

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

POLARIS POWERLED TECHNOLOGIES, LLC,
Patent Owner.

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

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

I. Introduction

Petitioner respectfully requests that the Director decline to exercise her discretion to deny institution and advance the Petition to a merits panel for consideration.

Petitioners Western Digital Technologies, Inc. and Sandisk Technologies Inc. (together “Petitioner”) oppose Patent Owner’s Request for Discretionary Denial (Paper 9, “PO Brief”) The *Fintiv* factors and the additional factors set forth in the Acting Director’s “Interim Processes for PTAB Workload Management” (“Director Memo”), considered as a whole, do **not** warrant denial—the parallel litigation has been stayed at an early stage of the case pending the resolution of the Petition.

With respect to *Fintiv*, five of the six *Fintiv* factors strongly weigh against denial. Because the parallel litigation has been stayed and in view of Petitioner’s “*Sotera*” stipulation, this IPR is a “true alternative” to the parallel litigation.

The additional factors listed in the Director Memo similarly weigh against denial. Petitioner has a compelling interest in having access to cost-effective PTAB review when accused of infringement by entities that do not manufacture or innovate. Patent Owner (Polaris PowerLED) has no compelling interest or expectation sufficient to avoid PTAB review, because unlike the original owner of the ’968 patent, Patent Owner is an assertion entity who appears to have acquired

the patent three years ago solely for the purpose of litigation—which changes everything with respect to settled expectations. Further, the Petition does not rely on expert testimony for gap-filling any claim elements. Instead, all claim elements are shown in the printed publication prior art, and the petition relies upon expert testimony to the extent necessary under Federal Circuit precedent to show how a POSITA would read and understand these references.

This IPR is one of three IPRs challenging three patents asserted in the stayed parallel litigation. Ex.1032, 1. These three patents are from different families and address three distinct and well-established technologies associated with memory systems respectively: Error Correcting Coding (ECC), redundant array of independent disks (RAID), and interrupt handling. Therefore, they are better suited for PTAB review, where the Board's technical expertise is well-suited to assess the distinctions and technical details of the asserted claims and the prior art presented in the obviousness grounds. The District Court in the parallel litigation agrees, having stayed the litigation so that the PTAB can handle this accordingly.

II. Discretionary denial under *Fintiv* is not warranted.

The *Fintiv* factors, considered as a whole, do not warrant denial. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (Mar. 20, 2020) (precedential). Every factor either favors institution or is neutral.

A. Factor 1 weighs strongly against denial: A stay was granted.

The parallel Litigation “is still in early stages of litigation” and has been stayed. Ex.1032, 4. The Court granted Petitioner's Motion to Stay Pending IPRs on June 24, 2025. *Id.*, 1. The stay remains in effect pending resolution of the IPR proceedings. With the parallel litigation stayed, this IPR is a true alternative to district court litigation. Thus, this factor strongly weighs against denial.

B. Factor 2 weighs strongly against denial: The parallel litigation was stayed.

While the scheduling originally indicated a trial date around the same time as the projected Final Written Decision (“FWD”), this previously scheduled trial date, together with other scheduled dates, was “**VACATED** and taken off the calendar.” Ex.1032, 9. No trial date is scheduled.

Accordingly, Factor 2 strongly weighs against denial in view of the stay in the parallel litigation.

C. Factor 3 weighs strongly against denial: Minimal relevant investment and diligent filing.

Factor 3 weighs strongly against discretionary denial because, at institution, investment by the court and parties will have been minimal as to the activities pertinent to *Fintiv*. Patent Owner's Request for Discretionary Denial includes a laundry list of activities allegedly showing substantial investment, but very few relate to invalidity of the '968 patent. *See* PO Brief, 7-9. Under *Fintiv*, “[i]f, at the time of the institution decision, the district court has not issued orders *related to*

the patent at issue in the petition, this fact weighs against exercising discretion to deny institution.” *Fintiv*, 10. Not only is there no order, no claim construction briefing has been done. The Court confirmed that “the case is in its *early* stages and there is still more work ahead of the parties and the Court than behind them.” Ex.1032, 4 (citations omitted, emphasis added).

This factor also weighs against denial because the Petitioner worked diligently to file the instant petition after receiving Patent Owner's infringement contentions and diligently filed the now-granted motion for stay. *Fintiv*, 11. Petitioner received Plaintiff's infringement contentions on October 2, 2024 (Ex.1023), and worked diligently to file three IPR petitions, including the instant petition, *within four months*. At the time of the filing, the parallel litigation was in its early stages and claim construction briefing had yet to begin. The Board has recently agreed that similar diligence is reasonable and weighs against denial. *See Samsung Elecs. Co., Ltd. v. Mullen Industries LLC*, IPR2024-01472, Paper 9 at 10 (Mar. 31, 2025) (“Petitioner's diligence in filing its Petition (a) less than five months after receiving Patent Owner's infringement contentions and (b) prior to the parties briefing claim construction issues weighs against exercising discretionary denial.”).

Accordingly, Factor 3 weighs strongly against denial.

D. Factor 4 weighs strongly against denial: Petitioner's “Sotera” stipulation.

Factor 4 weighs strongly against discretionary denial. First, the Court, in staying the parallel litigation, explained the benefits of PTAB review, including simplification of issues and trial in the parallel litigation. The Court reasoned that there is “a likelihood that ‘the outcome of the [IPR] could eliminate the need for trial if the claims are cancelled or, if the claims survive, facilitate trial by providing the court with expert opinion of the [Patent and Trial Office] and clarifying the scope of the claims.’” Ex.1032, 6. And “[i]f the PTAB cancels or narrows a portion of the asserted claims, the scope of this litigation may be significantly reduced.” Ex.1032, 5 (citations omitted).

Second, Petitioner has made a *Sotera* stipulation in district court. *See* Ex.1019 (stipulation filed in parallel district court proceeding). Specifically, Petitioner stipulated that:

[I]f the PTAB institutes an IPR in response to Defendant's petition against Plaintiff's U.S. Patent No. 8,554,968 (IPR2025-00517), Defendant will not pursue in this litigation against the claims challenged in IPR2025-00517, (i) the specific grounds raised in IPR2025-00517, or (ii) any other grounds that could have reasonably been raised before the PTAB in that instituted proceeding (i.e., any ground that could have reasonably been raised under §§ 102 or 103 on the basis of prior art patents or printed publications).

Ex.1019, 1-2.

Petitioner's *Sotera* stipulation was timely under the procedures in place

when the petition was filed. At the time of filing on January 23, 2025, PTAB precedent provided that the “appropriate time for a petitioner to offer a stipulation related to the *Fintiv* factor 4 analysis is prior to the Board’s decision of whether to institute review.” *NXP USA, Inc. v. Impinj, Inc.*, IPR2021-01556, Paper 13 at 4 (Sept. 7, 2022) (de-designated precedential Apr. 25, 2025); *see also Nike, Inc. v. ADIDAS AG*, 955 F.3d 45, 52 (Fed. Cir. 2020) (“In interpreting the APA’s notice provisions in the context of IPR proceedings, we have cautioned that an agency may not change theories in midstream without giving respondents reasonable notice of the change and the opportunity to present argument under the new theory.”) (citation and quotation marks omitted).

Patent Owner argues that this stipulation is “too late” under the procedures defined in the FAQs. PO Brief, 13. The FAQs state: “A petitioner should file a *Sotera* or *Sand* stipulation as soon as practicable, so that a patent owner may address the impact of the stipulation in its discretionary denial brief.” Ex.1021, FAQ 14. Petitioner filed this *Sotera* stipulation as soon as practicable on April 28, 2025—three days after the FAQs were issued. In an apparent attempt to preclude consideration of a stipulation, Patent Owner filed their brief on April 25, 2025—almost one month before their due date of May 24, 2025. Had Patent Owner filed on their actual due date, Patent Owner would have had nearly one month to consider and brief the *Sotera* stipulation—provided there is anything to be said.

Patent Owner's early filing should not preclude consideration of Petitioner's

Sotera stipulation. And Patent Owner had ample opportunity to brief the expected *Sotera* stipulation in their discretionary denial brief or any supplemental briefing they could have asked for.

Petitioner respectfully submits that this stipulation outweighs all other *Fintiv* factors as it eliminates overlap with invalidity issues raised in the parallel proceeding. Petitioner's stipulation is consistent with the scope of estoppel under 35 U.S.C. § 315(e)(2). *See Ingenico Inc. v. IOENGINE, LLC*, No. 2023-1367, 2025 WL 1318188, at *8 (Fed. Cir. May 7, 2025) ("IPR estoppel did not preclude Ingenico from relying on the DiskOnKey System with related printed publications at trial...").

This case is distinguishable from the *Motorola Solutions* case cited by Patent Owner. PO Brief, 14. In *Motorola Solutions*, the Director found that the *Sotera* stipulation did not outweigh the substantial investment in the district court proceeding, where "the parties had served extensive infringement and invalidity contentions, served opening and rebuttal expert reports, filed claim construction briefs, and conducted several deposition," and the "court also had held a claim construction hearing and construed the disputed claim terms," before the litigation was stayed after institution. *See Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19 at 3-4 (P.T.A.B. Mar. 28, 2025). In contrast and as noted by the

judge, “[t]his case is still in early stages of litigation.” Ex.1032, 4. Accordingly, Petitioner’s *Sotera* stipulation weighs strongly against denial.

Also weighing against denial under Factor 4 is that Petitioner’s challenge encompasses claims 4-5 and 12-13, which are not at issue in the litigation. And only the asserted claims are the subject of Petitioner’s invalidity contentions on the parallel litigation. *See* Ex.2008, 1 (asserting invalidity “***only to the asserted claims identified by Polaris in its Infringement Contentions.***”). Petitioner elected to challenge additional, unasserted claims for efficiency reasons—for example, to avoid filing a second IPR in the event Patent Owner asserts additional claims in the parallel litigation.

These additional challenged (but unasserted) claims differ in claim scope from the asserted claims, meaning that key issues in the petition will not be resolved by the district court—further reducing the degree of overlap under Factor 4. *See Fintiv*, 13 (examining whether the district court will “resolve key issues in the petition”).

Petitioner’s *Sotera* stipulation also moots Patent Owner’s argument that “Petitioners appear to have strategically omitted the defendant Western Digital Corporation—the parent corporation of Western Digital Technologies, Inc.—from the petition to evade estoppels.” PO Brief, 15. Western Digital Corporation has explicitly agreed to be bound by Petitioner’s *Sotera* stipulation. Ex.1019, 1.

Additionally, Western Digital Corporation has explicitly “agree[d] to be bound by the estoppel effect of the IPRs” in its Reply for Motion to Stay. Ex.2011, 2 (“Western Digital Corporation agrees to be bound by statutory estoppel *to the same extent as Western Digital Technologies*”). Western Digital Corporation’s agreement to be bound by estoppel effect of the IPR is not conditioned upon the stay being granted. Western Digital Corporation is thus not “evad[ing] estoppel” as Patent Owner argues. PO Brief, 15; Ex.1032, 6.

Accordingly, Factor 4 weighs strongly against denial because of (i) Petitioner’s *Sotera* stipulation and (ii) key issues in the Petition that will not be resolved by the district court.

E. Factor 5 is neutral: Petitioner is a defendant in the parallel litigation.

Petitioner Western Digital Technologies, Inc. is a defendant in the parallel litigation. That is true of most IPR petitioners, making this factor neutral. *See HP Inc. v. Slingshot Printing LLC*, IPR2020-01084, Paper 13 at 9 (Jan. 14, 2021); *see also NVIDIA Corp. v. Invensas Corp.*, IPR2020-00603, Paper 11 at 23 (Sept. 3, 2020) (this factor weighs against discretionary denial where the district court trial and IPR final written decision are expected “around the same time”).

F. Factor 6 weighs against denial: The merits of the Petition are particularly strong.

Factor 6 favors institution because the Petition plainly shows that the

challenged claims of the '968 patent claims are unpatentable. In its PO Brief,

Patent Owner does not raise any specific merits arguments other than stating that it will present merits arguments in its Patent Owner Preliminary Response (POPR).

However, as discussed in detail below at III.A, Patent Owner's merits arguments in its POPR do not hold up under scrutiny. Thus the merits of the Petition are particularly strong, favoring institution.

G. The *Fintiv* factors as a whole weigh against denial.

In summary, each *Fintiv* factor is either neutral or weighs strongly against denial:

Factor	Weight	Reason
1 (stay)	against denial	a stay has been granted
2 (trial gap)	strongly against denial	A stay has been granted and thus there is no scheduled trial date
3 (investment)	against denial	Parallel litigation in early stages and no court orders regarding invalidity of the '968 patent
4 (overlap)	strongly against denial	<i>Sotera</i> stipulation; key issues not resolved by district court
5 (same party)	neutral	Petitioner is defendant
6 (merits)	strongly against denial	Strength of the patentability challenge is strong

In light of all the *Fintiv* factors as a whole, the Director should not discretionarily deny institution under §314(a).

III. The additional factors set forth in the Director Memo favor institution

The Director Memo invites the parties to “address all relevant [discretionary

denial] considerations” and provides a list of potential factors. Director Memo, 2-3.

Each of the potential factors favors institution:

- The unpatentability challenges in the Petition are particularly strong given that the prior art shows the same interrupt coalescing techniques that are claimed.
- The Petition relies upon expert testimony to the extent necessary under Federal Circuit precedent, and such expert testimony is supported by evidence as required under 37 CFR § 42.65 and *Xerox*.
- Patent Owner cannot reasonably allege settled expectations regarding the '968 patent based on a few years of ownership and the lack of any post-issuance validity challenge.
- Neither the PTAB nor another forum has adjudicated the validity of the '968 patent.
- Patent Owner does not allege that any changes in the law or new judicial precedent issued since issuance of the claims affects patentability.
- The United States has a compelling economic and national security interest in ensuring Sandisk and Western Digital, leading domestic technology innovators, have access to efficient AIA proceedings when faced with meritless lawsuits by non-practicing entities.

Several of these factors are of particular importance to the Director's discretion and are addressed individually below.

- A. **The merits of the Petition are particularly strong because the prior art teaches the same interrupt coalescing technique that is claimed.**

The '968 patent should not have issued because it claims no more than well-known concepts related to the interrupt coalescing techniques that are described and claimed in the '968 patent. The '968 patent is thus one of the patents Congress referred to when discussing the purpose of the America Invents Act—"improving patent quality and providing **a more efficient system for challenging patents that should not have issued.**" House Report (H.R. Rep. 112-98, 2011), 39-40.

As stated in the Petition, the purported novelty of the '968 patent is to delay sending the interrupt signal until certain conditions (e.g., by a timer or response counter) are met. *See* Ex.1001, 1:38-2:41. But this technique—referred to as interrupt coalescing—was already known as of the filing date of the '968 patent. *See generally*, Ex.1005. The Borchers reference, describes using a "ResponseNew Counter 280" and a "LastResponse Timer 282" to determine when to send an interrupt signal to the host. Ex.1005, Fig. 2. As shown in the petition, and supported by the declaration of Dr. Paul Min (Ex.1003), Borchers renders obvious the Challenged Claims of the '968 patent.

Patent Owner's merits-based arguments do not hold up under scrutiny and thus the merits of the case remain strong, favoring institution. Patent Owner argues that the director should consider their POPR arguments "when determining whether to exercise its discretion to deny institution." PO Brief, 6. But the POPR does not refute the analysis in the Petition.

For example, Patent Owner alleges distinctions where there are none. Patent Owner states that “Borchers’ interrupt processor 124 does not ‘alert the host processing unit of the unprocessed completion status in the completion queue.’” But the Petition explained how Borchers’ “interrupt processor 124 is configured to **signal** the **host 106** with an interrupt when new responses are available in the response buffer 123 [*“completion queue”*].” Ex.1005, [0035].

Because Patent Owner has not effectively disputed the Petition’s analysis, the strength of the patentability challenge remains strong. Petitioner respectfully requests that the Director pass this case to a merits panel and requests that the Board institute trial.

B. The Petition properly relies on expert testimony

The Petition’s compliance with Federal Circuit precedent should not be a reason for discretionary denial. And Dr. Min’s opinions are fully supported by the evidence of record.

1. Federal Circuit precedent requires that the Petition rely on expert testimony.

Petitioner’s reliance on expert testimony as required by Federal Circuit precedent should not be a reason for discretionary denial. The foundational decisions upon which patent law is based—*Phillips*, *KSR*, etc.—require the adjudicator to evaluate the patent and prior art from perspective of a POSITA. That perspective is established with evidence, often in the form of expert declarations.

Attorney argument is insufficient.

It is well established that patent claims are construed based on the understanding of a POSITA. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (“We have made clear, moreover, that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.”) (citing *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004) (“A court construing a patent claim seeks to accord a claim the meaning it would have to a person of ordinary skill in the art at the time of the invention.”)); *Home Diagnostics, Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1358 (Fed. Cir. 2004) (“customary meaning” refers to the “customary meaning in [the] art field”); *Ferguson Beauregard/Logic Controls v. Mega Sys., LLC*, 350 F.3d 1327, 1338 (Fed. Cir. 2003) (claim terms “are examined through the viewing glass of a person skilled in the art”); see also *PC Connector Solutions LLC v. SmartDisk Corp.*, 406 F.3d 1359, 1363 (Fed. Cir. 2005) (meaning of claim “must be interpreted as of [the] effective filing date” of the patent application); *Schering Corp. v. Amgen Inc.*, 222 F.3d 1347, 1353 (Fed. Cir. 2000) (same)).

Obviousness grounds are likewise evaluated from the perspective of a POSITA. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 401 (2007) (“If a person of

ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.”), 418 (“[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.”), 421 (“A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

The Federal Circuit has also made it clear that attorney argument alone is not evidence and should be given little weight. *Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017) (“Attorney argument is not evidence.”) (citing *Gemtron Corp. v. Saint-Gobain Corp.*, 572 F.3d 1371, 1380 (Fed. Cir. 2009) (“[U]nsworn attorney argument . . . is not evidence and cannot rebut . . . other admitted evidence . . .”)); see also *Elbit Sys. Of Am., LLC, v. Thales Visionix, Inc.*, 881 F.3d 1354, 1359 (Fed. Cir. 2018) (“Elbit fails to present any evidence supporting this contention beyond attorney argument . . . and ‘[a]ttorney argument is not evidence’ and cannot rebut other admitted evidence.”).

Because attorney argument is not evidence, expert testimony is *necessary* to properly support a petition’s claim construction and obviousness positions, which

are evaluated from the perspective of a POSITA. This is precisely how the Petition presents and uses the testimony of Dr. Min. *See generally* Petition, (relying on testimony of Dr. Min to support obviousness grounds). The unpatentability grounds set forth in the Petition are fully supported by the references themselves—Dr. Min's testimony serves to confirm, support, and explain the disclosures of the references from the perspective of a POSITA. *See generally* Ex.1003.

Importantly, Dr. Min was a POSITA as of the critical date of the '968 patent. Ex.1003, ¶¶7-23. Dr. Min defines a POSITA as someone “knowledgeable and familiar with memory systems.” Ex.1003, ¶22. Dr. Min has such experience, as he “implemented a number of semiconductor integrated circuit chips” including “switch fabrics, processors, high speed interfaces, protocol transposers, controllers, content search engine, pattern matching, and memory cells and arrays.” Ex.1003, ¶18.

Patent Owner nevertheless questions that Dr. Min “has the requisite expertise specific to the memory controller interrupt techniques and PCI standards at issue in this IPR.” PO Brief, 32. Patent Owner then states that “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.” PO Brief, 33. But Dr. Min need not have contributed to developing the PCI standards in order to be considered a POSITA. And in any event, disputes over the definition

of a POSITA should not be a reason for discretionary denial.

Further, Dr. Min's testimony is supported by corroborating evidence in the form of the disclosure of the references relied upon in the unpatentability grounds (e.g., Ex.1005, Ex.1006, Ex.1007, Ex.1008) and several tertiary references (e.g., Ex.1009, Ex.1011, Ex.1012, Ex.1013, Ex.1014). *See generally*, Ex.1003. Further still, Dr. Min repeatedly provides technical reasoning to support his statements and understandings of the references. *See generally*, Ex.1003.

Further, the Federal Circuit has recognized that “when the technology is complex and ‘beyond the comprehension of laypersons,’ expert testimony is ‘sometimes essential.’” *Synopsys, Inc. v. Mentor Graphics Corp.*, 814 F.3d 1309, 1320 (Fed. Cir. 2016) (internal quotations removed); *see also Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1330 (Fed. Cir. 2009) (“If the relevant technology were complex, the court might require expert opinions.”). This is precisely the situation here. Dr. Min's expertise is utilized to explain the technical background of complicated concepts relevant to the '968 patent (*see, e.g.*, Ex.1003, ¶¶28-41). Dr. Min also provides detailed explanations regarding how a POSITA would have understood the technical descriptions found in the '968 patent and the prior art references (*see, e.g.*, Ex.1003, ¶¶28-230). Dr. Min's testimony serves these essential purposes and is a strength of the Petition.

2. Patent Owner's arguments based upon Xerox are misplaced.

Patent Owner argues that “Dr. Min repeats, verbatim, the arguments from the petition.” PO Brief, 27 (citing *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15-17 (August 24, 2022) (precedential)). *Xerox*, however, does not stand for the proposition that a Petition and supporting declaration cannot be similar. *Xerox* instead focuses on whether the expert testimony cites to “supporting evidence or provide[s] any technical reasoning.” *Xerox*, 15. Expert testimony is only afforded less weight if it “adds little to the conclusory assertion for which it is offered to support.” *Id.* Here, Dr. Min’s analysis is fully supported by evidence, and does not rely on improper gap filling. Accordingly, the Petition’s proper reliance on expert testimony to support the unpatentability grounds favors institution.

C. Patent Owner’s purported intention to antedate Borchers is not a reason for discretionary denial.

Patent Owner believes that its purported plans to swear behind the Borchers reference make this case better suited for the district court, which has broader subpoena powers. *See* PO Brief, 19-23. But the district court’s subpoena powers are available to Patent Owner regardless of whether the Board institutes this proceeding. And it would be inappropriate to discretionarily deny this case based on Patent Owner’s “reason to believe” that sufficient documentation exists.

Patent Owner was first made aware of Petitioner’s reliance on the Borchers reference in the invalidity contentions filed December 16, 2024. Ex.1035, 52

(Invalidity Contention Cover Pleading). Since then, Patent Owner has made no effort to antedate the Borchers reference. In fact, Patent Owner more recently represented to the district court, and Petitioners, that it does not have any “documents evidencing the conception, reduction to practice, design, and development of each claimed invention, which were created on or before the date of application for the patent in suit or the priority date.” Ex.1023, 3 (Patent Owner's infringement contention cover pleading).

Patent Owner nevertheless asserts in its discretionary denial brief that the provisional application for the '968 patent “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.” PO Brief, 20. Patent Owner further states that it 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.” PO Brief, 21.

But Patent Owner's “reason to believe” sufficient documentation for establishing conception, reduction to practice, and diligence exists is no reason for discretionary denial. The district court's subpoena powers are available to Patent Owner regardless of whether this IPR is instituted. And Patent Owner has not yet

asked the court for any subpoenas, or otherwise indicated that it will have sufficient evidence to swear behind Borchers. And as demonstrated by the long list of cases cited by Patent Owner, the PTAB is well experienced in adjudicating this issue should Patent Owner present evidence for antedating Borchers to the merits panel. Accordingly, Patent Owner's speculative plans should not be a reason for discretionary denial.

D. Patent Owner's "settled expectations" argument is inconsistent with the purpose of the AIA.

Patent Owner has no compelling interest or expectation sufficient to avoid PTAB review because they only acquired the '968 patent three years ago and they appear to have done so solely for the purpose of litigation. Patent Owner notes that "the '968 patent issued on October 8, 2013—over eleven years ago." PO Brief, 33. But as a non-practicing entity, Patent Owner cannot claim it has any settled expectations arising from practicing the '968 patent. Patent Owner appears to have acquired the '968 patent in 2022 solely for the purpose of attempting to monetize it through litigation, significantly decreasing any potential relevance of this factor.

Moreover, Patent Owner has not alleged that the Petitioner was aware of the patent, nor have they alleged any meaningful attempt at engaging with Petitioner for licensing discussions. Instead, Patent Owner filed a complaint asserting the '968 patent against Petitioner only seven days after sending a notice letter, which predictably triggered this IPR challenge. Ex.1011, ¶45. The '968 patent is not

entitled to immunity from IPR review. And regarding expectations of validity, no tribunal has ever adjudicated the validity of the '968 patent after it issued.

Accordingly, the lack of settled expectations weighs against denial.

E. The PTAB has sufficient resources to handle IPR proceedings and *ex parte* proceedings

The Board's statutorily defined tasks of handling both *ex parte* appeals and post-grant proceedings should not be a reason for discretionary denial. Patent Owner argues that the Board's "limited resources are better spent on the growing backlog of *ex parte* appeals." PO Brief, 30. Patent Owner further notes that the *ex parte* appeal backlog has increased. *See* PO Brief, 30-32. But Patent Owner has ignored the fact that *ex parte* appeals are at historic lows.

And Patent Owner has not provided any evidence to show that the Board cannot handle both its *ex parte* appeal docket and its post-grant proceeding docket. Nor could it, given that the Board has recently publicly acknowledged that "[w]e do have enough staff so we can handle both the appeals and the trials with the judges and staff on board." Ex.1033. Accordingly, the existence of an *ex parte* appeal docket (increasing or not) is not a reason to discretionarily deny this specific case.

F. Compelling economic and national security interests favor institution.

Petitioners Western Digital and Sandisk together play a multifaceted role in

bolstering the US economy. As a leading provider of digital storage solutions, the companies drive significant revenue generation—with billions in annual sales that not only bolster its own financial health but also support a vast network of suppliers, service providers, and ancillary industries. Ex.1037, 4 (“Western Digital is a leading developer, manufacturer and provider of data storage devices and solutions based on both hard disk drive and NAND flash technologies. With a differentiated innovation engine driving advancements in storage and semiconductor technologies, our broad and ever-expanding portfolio delivers powerful hard disk drives (‘HDD’) and flash-based products (‘Flash’) storage solutions for everyone from students, gamers and home offices, to the largest enterprises and public clouds to capture, preserve, access and transform an ever-increasing diversity of data.”). This economic activity injects substantial funds into local communities through payrolls, tax revenues, and the multiplier effects that come with a robust manufacturing and technology ecosystem.

Moreover, Western Digital’s and Sandisk’s contributions extend to their impact on job creation and workforce development. With operations that span manufacturing, research and development, and engineering, the companies create skilled job opportunities and support local communities by fostering a demand for specialized talent. In doing so, they energize the broader US technology sector—promoting innovation in digital storage technologies that underpin critical

infrastructure like data centers, cloud computing services, and enterprise IT

systems. This technological backbone not only facilitates business operations nationwide but also reinforces American leadership in the rapidly evolving digital age. This type of advanced domestic engineering capacity is critical to U.S. economic interests.

The United States thus has a compelling economic and national security interest in providing Western Digital and Sandisk an opportunity to challenge the '968 patent under the more efficient IPR framework. As leading American technology companies, it is critical that Western Digital and Sandisk have the ability to invest and innovate without being encumbered by invalid patents. Petitioner's right to seek review of such patents by the U.S. Patent and Trademark Office is similarly critical.

It is vital that companies like Western Digital and Sandisk are provided an effective and efficient mechanism for challenging invalid patents asserted against them. Congress created the AIA for this purpose. 77 F. Reg. No. 157, 48612 (Aug. 14, 2012) ("The purpose of the AIA ... is to establish a more efficient and streamlined patent system that will improve patent quality and limit unnecessary and counterproductive litigation costs."); *see also General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16-17 (Sept. 6, 2017) ("[W]e recognize that an objective of the AIA is to provide an effective and

efficient alternative to district court litigation.”). AIA proceedings create cost savings for its participants via “reductions in legal fees incurred and the greater probability of a settlement or early-stage resolution.” Ex.1039 (study of AIA economic benefits), 2, 8 (“[T]he total economic benefits of *inter partes* reviews resulting in stay of litigation in district court included **an increase in US business activity of \$1.87 billion in gross product and 8,530 job-years of employment**”; “In situations where an *inter partes* review was conducted parallel to a district court proceeding, the economic benefits of [*inter partes* reviews] include estimated **increases of \$135.4 million in US gross product and 617 person-years of employment**”).

Petitioners Western Digital and Sandisk are seeking review of the '968 patent consistent with the purpose of AIA post-grant proceedings: an efficient, technically reliable assessment of validity. And Petitioner's *Sotera* stipulation demonstrates that it desires a true district court alternative. Denying Petitioners access to IPR in this scenario would frustrate the purpose of the AIA and deny Petitioner the specific economic benefits envisioned by Congress.

These economic interests are particularly compelling as Petitioners have been accused of infringement by a non-practicing entity, Polaris. For these reasons, compelling economic and national security interests favor institution.

IV. The new Interim Process should not govern the decision to institute.

Petitioner respectfully requests that the USPTO Director maintain the standards for institution that were in place when this Petition was filed. While the briefing above addresses the new Interim Process as best understood by Petitioner, this IPR should be governed by the procedures that were in place when it was filed, as in the June 21, 2022 Interim Procedure for Discretionary Denials issued by the Office (the “June 2022 Procedures”).

Since the Petition was filed, the USPTO rescinded the June 2022 Procedures through a short posting on the USPTO website. The Office then followed up with the March 24, 2025 Memorandum of Chief Administrative Patent Judge Scott Boalick (the “Boalick Memo”). Two days later, on March 26, Acting Director Stewart issued a Memorandum (the “Director Memo”) introducing an entirely new “interim procedure” that bifurcates institution between “(i) discretionary considerations and (ii) merits and other non-discretionary statutory considerations.” Director Memo, 1. Three weeks after the Director Memo issued (and after approximately forty patent owners had filed briefs requesting discretionary denial), the USPTO held an oral webcast setting forth additional substantive details of the new interim procedure not found in the Director Memo. Then, eight days after the webcast, the USPTO posted on its website “FAQs for Interim Processes for PTAB Workload Management” with even more substantive details. The recission notice, the Boalick Memo, the Director Memo, the oral

webcast, and the FAQs (together, the “Announcements”) fall short of satisfying the requisite statutory and constitutional obligations of the USPTO.

The Announcements make sweeping changes to PTAB procedures without going through notice-and-comment rulemaking. This is made more problematic given that the Office has represented to the public that they intend to make any further changes to the institution process through notice-and-comment rulemaking. *See* 88 Fed. Reg. 24,503 (April 21, 2023). The Announcements violate the notice-and-comment requirements under the APA and are arbitrary and capricious.

Moreover, the additional discretionary denial considerations proposed in the director memo are so broad and vague that they fail to set “forth the standards for the showing of sufficient grounds to institute review.” 35 U.S.C. § 316(a). For example, it is unclear as to how the director will consider “[s]ettled expectations,” “reliance on expert testimony,” “workload,” and “[c]ompelling economic, public health, or national security interests.”

The Director's justification for these announcements similarly falls short of statutory and constitution obligations. The Supreme Court has held that an agency's change in position must be accompanied by sufficient reasons for doing so. *See Food & Drug Admin. v. Wages & White Lion Invs., L.L.C.*, 145 S. Ct. 898, 906 (2025) (explaining that when an agency changes position, it must “offer ‘good reasons for the new policy’”); *see also F.C.C. v. Fox Television Stations, Inc.*, 556

U.S. 502 (2009) (agency changing position must show “that the new policy is permissible under the statute, that there are good reasons for it, and that the agency believes it to be better, which the conscious change of course adequately indicates”).

The agency's purported justifications of “efficiency” and “workload management” do not hold up under scrutiny. Providing additional discretionary denial factors increases the Office's workload by investing their time in consideration of more issues other than the validity of the patents challenged in IPR. This additional workload becomes more problematic given that the Office appears to be voluntarily *reducing* the number of judges. Ex.1034 (Law 360 article). The Office cannot claim they are resource constrained and at the same time reducing the number of PTAB judges.

Applying the Announcements retroactively to petitions filed prior to issuance of the new policies unduly prejudices petitioners. Petitioner has based their district court and PTAB proceeding based on previously-in-place procedures in order to best seek review of the patents Petitioner believes to be invalid. In light of these and other deficiencies in the Announcements, Petitioner respectfully requests that the Board and Director consider whether to institute based on the standards articulated in the June 2022 Procedures until such time as the Board issues new regulations in accordance with 35 U.S.C. § 316 and the rulemaking

procedures of the APA.

V. Denial under 325(d) would be inappropriate

While the Borchers reference was cited in an IDS, it was never given any attention by the Examiner. Patent Owner argues that Borchers' inclusion in an IDS "should itself satisfy the first part of the *Advanced Bionics* framework." PO Brief, 41. But Petitioner has already acknowledged that Borchers meets the first prong of the *Advanced Bionics* framework. *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7-8 (Feb. 13, 2020) (precedential).

The Petition instead argued that the Examiner "erred in a manner material to the patentability of challenged claims" under the second prong of the *Advanced Bionics* framework. In particular, the Petition explains that with respect to *Becton Dickinson* factors (c), (e), and (f), the Examiner erred by overlooking Borchers' teaching with respect to interrupt coalescing. While Borchers does not refer to certain items as a "doorbell update status," a POSITA would have recognized that Borchers' response head update is a "doorbell update" status as evidenced by at least the background knowledge of a POSITA evidenced in the PCI standards. Petition, 90. The Petition presents the PCI standards as additional evidence, along with Dr. Min's testimony, to show that Borchers teaches what is claimed. Petition, 90.

By addressing *Becton Dickinson* factors (c), (e), and (f), the Petition's 325(d) analysis is consistent with the Board's recently designated precedential decision in *Ecto World LLC v. Rai Strategic Holdings, Inc.* IPR2024-01280 (May 19, 2025) (precedential). In short, neither Borchers nor any reference like Borchers was cited in a rejection. Nothing in the prosecution record shows the Examiner appreciated Borchers' teachings, particularly with the relevant perspective of a POSITA as evidenced by at least the PCI standards. And for the reasons explained in the Petition, Borchers presents a compelling case that the claimed interrupt coalescing concepts recited in the '968 patent were already known.

Patent Owner has failed to refute Petitioner's arguments on how the Office materially erred. Patent Owner argues that "[t]he 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." PO Brief, 41. But similarities between the PCI standards (from Petition) and the NVMe standards (in prosecution) relate to prong one—not prong two. In other words, showing similarities does not address the Petition's explanation as to how the Office materially erred with respect to patentability.

Again, the PCI standards provide evidence of how a POSITA would have understood Borchers' disclosure of a response head update as a doorbell status update. Petition, 77. There is no evidence from the prosecution history that the

Examiner appreciated Borchers' disclosure. And the Examiner's vague statements that the NVME standards do "not show the details of the steps performed by the memory controller as claimed" do not indicate that the Examiner considered the NVME teachings with respect to Borchers' response head update. Ex.1003, 157; PO Brief, 41.

Further, Patent Owner's reliance on the Examiner's review of the NVME standards is inconsistent with their position on the priority date. The Examiner looked at the NVME documents because he believed that the '968 patent was not entitled to its claimed priority date. Ex.1002, 116; Ex.1003, 30. The NVME standard that Patent Owner cites to (Ex.2019) was published on March 11, 2011. And while this predates the actual filing date of the '968 patent, it does not predate the provisional application date of August 16, 2021. *See* Ex.1001. Thus, Patent Owner's reliance conflicts with their stated intentions of seeking to antedate the Borchers reference.

VI. Conclusion

For the above reasons, Petitioner respectfully requests that the Director refrain from exercising her discretion to deny this petition, and instead pass it to a merits panel for consideration

Opposition to Patent Owner's Request for Discretionary Denial
IPR2025-00517 (U.S. Patent 8,554,968)

Respectfully submitted,

Date: June 24, 2025

/David M. O'Dell/

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Opposition to Patent Owner's Request for Discretionary Denial
IPR2025-00517 (U.S. Patent 8,554,968)

PETITIONER'S EXHIBIT LIST

Ex.1001	U.S. Patent No. 8,554,968 to Onufryk et al.
Ex.1002	Prosecution History of U.S. 8,554,968
Ex.1003	Declaration of Paul Min under 37 C.F.R. § 1.68
Ex.1004	Curriculum Vitae of Paul Min
Ex.1005	U.S. Patent Publication No. 2010/0262979 to Borchers et al. ("Borchers")
Ex.1006	PCI Local Bus Specification 3.0 (February 3, 2004) ("PCI")
Ex.1007	PCI Express 2.0 Base Specification Revision 0.9 (September 11, 2006), ("PCIe")
Ex.1008	U.S. Patent Publication No. 2011/0197003 to Serebrin et al. ("Serebrin")
Ex.1009	U.S. Provisional Patent No. 61/301,937, ("Serebrin Provisional"), Ex.1009
Ex.1010	Excerpts from the IEEE Dictionary
Ex.1011	Complaint, <i>Polaris PowerLED Technologies, LLC v. Western Digital Corporation et al.</i> 2:24-cv-02864 (C.D. CA)
Ex.1012	District Court Trial Statistics
Ex.1013	Director Vidal Memorandum re: Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation, June 22, 2022
Ex.1014	Internet Archive – PCI Express
Ex.1015	Internet Archive – PCI
Ex.1016	U.S. Patent Publication No. 2007/0245061
Ex.1017	U.S. Patent No. 7,924,914
Ex.1018	U.S. Patent Publication No. 2010/0185719

Opposition to Patent Owner’s Request for Discretionary Denial
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Ex.1019 (New)	Notice of Sotera Stipulations, Polaris PowerLED Technologies, LLC v. Western Digital Corporation et al. 2:24-cv-02864 (C.D. CA)
Ex.1020	Reserved.
Ex.1021 (New)	FAQs for Interim Processes for PTAB Workload Management, available at https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management (retrieved May 13, 2025).
Ex.1022 (New)	’968 Patent Assignment Recordation
Ex.1023 (New)	Plaintiff’s Disclosure of Asserted Claims and Infringement Contentions, <i>Polaris PowerLED Technologies, LLC v. Western Digital Corporation et al.</i> 2:24-cv-02864 (C.D. CA) (Served October 2, 2024)
Ex.1024-1031	Reserved
Ex.1032 (New)	Order Granting Defendants’ Motion to Stay, <i>Polaris PowerLED Technologies, LLC v. Western Digital Corporation et al.</i> 2:24-cv-02864 (C.D. CA) (issued June 23, 2025)
Ex.1033 (New)	“Chief Patent Board Judge Waves Off Workforce Attrition Concerns,” Bloomberg Law, May 7, 2025.
Ex.1034 (New)	“PTAB Judges Told To Get Ready For Layoffs,” Law 360 (March 21, 2025). https://www.law360.com/articles/2314328/ptab-judges-told-to-get-ready-for-layoffs
Ex.1035 (New)	Invalidity Contention Cover Pleading, <i>Polaris PowerLED Technologies, LLC v. Western Digital Corporation et al.</i> 2:24-cv-02864 (C.D. CA)
Ex.1036	Reserved
Ex.1037 (New)	Western Digital Investor Report
Ex.1038 (New)	Judge Wright Markman Orders
Ex.1039 (New)	“An Assessment of the Impact of the Inter Partes Review Process under the Patent Trial and Appeal Board on the US Economy,” The Perryman Group, available at

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	https://www.perrymangroup.com/publications/report/2021/9/23/an-assessment-of-the-potential-impact-of-expanding-inter-partes-review-ipr-under-the-america-invents-act-on-the-us-economy/
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CERTIFICATE OF SERVICE

The undersigned certifies, under 37 C.F.R. § 42.6, that service was made on the Patent Owner as detailed below.

Date of service June 24, 2025

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Documents served **Petitioner's Opposition to Patent Owner's Request for Discretionary Denial; Exhibits Ex.1019, Ex.1021-Ex.1023, Ex.1032-Ex.1035 and Ex.1037-1039.**

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