are better spent on the growing backlog of *ex parte* appeals. In 35 U.S.C. § 6(b)(1), the Board is tasked with “review[ing] adverse decisions of examiners upon applications for patent pursuant to section 134(a).” Congress also tasked the Board with reviewing appeals of reexaminations, derivation proceedings, IPRs, and PGRs. 35 U.S.C. § 6(b)(2)-(4). But current Office policy is to focus on *ex parte*

⁹ The '968 patent was also cited during the prosecution of other Western Digital Technology patents, including at least U.S. Patent Nos. 10,452,278; 10,466,903; 10,509,569; 10,719,267; and 10,725,835.

appeals: “To ensure that the PTAB continues to meet its statutory obligations as to *ex parte* appeals, while continuing to maintain its capacity to conduct AIA proceedings, the Director will exercise her discretion on institution of AIA proceedings” Interim Processes for PTAB Workload Management at 1 (Mar. 26, 2025). The Board should exercise that discretion here because the pendency of *ex parte* appeals has increased (EX2012, 7), nearly a quarter of *ex parte* appeals have been pending more than eleven months (EX2013), and the backlog is growing month-over-month in almost all technology centers (EX2012, 4).

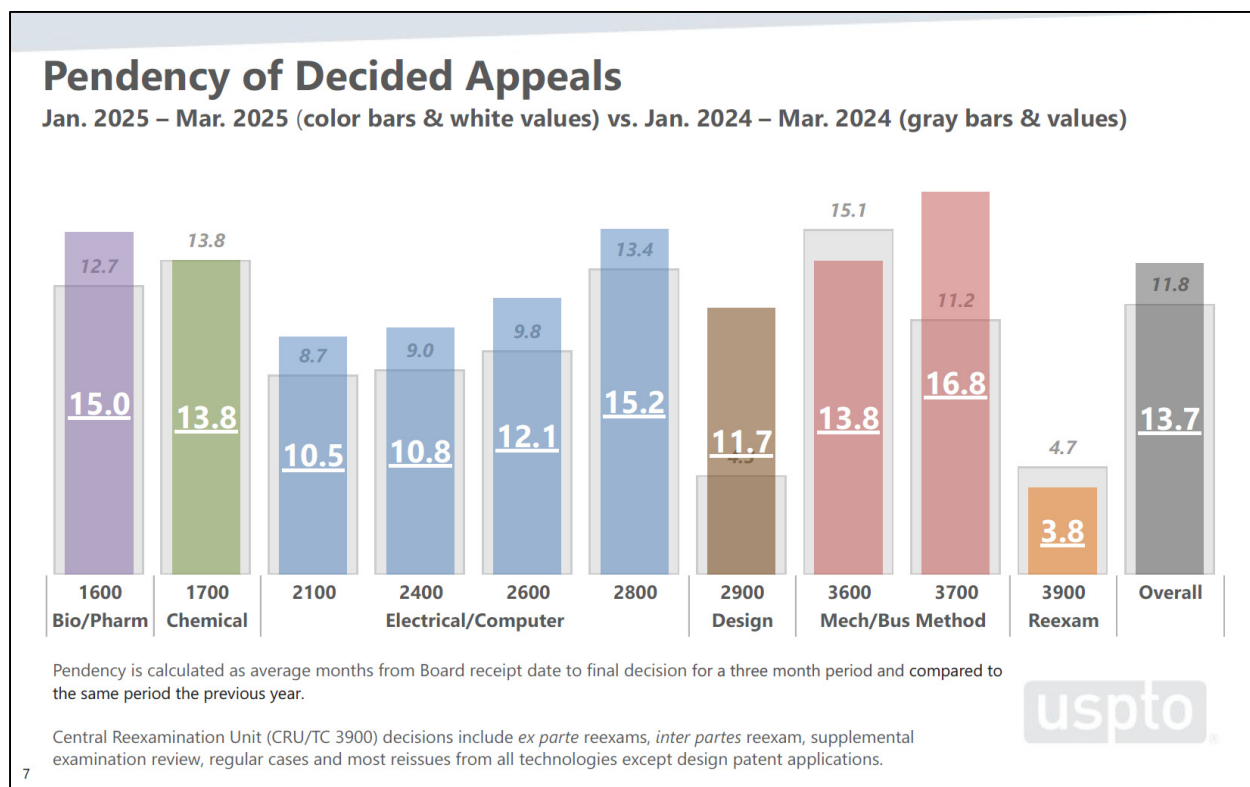
According to the latest data published by the USPTO, roughly a quarter of all *ex parte* appeals have been pending for over eleven months. EX2013.¹⁰ In 2025, the pendency has increased in almost every technical center. Shown below, the time (in months) to a final decision has increased in 2025 (shown with the color bars and white values) compared to the same data from 2024 (shown with the gray bars and gray values). For the technology center of the ’968 patent—2100¹¹—the

¹⁰ The latest data on the PTAB Dashboard is from November 2023.

However, the data from FY24 and FY25 also indicates that a substantial number of cases have been pending for over eleven months.

¹¹ The ’968 patent describes an interrupt technique for a nonvolatile memory controller. Patents for “Memory Access and Control” are under 2130, within tech

pendency has increased from 8.7 months to 10.5 months, a 20.7% increase.



EX2012, 7.

In the current fiscal year (FY25), the PTAB’s backlog of *ex parte* appeals in the 2100 technology center has also increased. Shown below, in FY25, the PTAB’s starting inventory of *ex parte* appeals in the technology center 2100 was 367 cases. EX2012, 4. In FY25 (October 2024 through March 2025), 225 appeals have been filed, whereas the PTAB decided 181 appeals. *Id.* This has increased the backlog for technology center 2100 by 12% (44 cases)—the highest increase in number of

center 2100 (Computer Architecture Software and Information Security).

cases outstanding for any technology center during FY25. *See id.*

Receipts & Dispositions (Fiscal Year through Mar. 31, 2025)												
Technology Center	Starting Inventory	Appeals Filed	Affirmed	Affirmed -in-Part	Reversed	Panel Remand	Admin Remand	Dismissed	Appeals Decided	Ending Inventory	Inventory Change	% of Inventory
1600	442	191	125	8	66	0	0	7	206	427	▼ -15	9.3%
1700	843	330	210	28	102	0	0	4	344	829	▼ -14	18.1%
2100	367	225	108	22	46	0	3	2	181	411	▲ 44	9.0%
2400	323	164	90	20	47	0	0	0	157	330	▲ 7	7.2%
2600	257	135	69	7	19	0	0	0	95	297	▲ 40	6.5%
2800	346	149	71	14	56	0	0	0	141	354	▲ 8	7.7%
2900	28	5	16	0	4	0	0	0	20	13	▼ -15	0.3%
3600	1,072	384	417	22	89	0	1	1	530	926	▼ -146	20.2%
3700	951	356	183	51	88	0	1	2	325	982	▲ 31	21.4%
3900 (Ex Parte)	12	23	13	0	4	0	1	0	18	17	▲ 5	0.4%
3900 (Sup. Exam)	0	0	0	0	0	0	0	0	0	0	■ 0	0.0%
3900 (Reissue)	7	12	10	0	5	0	0	0	15	4	▼ -3	0.1%
3900 (Regular)	2	0	0	0	0	0	0	0	0	2	■ 0	0.0%
Board Total	4,650	1,974	1,312	172	526	0	6	16	2,032	4,592	▼ -58	100.0%

% Decisions					
Affirmed	Affirmed-in-Part	Reversed	Panel Remand	Admin Remand	Dismissed
64.6%	8.5%	25.9%	0.0%	0.3%	0.8%



4

EX2012, 4 (annotated).

To reduce the average time to final decision, the 411 currently pending *ex parte* appeals in technology center 2100, the 12% backlog growth in the 2100 technology center during FY25, and the 4,592 currently outstanding *ex parte* appeals overall, the PTAB should focus its efforts on the pending *ex parte* appeals—not this IPR, especially since the district court is already scheduled to adjudicate validity months *before* the Board reaches its final decision.

In total, the other considerations also favor discretionary denial.

III. THE BOARD SHOULD DENY INSTITUTION UNDER § 325(D).

The Board should also deny institution under 35 U.S.C. § 325(d) because the

grounds rely on the same or substantially the same art previously presented to the Office, and Petitioners have not established that the Office erred in a manner material to the patentability of the challenged claims.

A. Legal Framework

The Board may deny institution if the grounds in the petition are based on the same or substantially the same art or arguments previously presented to the Office. 35 U.S.C. § 325(d). “Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS), in the prosecution history of the challenged patent.” *Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GMBH*, IPR2019-01469, Paper 6 at 7-8 (P.T.A.B. Feb. 13, 2020) (precedential).

When deciding whether to deny institution under § 325(d), the Board uses a two-part framework: “(1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously 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 challenged claims.” *Advanced Bionics*, IPR2019-01469, Paper 6 at 8. Under the first part of the framework, the Office considers the following factors: the similarities and material differences between the asserted art and the prior art involved during examination;

the cumulative nature of the asserted art and the prior art evaluated during examination; and the extent of the overlap between the arguments made during examination and the manner in which petitioner relies on the prior art. *Advanced Bionics*, IPR2019-01469, Paper 6 at 9-10 (citing *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17-18 (P.T.A.B. Dec. 15, 2017) (precedential)).

When the first part of the *Advanced Bionics* framework is satisfied, the Board determines whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Advanced Bionics*, IPR2019-01469, Paper 6 at 8. The following factors relate to whether a petitioner has demonstrated a material error: the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; whether petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art; and the extent to which additional evidence and facts presented in the petition warrant reconsideration of the prior art or arguments. *Advanced Bionics*, IPR2019-01469, Paper 6 at 9-10 (citing *Becton, Dickinson*, IPR2017-01586, Paper 8 at 17-18).

“At bottom, this framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.” *Advanced Bionics*, IPR2019-01469, Paper 6 at 9.

B. The grounds in the petition rely on the same or substantially the same art considered during prosecution.

In this case, Petitioners rely on the same or substantially the same prior art that the examiner already considered during prosecution. Petitioners raise three grounds that rely on four references: (1) U.S. Patent Application Publication No. 2010/0262979 to Borchers *et al.*; (2) PCI Local Bus Specification Revision 3.0; (3) PCI Express 2.0 Based Specification Revision 0.9; and (4) U.S. Patent Application Publication No. 2011/0197003 to Serebrin *et al.* Pet., 18. Petitioners refer to references (2) and (3) collectively as the “PCI Standards.” *Id.*

Grounds	Claims	Basis
#1	1-18	Obvious under 35 U.S.C. § 103 (Pre-AIA) over Borchers
#2	1-18	Obvious under 35 U.S.C. § 103 (Pre-AIA) over Borchers and the PCI Standards
#3	1-18	Obvious under 35 U.S.C. § 103 (Pre-AIA) over Borchers, the PCI Standards, and Serebrin

Pet., 18.

Borchers—the primary reference in every ground—was already considered by the Office during prosecution. The applicant submitted Borchers in an IDS, which included only three references. EX1002, 107-10. A primary examiner then initialed the IDS entry for Borchers, indicating that he considered the reference. EX1002, 120.

When a primary reference was cited in an IDS and considered during prosecution, the Board has determined that the grounds rely on the same or substantially the same art previously presented to the office. *Google LLC v. Valtrus Innovations Ltd.*, IPR2022-01197, Paper 9 at 22 (P.T.A.B. Jan. 3, 2023); *Google LLC v. Valtrus Innovations Ltd.*, IPR2022-01197, Paper 18 at 28-29 (P.T.A.B. June 13, 2023). This should itself satisfy the first part of the *Advanced Bionics* framework. *Id.* However, the other references cited in the grounds are also the same or substantially the same art previously presented to the Office.

The PCI standards include substantially the same art previously presented to the Office. During prosecution, the examiner considered numerous revisions of the NVM Express (NVMe) specification. EX1002, 116, 157. The examiner first considered Revision 1.0b, but this version was dated July 12, 2011—after the '968 patent's priority date. *Id.* The examiner then asked the applicant to provide Revision 1.0, which was published earlier. *Id.* The applicant provided the examiner with Revision 1.0. EX1002, 129, 144. "After close review of the document," the examiner determined that "it does not show the details of the steps performed by the memory controller as claimed." EX1002, 157.

The relevant portions of the PCI standards that are cited in the petition are closely related and substantially similar to the NVMe specifications the Office considered during prosecution because NVMe was designed to operate over the

PCI Express (PCIe) bus and builds directly on top of the PCIe architecture.

EX2019, 8 (“This interface is optimized for Enterprise and Client solid state drives, typically attached to the PCI Express interface.”). In fact, the NVMe specification references PCI/PCIe over 150 times. *See* EX2019. The NVMe also leverages the same features of the PCIe standards that Petitioners rely on, including its register-level interface, interrupt mechanisms such as Message Signaled Interrupts (MSI/MSI-X), and doorbell registers. EX2019, 8-9 (“The interface has the following key attributes: . . . Support for MSI/MSI-X and interrupt aggregation” and “This specification defines a streamlined set of registers whose functionality includes: . . . Doorbell registers for scalable number of Submission and Completion Queues.”). Accordingly, when Petitioners cite to features of the PCI standards such as MSIs (Pet., 37, 42, 48, 77-79) or doorbell registers (Pet., 23, 44-45), the examiner already considered those features when examining NVMe. *See* EX2019, 8-9. The Office would have also considered the PCI/PCIe functionality when considering the other references in the prosecution history, which cite the PCI standards extensively. *E.g.*, EX1001, 1:15-25, 3:63-66, 10:1-3, 10:39-42, 16:61-67; EX1005, ¶¶110, 115; EX2020, 3:14-19, 5:48-58, 6:34-43, 9:45-49, 10:33-38; EX2021, 1:21-31, 3:43-52; EX2022, ¶¶12, 204; EX2023, ¶¶1, 24, 165, 169. The teachings that Petitioners rely on in the PCI standards are therefore cumulative to features in the NVMe specifications.

The only other reference is Serebrin, which is used in Ground 3. But Serebrin is cumulative to Borchers because, according to Petitioners, “Ground 3 is substantially the same as that of Ground 1,” which relies on the same Borchers reference that was overcome during prosecution. Pet., 87. Petitioners used Serebrin merely to show that an interrupt processor can use memory. *See* Pet., 34, 40, 56-57, 85-87. Yet the art considered during prosecution—including the NVMe specification—describes memory in the context of interrupt signaling. *See, e.g.,* EX2019. Petitioners provided no reasons why Serebrin’s specific teachings about memory are somehow different and non-cumulative to the references considered during prosecution. *See* Pet., 89-91 (analysis under § 325(d) not mentioning Serebrin). To the contrary, Petitioners allege that Serebrin is “substantially the same” as Borchers. *See* Pet., 87.

Borchers is the same art considered previously, the PCI standards are substantially the same art, and the teachings in Serebrin are cumulative and insignificant. The first part of the *Advanced Bionics* framework is satisfied.

C. Petitioners have not established that the Office erred in a manner material to the patentability of the challenged claims.

When the first part of the *Advanced Bionics* framework is satisfied, the Board determines “whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.” *Advanced Bionics*, IPR2019-01469, Paper 6 at 8. Petitioners have raised two arguments for why the

Office erred. Pet., 90-91. Both arguments fail.

First, the Petitioners alleged that “Borchers’ inclusion in an IDS does not show that Borchers was given serious evaluation by the Examiner.” Pet., 90. The Board has rejected this argument when, like here, the examiner indicates that it “considered” the reference. *Google*, IPR2022-01197, Paper 9 at 18-19. Even though the examiner did not discuss Borchers in detail, the examiner indicated that Borchers was “considered” in a signed IDS confirmation. EX1002, 120. Thus, Borchers appears on the face of the ’968 patent along with eleven other references. Because Borchers was “considered” by the examiner during prosecution, this weighs slightly in favor of exercising discretion to deny institution under § 325(d). *Google*, IPR2022-01197, Paper 9 at 19.

The *Navistar* case Petitioners cite (Pet., 90) does not state otherwise. In *Navistar*, the examiner cited two of the IPR references “in a list of ‘prior art made of record and *not* relied upon,’ and characterized this prior art as ‘pertinent to applicant’s disclosure.’” *Navistar, Inc. v. Fatigue Fracture Tech., LLC*, IPR2018-00853, Paper 13 at 17 (P.T.A.B. Sept. 12, 2018) (emphasis added). These references were also cited in earlier family members as “prior art made of record and *not* relied upon.” *Id.*, 17 n.5 (emphasis added). In other words, the Office expressly stated, on multiple occasions, that the references were *not* relied upon. *Id.* Whereas here, the examiner considered Borchers in an IDS with only three

references.

Second, Petitioners alleged that the examiner erred by overlooking Borchers' teachings in combination with evidence in the PCI standards about a doorbell register and Dr. Min's associated testimony, which parrots the petition *verbatim*. See Pet., 90-91. Petitioners cite a case where the Board did not deny institution in part because the petitioner raised a new secondary reference that disclosed a key claim element that was missing in the art considered during prosecution. *Puma N. Am., Inc. v. Nike, Inc.*, IPR2019-01058, Paper 10 at 12-16, 19 (P.T.A.B. Oct. 31, 2019). But unlike the *Puma* case, Petitioners have not identified a teaching that was missing from and non-cumulative of the references the examiner considered during prosecution. During prosecution, the examiner considered Borchers. See EX1002, 120. The examiner also considered the NVMe specification, which refers to doorbell registers and the associated signaling at least 50 times. EX1002, 157; EX2019. In contrast, the PCI standards (EX1006 and EX1007) collectively refer to a doorbell register in only a single paragraph. EX1006, 308. Petitioners have failed to explain how this limited disclosure about a doorbell register is somehow different and non-cumulative of the NVMe specification, which refers to doorbell registers in far more detail.

Even if Petitioners were to show that the PCI standards are non-cumulative to the NVMe specifications, failure to consider the PCI standards' alleged

teachings about “doorbell updates” would not have been an error “material to the patentability of challenged claims.” *Advanced Bionics*, IPR2019-01469, Paper 6 at 8. “An example of a material error may include misapprehending or overlooking specific teachings of the relevant prior art where those teachings impact patentability of the challenged claims.” *Id.* at 8 n.9. But here, the examiner’s patentability determination did not hinge on the “doorbell update” limitation because he allowed claims without it. EX1002, 116 (allowing now-issued claim 8, which does not recite a “doorbell update”). Since the “doorbell update” did not impact his patentability determination, any error for failing to consider the PCI standards’ teachings about an alleged “doorbell update” was immaterial.

Petitioners failed to demonstrate that the examiner misapprehended or overlooked specific teachings in the relevant prior art such that the error by the Office was material to the patentability of the challenged claims. Because both parts of the *Advanced Bionics* framework are met, the Board should exercise its discretion under § 325(d) to deny institution. *See Advanced Bionics*, IPR2019-01469, Paper 6 at 21.

IV. CONCLUSION

Litigating the same or similar issues at the Board as the issues that are already scheduled to get resolved in the district court would be duplicative and contrary to the intent of IPRs for “providing a more efficient system for challenging patents” and “reducing unwarranted litigation costs.” H.R. Rep. No. 112-98 at 39-40 (2011); *see also NHK Spring*, IPR2018-00752, Paper 8 at 19-20. Moreover, the Office has already evaluated the same or substantially the same art and arguments. Accordingly, the Board’s limited resources would be better spent elsewhere.

Respectfully submitted,

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

1. This Patent Owner's Brief on Discretionary Denial complies with the type-volume limitation of 14,000 words, comprising 10,706 words, excluding the parts exempted by 37 C.F.R. § 42.24(a)(1).

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

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

I certify that the above-captioned **PATENT OWNER'S BRIEF ON
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