

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTEL CORPORATION,
ADVANCED MICRO DEVICES, INC.
Petitioners,

v.

ADVANCED CLUSTER SYSTEMS, INC.,
Patent Owner

IPR2025-00913
Patent No. 11,570,034

**BRIEF IN SUPPORT OF PATENT OWNER'S REQUEST FOR
DISCRETIONARY DENIAL**

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	THE <i>FINTIV</i> FACTORS AND ADDITIONAL MEMORANDUM FACTORS FAVOR DISCRETIONARY DENIAL	2
A.	Factor 1 Weighs Against Institution Because A Stay Has Not Been Granted In The Parallel Litigation And There Is Evidence That A Stay Would Not Be Granted If This IPR Was Instituted	3
B.	Factor 2 Weighs Against Institution Because The Trial In The Parallel Litigation Will Occur Before The Statutory Deadline For The Board’s Final Written Decision For The Challenged Patents.....	4
C.	Factor 3 Weighs Strongly Against Institution Because The District Court And The Parties Will Have Invested Significant Effort In The Parallel Litigation By The Time The Board’s Institution Decision Is Due.....	7
D.	Factor 4 Weighs Strongly Against Institution Because There Is Overlap Between This IPR And The Parallel Litigation And The IPR Would Not Be A “True Alternative” To The Parallel Litigation	11
E.	Factor 5 Weighs Against Institution Because The Petitioners In This Proceeding Are The Same As The Defendants In The Parallel Litigations	22
F.	Factor 6 Weighs Against Institution Because Additional Factors Weigh In Favor Of Discretionary Denial	22
i.	The Petition Relies On Conclusory, Speculative, And Unsupported Expert Analysis That Fails To Establish The Prior Art As Disclosing Nodes With A Plurality Of Processing Cores (Memorandum Factors 3 and 4).....	22
ii.	The Petition Fails To Carry Its Burden That Exhibits 1006-1008 and 1017 Qualify As Printed Publications (Memorandum Factor 3)	28

III.	35 U.S.C. § 325(D) PROVIDES AN ADDITIONAL INDEPENDENT BASIS FOR DISCRETIONARY DENIAL BECAUSE THE PETITION RELIES ON THE SAME OR SUBSTANTIALLY THE SAME ART AS ALREADY CONSIDERED AND REJECTED DURING PROSECUTION.....	44
A.	Institution Should Be Denied Under 35 U.S.C. § 325(d) Because The Petition Relies On The Same Or Substantially The Same Art As Already Considered And Rejected During Prosecution	45
i.	Petitioners’ Menon, Trefethen, And MPIref References Were Considered During Prosecution Of The ’034 Patent.....	45
ii.	Petitioners’ Additional RS6000 And POEref References Are Cumulative To The Prior Art Considered And Rejected During Prosecution Of The ’034 Patent	46
B.	The Petition Fails To Provide Any Evidence That The Examiner Erred In Considering The Asserted References During Prosecution Of The ’034 Patent	50
IV.	<i>GENERAL PLASTIC</i> IS NOT RELEVANT TO CONSIDERATION OF THIS REQUEST FOR DISCRETIONARY DENIAL.....	53
V.	ECONOMIC AND NATIONAL SECURITY INTERESTS ARE NOT BENEFITED BY INSTITUTION	54
VI.	THE IPR HISTORY OF THE “PATENT FAMILY” IS FACTUALLY WRONG AND LEGALLY IRRELEVANT	56
VII.	APA AND PROCEDURAL OBJECTIONS ARE MERITLESS AND SHOULD BE DISREGARDED.....	58
VIII.	CONCLUSION.....	59

TABLE OF AUTHORITIES

	Page(s)
<u>Cases</u>	
<i>Acquis, LLC v. Hon Hai Precision Indus Co. Ltd.</i> , No. 6:23-cv-264-ADA (W.D. Tex. May 31, 2024).....	10
<i>Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH</i> , IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020)	44, 45, 50, 52
<i>Alcatel-Lucent USA Inc. v. Oyster Optics, LLC</i> , IPR2017-02146, Paper 12 (PTAB Feb. 28, 2018)	53
<i>Allani v. Apple Inc.</i> , No. 6:24-cv-304-ADA (W.D. Tex. May 6, 2025).....	9
<i>AlmondNet, Inc. v. Amazon.com, Inc., et al.</i> , No. 6:21-cv-00898-ADA (W.D. Tex. June 19, 2025).....	10
<i>In re Am. Acad. of Sci. Tech Ctr.</i> , 367 F.3d 1359 (Fed. Cir. 2004)	28
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 11 (PTAB March 20, 2020).....	passim
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-0019, Paper 15 (PTAB May 13, 2020)	22
<i>Apple Inc. v. Masimo Corporation</i> , IPR2024-00293, Paper 11 (PTAB Jun. 27, 2024).....	54
<i>Applied Materials, Inc. v. Advanced Semiconductor Materials Am., Inc.</i> , 98 F.3d 1563 (Fed. Cir. 1996)	51
<i>Argentum Pharm. v. Research Corp. Tech. Inc.</i> , IPR2016-00204, Paper 19 (PTAB May 23, 2016)	39, 43
<i>Becton, Dickinson & Co. v. B. Braun Melsungen AG</i> , IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017).....	44, 45, 46, 51
<i>Blue Calypso, LLC v. Groupon, Inc.</i> , 815 F.3d 1331 (Fed. Cir. 2016)	31, 36, 41

<i>Content Square SAS v. Medallia Inc.</i> , IPR2022-00316, Paper 13 (PTAB Jul. 14, 2022).....	29, 37
<i>In re Cronyn</i> , 890 F.2d 1158 (Fed. Cir. 1989)	33
<i>Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.</i> , 800 F.3d 1375 (Fed. Cir. 2015)	28
<i>Gen. Plastic Indus. Co. v. Cannon Kabushiki Kaisha</i> , IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017)	53
<i>Hulu, LLC v. Sound View Innovations, LLC</i> , IPR2018-01039, Paper 29 (PTAB Dec. 20, 2019)	30
<i>Intellectual Ventures I LLC v. TCL Elects. Holdings Ltd.</i> , No. 6:23-cv-309-ADA (W.D. Tex. Sept. 10, 2024).....	10
<i>In re Klopfenstein</i> , 380 F.3d 1345 (Fed. Cir. 2004)	29
<i>Koninklijke Philips N.V. v. Zoll Med. Corp.</i> , 656 F. App’x 504 (Fed. Cir. 2016).....	31, 36, 42
<i>In re Lister</i> , 583 F.3d 1307 (Fed. Cir. 2009)	29
<i>Medivis, Inc. v. Novard Corp.</i> , IPR2023-00042, Paper 35 (PTAB Mar. 6, 2024).....	43
<i>Motorola Sols., Inc. v. Stellar, LLC</i> , IPR2024-01205, Paper 19 (PTAB Mar. 28, 2025).....	11, 16, 21
<i>Norian Corp. v. Stryker Corp.</i> , 363 F.3d 1321 (Fed. Cir. 2004)	35, 38
<i>ParkerVision, Inc. v. MediaTek Inc. et al.</i> , No. 6:22-cv-01163-ADA, 1, 48 (W.D. Tex. April 29, 2024)	10
<i>Samsung Elecs. Co., LTD v. Sionyx, LLC</i> , IPR2025-00065, Paper 16 (PTAB Jun. 6, 2025).....	<i>passim</i>

<i>Samsung Elecs. Co. v. Infobridge Pte. Ltd.</i> , 929 F.3d 1363 (Fed. Cir. 2019)	39, 41
<i>SAP Am., Inc. v. Cyandia, Inc.</i> , IPR2024-01432, Paper 14 (PTAB Apr. 7, 2025)	15, 21, 22
<i>Shenzen Tuozhu Tech. Co., Ltd. v. Stratasys, Inc.</i> , IPR2025-00354, Paper 11 (PTAB Jun. 12, 2025)	16
<i>SRI Int’l, Inc. v. Internet Sec. Sys., Inc.</i> , 511 F.3d 1186 (Fed. Cir. 2008)	29, 34, 36, 38
<i>TCL Elec. Holdings LTD v. Maxell, LTD</i> , IPR2025-00135, Paper 9 (PTAB May 20, 2025)	12
<i>Toshiba America Information Systems, Inc. et al. v. Wallelex Microelectronics Ltd.</i> , IPR2018-01538, Paper 11 (PTAB Mar. 5, 2019)	53
<i>TOT Power Control, S.L. v. AT&T, Inc. et al.</i> , No. 6:21-cv-00107-ADA, 1-2 (W.D. Tex. June 6, 2025)	10
<i>Upjohn Co. v. Mova Pharm. Corp.</i> , 225 F.3d 1306 (Fed. Cir. 2000)	23
<i>Velander v. Garner</i> , 348 F.3d 1359 (Fed. Cir. 2003)	28
<i>Western Dig. Corp. v. Spex Tech., Inc.</i> , IPR2018-00084, Paper 14 (PTAB Apr. 25, 2018)	53
<i>In re Wyer</i> , 655 F.2d, 221, 227 (CCPA 1981)	30
<u>Statutes</u>	
37 C.F.R. § 42.2	30
37 C.F.R. § 42.62(a)	30
37 C.F.R. § 42.65(a)	23
28 U.S.C. § 1498	55, 56

35 U.S.C. § 102	14
35 U.S.C. § 103	14
35 U.S.C. § 311(b)	28, 39, 44
35 U.S.C. § 314(a)	54, 56, 58
35 U.S.C. § 316(a)(11).....	4, 7
35 U.S.C. § 325(d)	2, 44, 45, 52

Other Authorities

Fed. R. Evid. § 801-802	34, 36, 43
Fed. R. Evid. § 803	34, 36, 43
Fed. R. Evid. §§ 901-902	42

PATENT OWNER’S EXHIBIT LIST

<u>Exhibit</u>	<u>Description</u>
2001	DocketNavigator Statistics for Motion Success for Stay Pending IPR (Post-Institution) for Judge Albright
2002	J. Albright Standing Order Governing Proceedings (OGP) 4.4 – Patent Cases (Jan 23, 2024)
2003	DocketNavigator Statistics for Time-to-Milestones for Judge Albright
2004	<i>Advanced Cluster Systems, Inc. v. Intel Corporation</i> , Amended Scheduling Order (D.I. 54)
2005	<i>Advanced Cluster Systems, Inc. v. Advanced Micro Devices, Inc.</i> , Scheduling Order (D.I. 36)
2006	Judge Albright Clerk emails
2007	<i>Allani v. Apple Inc.</i> , No. 6:24-cv-304-ADA (W.D. Tex. May 6, 2025) (D.I. 30)
2008	<i>Intellectual Ventures I LLC v. TCL Elects. Holdings Ltd.</i> , No. 6:23-cv-309-ADA (W.D. Tex. Sept. 10, 2024) (D.I. 44)
2009	<i>Acquis, LLC v. Hon Hai Precision Indus Co. Ltd.</i> , No. 6:23-cv-264-ADA (W.D. Tex. May 31, 2024) (D.I. 46)
2010	<i>ParkerVision, Inc. v. MediaTek Inc. et al.</i> , No. 6:22-cv-01163-ADA (W.D. Tex. April 29, 2024)
2011	<i>TOT Power Control, S.L. v. AT&T, Inc. et al.</i> , No. 6:21-cv-00107-ADA (W.D. Tex. June 6, 2025)
2012	<i>AlmondNet, Inc. v. Amazon.com, Inc., et al.</i> , No. 6:21-cv-00898-ADA (W.D. Tex. June 19, 2025)
2013	Intel Corporation’s Amended Invalidity Contention Cover Pleading (Apr. 25, 2025)
2014	[EXHIBIT NOT USED]

- 2015 AMD’s Preliminary Invalidity and Subject-Matter Eligibility Contentions Cover Pleading (Corrected Apr. 23, 2025)
- 2016 AMD’s Preliminary Invalidity Contention – Chart C-8
- 2017 Declaration of Dr. Melissa C. Smith Under 37 C.F.R. § 1.68
- 2018 *Curriculum Vitae* of Dr. Melissa C. Smith
- 2019 *Advanced Cluster Systems, Inc. v. Intel Corporation*, Order Appointing Technical Advisor (D.I. 71)
- 2020 *Advanced Cluster Systems, Inc. v. Advanced Micro Devices, Inc.*, Order Appointing Technical Advisor (D.I. 53)
- 2021 FAQ: The Sustainable Data Center – More Energy Efficient AI (available at <https://www.intel.com/content/www/us/en/content-details/791405/faq-the-sustainable-data-center-ai-use-case.html?wapkw=sustainability&DocID=791405>)
- 2022 NVIDIA Company Overview (May 2025) (available at <https://investor.nvidia.com/events-and-presentations/presentations/presentation-details/2025/Company-Overview-5-25/default.aspx>)
- 2023 Intel Corporation’s Answer and Counterclaims to First Amended Complaint, *Advanced Cluster Systems, Inc. v. Intel Corporation*, 7:24-cv-00245-ADA (W.D. Tex. Feb. 5, 2025) (D.I. 41)

I. INTRODUCTION

Advanced Cluster Systems, Inc. (“Patent Owner”) respectfully submits this brief requesting that the Director deny institution of the Petition for *inter partes* review (“Pet.”) filed by Petitioners Intel Corporation (“Petitioner Intel”) and Advanced Micro Devices, Inc. (“Petitioner AMD”) (collectively, “Petitioners”) pursuant to the Acting Director’s March 26, 2025, Memorandum on “Interim Processes for PTAB Workload Management” (the “Memorandum”).

The Petition seeks *inter partes* review of claims 1-30 of U.S. Patent No. 11,570,034 (the “’034 Patent,” Ex. 1001). The ’034 Patent and four other patents are the subject of patent infringement actions that Patent Owner initiated against Petitioners, which are currently pending in the Western District of Texas, Case No. 7:24-cv-245-ADA (the “Parallel Intel Litigation”) and Case No. 7-24-cv-00244-ADA (W.D. Tex.) (the “Parallel AMD Litigation”) (collectively, the “Parallel Litigations”). IPR2025-00913, Paper 5 at 1. The Petition is one of eight petitions collectively filed by Petitioners over the course of a month that challenge the patents asserted in the Parallel Litigations. *See* IPR2025-00913, Paper 5 at 2 (IPR2025-00794 and -00795 (the “Intel IPRs”); IPR2025-00862, and -00863 (the “AMD IPRs”);¹ IPR2025-00914, -00915, and -00916 (collectively with the Intel IPRs and

¹ The AMD IPRs rely on the same prior art and assert the same grounds that are asserted in the Intel IPRs. *See e.g.*, IPR2025-00862, Paper 4 at 1; IPR2025-00863, Paper 4 at 1.

the AMD IPRs, the “related IPRs”)). Patent Owner has requested that the Acting Director deny institution in each of the related IPRs. The Acting Director’s decision on Patent Owner’s request for discretionary denial for the earliest filed of the related IPRs (IPR2025-00794 and -00795) is expected on August 17, 2025 and, if necessary, decision on the merits on October 17, 2025. Many of the issues briefed here are similar to issues in Patent Owner’s request for discretionary denials in the related IPRs, however with respect to the instant Petition and *Fintiv* factor 2, the scheduled trial date, and estimated trial date based on statistics of the Western District of Texas, will occur *prior to* the statutory deadline for a final written decision.

By Petitioners’ own tactics it seeks to break up a single proceeding pending in the District Court into separate spaced apart proceedings before the PTAB—this is anything but efficient. As explained more fully below, the *Fintiv* factors, as well as additional factors identified in the Memorandum, favor discretionary denial. Moreover, 35 U.S.C. § 325(d) provides an additional independent basis for discretionary denial because the Petition relies on the same or substantially the same art as already considered and rejected during prosecution.

II. THE *FINTIV* FACTORS AND ADDITIONAL MEMORANDUM FACTORS FAVOR DISCRETIONARY DENIAL

The precedential order in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB March 20, 2020) (“*Fintiv*”) identifies six factors for the Board to consider in deciding whether to exercise discretion to deny institution based on parallel

proceedings involving the same patent. The Director's recently issued Memorandum identifies additional factors that Patent Owner addresses below. The application of the present facts to these factors demonstrates that the Board should exercise its discretion and deny institution here.

A. Factor 1 Weighs Against Institution Because A Stay Has Not Been Granted In The Parallel Litigation And There Is Evidence That A Stay Would Not Be Granted If This IPR Was Instituted

No stay has been requested in the Parallel Litigations, nor is there any indication that Petitioners will move for a stay. In addition, it is unlikely that the District Court (Judge Albright) would grant a stay if this IPR was instituted. Indeed, Judge Albright has denied twenty-three of thirty-one opposed motions (74%) to stay pending IPR since 2019. *See* Ex. 2001. Judge Albright has also stated that “the Court will not move the trial date except in extreme situations.” *See* Ex. 2002 at 9 (General Issue 6).

Nor would a stay make sense here. As explained below in Section II.D., Petitioners intend to litigate *the same prior art* in the Parallel Litigations that is advanced here, and the Federal Circuit's decision in *Ingenico* confirms that there will be no simplification of issues in the Parallel Litigations even if this IPR is instituted. *See Ingenico*, 2025 WL 1318188, at *7. Also, as explained below in Section II.C., even if this IPR is instituted, the parties and the District Court will have by that time already invested significant efforts and resources in construing the

very claims at issue in the Petition and will have served final infringement and invalidity contentions. It is highly unlikely that Judge Albright—who has stated a disinclination for staying cases pending IPR decisions—would stay the Parallel Litigation after having invested significant time and resources into construing the claims and after the parties have finalized their infringement and invalidity contentions.

Thus, the first factor weighs strongly in favor of the Board exercising its discretion against institution.

B. Factor 2 Weighs Against Institution Because The Trial In The Parallel Litigation Will Occur Before The Statutory Deadline For The Board’s Final Written Decision For The Challenged Patents

The statutory deadline for issuing a final written decision for this Petition is November 27, 2026. 35 U.S.C. § 316(a)(11). The trial in the Parallel Litigations is scheduled to begin two weeks *before* the statutory deadline—i.e., on November 16, 2026. *See* Ex. 2004 at 6; Ex. 2005 at 3. As *Fintiv* outlines, “[i]f 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*, IPR2020-00019, Paper 11 at 9. This alone weighs strongly in favor of the Board exercising its discretion to deny institution.

The factor is further weighted against institution because the District Court has stated that “[a]fter the trial date is set, the Court will not move the trial date

except in extreme situations.” *See* Ex. 2002 at 9 (General Issue 6). Indeed, the District Court has done nothing to suggest it intends to modify critical dates from what is set forth in the current schedule. For example, the District Court’s clerk recently confirmed the scheduled date for the *Markman* hearing despite the parties’ extending the due dates for their respective briefs. Ex. 2006 at 1, 3. And while the trial date in the Intel Litigation was initially adjusted to align with that of the AMD Litigation after it was transferred to Judge Albright, the District Court has shown no indication of postponing trial beyond November 16, 2026. Ex. 2004 at 6; Ex. 2005 at 3.

Indeed, the statistics from the Western District of Texas confirm that trial will likely occur in November 2026—consistent with the trial date originally scheduled in the AMD Litigation and as now scheduled in the Intel Litigation. In particular, the median time-to-trial for a jury patent infringement case before Judge Albright is 25.9 months. Ex. 2003. Applying this median time-to-trial results in a projected trial in late November 2026—which is still “at or around the same time as the projected statutory deadline.” *Fintiv*, IPR2020-00019, Paper 11 at 9. That the median time-to-trial for Judge Albright is near the actual scheduled trial date confirms that the currently scheduled date is realistic.

Moreover, as *Fintiv* outlines, “[i]f the court’s trial date is at or around the same time as the projected statutory deadline or even significantly after the projected

statutory deadline, the decision whether to institute will likely implicate other factors discussed herein, such as the resources that have been invested in the parallel proceeding.” *Fintiv*, IPR2020-00019, Paper 11 at 9 (citing factors 3 and 4). As explained below, the third factor strongly weighs against institution because by the time of the projected institution date, the District Court and the Parties will have invested substantial resources in the Parallel Litigations. *See infra* at Sec. II.C. Additionally, with respect to the fourth factor, there is complete overlap between invalidity references asserted in the instant Petition to challenge the validity of the ’034 Patent and those asserted in the Parallel Litigations—overlap that Petitioners’ *Sotera* declarations simply cannot overcome—given Petitioners’ reliance in the Parallel Litigations on the very same printed publications that are the subject of the instant Petition in addition to unpublished system prior art. *See infra* at Sec. II.D.

Petitioner Intel has suggested that the trial date will likely be moved to July 2027—i.e., well after the November 2026 timeframe that is actually scheduled and projected by Judge Albright’s specific median time-to-trial metric. *See* IPR2025-00794, Paper 10 at 20-21; IPR2025-00795, Paper 10 at 20-21. The suggestion relies entirely on unsupported speculation that adjustments to the makeup of Judge Albright’s docket will delay the trial date in the Parallel Litigations. But there is no reasonable nexus between the general makeup of the District Court’s docket and the trial date in the Parallel Litigation—and one should not be speculated. Indeed,

despite Petitioner Intel's speculation that Judge Albright's Austin division responsibilities will delay the Parallel Litigations, the facts reveal just the opposite: the Parallel Litigations remain on track with their *Markman* hearing scheduled for August 12, 2025. Ex. 2006 at 1, 3; Ex. 2004 at 4; Ex. 2005 at 2. Thus, nothing about adjustments to the makeup of the District Court's docket indicates that the trial date here will be postponed inconsistently with Judge Albright's median time-to-trial metric and the actually scheduled date of November 16, 2026.

Taking into consideration the currently scheduled (and realistic) trial date for the Parallel Litigation, as well as the unlikelihood that the date will change, factor 2 weighs strongly in favor of the Board exercising its discretion against institution.

C. Factor 3 Weighs Strongly Against Institution Because The District Court And The Parties Will Have Invested Significant Effort In The Parallel Litigation By The Time The Board's Institution Decision Is Due

This factor relates to 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" (and not at the time of the Petition as suggested by Petitioners). *Fintiv* at 9. The institution decision is due on November 27, 2025. 35 U.S.C. § 316(a)(11). By that time, the parties and the District Court will have invested significant efforts and resources in construing the claims at issue in the Petition, including completing claim construction briefing, conducting a *Markman* hearing and likely issuing a corresponding ruling on claim construction, and the parties finalizing and serving

infringement and invalidity contentions. More specifically, by that time, all of the following will have been completed in the Parallel Litigations:

1. Patent Owner's Preliminary Infringement Contentions (served Jan. 22, 2025);
2. Petitioner Intel's Preliminary Invalidity Contentions (served Apr. 9, 2025);
3. Petitioner AMD's Preliminary Invalidity Contentions (served Apr. 21, 2025);
4. Exchange of claim terms for construction (May 5, 2025);
5. Exchange of proposed claim constructions (May 19, 2025);
6. Patent Owner's First Supplemental Infringement Contentions to Intel (served May 19, 2025);
7. Disclosure of extrinsic evidence for claim construction (May 27, 2025);
8. Petitioners' Opening Claim Construction Briefs (Jun. 9, 2025);
9. Patent Owner's First Supplemental Infringement Contentions to AMD (served Jun. 20, 2025);
10. Patent Owner's Responsive Claim Construction Brief (Jun. 30, 2025);
11. Petitioners' Reply Claim Construction Briefs (Jul. 21, 2025²);

² The parties' agreement to extend the reply and sur-reply brief deadlines did not affect other calendared deadlines. Ex. 2006, at 1, 3.

12. Patent Owner's Sur-Reply Claim Construction Brief (Aug. 1, 2025);
13. Parties' Joint Claim Construction Statement submitted to the Court (Aug. 1, 2025);
14. Parties' technical tutorials submitted to the Court (Aug. 4, 2025);
15. *Markman* Hearing (Aug. 12, 2025);
16. *Markman* Ruling (expected Aug. 12-13, 2025, as Judge Albright typically issues a claim construction ruling the day of the *Markman* hearing or the next day, and a written order within a few weeks);
17. Opening of fact discovery (Aug. 13, 2025); and
18. Final Infringement and Invalidity Contentions (Oct. 8, 2025).

Ex. 2004; Ex. 2005. Moreover, the District Court has already appointed a technical advisor and has ordered the parties to send copies of their claim construction briefs and related materials to the technical advisor. Ex. 2019; Ex. 2020. Petitioners also recently took the deposition of Patent Owner's claim construction expert.

In addition, by the time of the *Markman* Hearing, "[t]he Court will [have] provide[d] preliminary constructions to the parties" Ex. 2002 at 9 (Para 2). *See Fintiv* at 9-10 ("if, at the time of the institution decision, the district court has issued substantive orders related to the patent at issue in the petition, this fact favors denial.").

Moreover, Judge Albright typically issues a final claim construction ruling shortly after the *Markman* hearing. *See, e.g.,* Ex. 2007, *Allani v. Apple Inc.*, No.

6:24-cv-304-ADA, at 1 (W.D. Tex. May 6, 2025) (order memorializing final claim construction issued 4 days after the *Markman* hearing); Ex. 2008, *Intellectual Ventures I LLC v. TCL Elects. Holdings Ltd.*, No. 6:23-cv-309-ADA, at 1 (W.D. Tex. Sept. 10, 2024) (order memorializing final claim construction issued 1 day after the *Markman* hearing); Ex. 2009, *Acquis, LLC v. Hon Hai Precision Indus Co. Ltd.*, No. 6:23-cv-264-ADA, at 1 (W.D. Tex. May 31, 2024) (order memorializing final claim construction issued the day of the *Markman* hearing). Petitioner Intel has previously suggested that Patent Owner speculates that Judge Albright will issue a claim construction order prior to an institution decision. *See, e.g.*, IPR2025-00794, Paper 10 at 23, 25-26. But Petitioner Intel incorrectly focuses on the date of the **formal** order of its handful of cited to exhibits, and ignores that the orders confirmed that “[d]uring [the *Markman*] hearing, **the Court informed the Parties of the final constructions for the disputed terms.**” Ex. 2010, *ParkerVision, Inc. v. MediaTek Inc. et al.*, No. 6:22-cv-01163-ADA, 1, 48 (W.D. Tex. April 29, 2024) (end of first paragraph memorializing final claim constructions issued at the *Markman* hearing); Ex. 2011, *TOT Power Control, S.L. v. AT&T, Inc. et al.*, No. 6:21-cv-00107-ADA, 1-2 (W.D. Tex. June 6, 2025) (same); Ex. 2012, *AlmondNet, Inc. v. Amazon.com, Inc., et al.*, No. 6:21-cv-00898-ADA (W.D. Tex. June 19, 2025) (same). Therefore, it is likely that the Court will issue its final claim constructions as to all five asserted patents prior to the expected date of the Institution Decision. *See Fintiv*, IPR2020-

00019, Paper 11 at 10 (“[D]istrict court claim construction orders may indicate that the court and parties have invested sufficient time in the parallel proceeding to favor denial.”).

The investment in the Parallel Litigations here is analogous to *Motorola Sols., Inc. v. Stellar, LLC*, where the Acting Director found that, among other activities, the parties having “served extensive infringement and invalidity contentions,” “filed claim construction briefs,” and “[t]he court also held a claim construction hearing and construed the disputed claims terms” amounted to “substantial time and effort the parties and the district court had invested in the parallel proceeding” such that *Fintiv* factor 3 strongly weighed against institution. IPR2024-01205, Paper 19 at 3 (PTAB Mar. 28, 2025).

Therefore, just as in *Motorola Sols.*, *Fintiv* factor three weighs strongly against institution here.

D. Factor 4 Weighs Strongly Against Institution Because There Is Overlap Between This IPR And The Parallel Litigation And The IPR Would Not Be A “True Alternative” To The Parallel Litigation

“[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* at 12. In the Parallel Litigation, Patent Owner has asserted infringement of claims 1-3, 8, 10, 24-25, 27-28 and 30. Ex. 2013 at 5; Ex. 2015 at 4. The Petition challenges all of those claims. Pet. at 14. Thus, there is complete

overlap between the claims raised in the Parallel Litigations and the instant IPR Petition.

Fintiv states that “if a petition involves the same prior art challenges but challenges claims in addition to those that are challenged in the district court, it may still be inefficient to proceed because the district court may resolve validity of enough overlapping claims to resolve key issues in the petition.” *Fintiv* at 13. In this case, 10 of the 30 claims challenged by the Petition are asserted in the Parallel Litigations. All of the additional claims challenged in the Petition depend from one of independent claims 1 or 25, each of which is asserted in the Parallel Litigations. Thus, the District Court would resolve enough overlapping claims to resolve key issues in the petitions. *See TCL Elec. Holdings LTD v. Maxell, LTD*, IPR2025-00135, Paper 9 at 19 (PTAB May 20, 2025) (finding 15 additional claims in IPR only “very slightly” weighed in favor of institution when all 15 of those claims depend directly or indirectly from the 5 claims asserted in Parallel Litigation). Accordingly, for this and the additional reasons discussed below, it would be inefficient to institute the instant IPR when the District Court is better suited to address the key invalidity issues and the IPR would not be a “true alternative” to the Parallel Litigations.

Further, Petitioners have asserted and plan to litigate the same prior art references in the Parallel Litigations as raised in the Petition (in combination with

system art). *Compare* Pet. at 14 (identifying two grounds based on: (i) Menon in view of Trefethen, RS6000, and POFref, and (ii) the same references further in view of MPIref) *with* Ex. 2016 (AMD’s Preliminary Invalidity Contentions, Exhibit C-8) at 1-2 (identifying documents Trefethen et al., Menon, RS/6000, POFref, and MPI: *A Message-Passing Interface Standard*, May 5, 1994 (“MPI Standard 1994”), what Petitioners refer to as MPIref in the Petition)³ at 4. Thus, there is complete overlap between invalidity references asserted to challenge the validity of the ’034 Patent in the Petition and those asserted in the Parallel Litigation.

Moreover, in view of the Federal Circuit’s *Ingenico* decision, Petitioners’ *Sotera* stipulations will not mitigate any overlap with the Parallel Litigations because Petitioners intend to litigate the same prior art in the Parallel Litigations that are raised here. For example, the *Sotera* stipulations: (1) will not prevent Petitioners from presenting duplicative arguments that the MultiMATLAB system alone or in combination with the same references presented in this Petition render any of the challenged claims invalid, and (2) will not ensure that the IPR would be a “true alternative” to the Parallel Litigations because the Petitioners’ invalidity contentions in the Parallel Litigations are much more expansive than the grounds presented in this Petition.

³ Intel has acknowledged that its “Claim Chart Exhibits ... are substantively identical to the same-numbered Claim Chart Exhibits served by [AMD]”). Exhibit 2013 at 4. Thus, Intel’s claim chart is “substantively identical” to Exhibit 2016.

Petitioners’ *Sotera* stipulations both state that Petitioners “will not pursue an invalidity defense in the [Parallel Litigations] that the claims subject to the instituted IPR are invalid based on grounds that were raised or reasonably could have been raised during the IPR (*i.e.*, any ground that could have been raised under 35 U.S.C. § 102 or 103 on the basis of prior art patents or printed publications).” Ex. 1042; Ex. 1046. But the *Sotera* stipulations both explicitly reserve the right in the Parallel Litigations “to assert invalidity of any claims of the asserted patents in this litigation based on *any other ground*.” *Id.* (emphasis added). Notably, this includes grounds relying on *the same prior art raised in the Petition*.

For example, the Cornell University MultiMATLAB system art (redbox annotated below) is system art corresponding to the references that form Petitioners’ invalidity grounds in the instant petition. *See* Ex. 2016 at 1 (“The MultiMATLAB system (‘MultiMATLAB’) was available no later than November 1997”); Ex. 2014 at 1 (same)⁴. *See also, Id.* (“MultiMATLAB, and the printed publications related to MultiMATLAB, anticipate and/or render obvious, alone or in combination with other references, each of the Asserted Claims of the ’034 patent as described in the chart”). The fact that Petitioners distinguish the MultiMATLAB system from the printed publications describing the same, confirms that Petitioners intend to rely,

⁴ *See* FN3.

at least in part, on the MultiMATLAB system as an invalidity theory in the Parallel Litigations.

In this respect, this case is analogous to *SAP America, Inc.* where the Board found “the [*Sotera*] stipulation has limited practical effect in reducing the overlapping efforts here and in the Texas litigation. Petitioners’ *Sotera* stipulation would not prevent Petitioners from asserting invalidity based on public use or sale of the [] system. Although such an invalidity challenge would be based on the system rather than publications about the system, the same publications asserted here describe how that system operated.” *See SAP Am., Inc. v. Cyandia, Inc.*, IPR2024-01432, Paper 14 at 9-10 (PTAB Apr. 7, 2025); *see also Samsung Elecs. Co., LTD v. Sionyx, LLC*, IPR2025-00065, Paper 16 at 14 (PTAB Jun. 6, 2025). In that case, the Board found the *Sotera* stipulation would not ensure that the IPR would be a “true alternative” to the parallel litigation and found that factor four favored discretionary denial.

Moreover, as the Federal Circuit recently explained, “IPR estoppel does not preclude a petitioner from asserting the same prior art raised in an IPR in district court, but rather precludes a petitioner from asserting grounds that were raised or reasonably could have been raised during an IPR.” *Ingenico*, 2025 WL 1318188, at *7. Grounds based on system prior art do not fall within the scope of an IPR. *Id.* at 6. As such, “IPR estoppel does not preclude a petitioner from relying on *the same*

patents and printed publications as evidence in asserting a ground that could not be raised during the IPR, such as that the claimed inventions was known or used by others, on sale, or in public use.” *Id.* at 14 (emphasis added). That is exactly what Petitioners intend to do here—rely on *the same patents and printed publications in the Parallel Litigation that it relies on in the Petition*, albeit “repackaged” as grounds based on *system prior art* that happens to be described by the publications, rather than grounds affirmatively based on the publications themselves.

Further, “Petitioner’s invalidity arguments in the district court [] are more expansive” than those advanced in the instant petition including unpublished system prior art and or that unpublished system prior art in combination with the prior art asserted in these proceedings. *See Shenzhen Tuozhu Tech. Co., Ltd. v. Stratasys, Inc.*, IPR2025-00354, Paper 11 at 2 (PTAB Jun. 12, 2025); *see also Motorola Sols.*, IPR2024-01205, Paper 19 at 4; *Samsung Elecs.*, IPR2025-00065, Paper 16 at 15 (finding factor four weighed strongly in favor of discretionary denial where *Sotera* stipulation did not ensure that IPR would be a “true alternative” because Petitioner’s invalidity arguments in the district court were more expansive and included combinations of the prior art asserted in the IPR with unpublished system prior art, which petitioner’s stipulation is not likely to moot). In both of Petitioners’ First Amended Preliminary Invalidity and Subject-Matter Eligibility Contentions served in the Parallel Litigations, 39 different prior art products and systems are identified.

3. Table 3: Prior Art Products and Systems⁵

Name	Developer, Provider, or Manufacturer ⁶	Short Name	Date in Public Use, on Sale, or Otherwise Available to the Public ⁷
PVMaple	Western University of Timișoara	PVMaple	Sept. 2005
Distributed Maple	Johannes Kepler University	Distributed Maple	Mar. 2003
Matlab*P	Massachusetts Institute of Technology	Matlab*P	Aug. 2002
Fastest Fourier Transform in the West with Message-Passing Interface	Massachusetts Institute of Technology	FFTW	March 2003
Intel Paragon Maple	ETH Zürich	Intel Paragon Maple	Oct. 1996
Stony Brook GPU Cluster for High Performance Computing	Stony Brook University	Stony Brook	Nov. 2004
AppleSeed-Pooch System	University of California, Los	AppleSeed-Pooch	Jan. 2000

Name	Developer, Provider, or Manufacturer ⁶	Short Name	Date in Public Use, on Sale, or Otherwise Available to the Public ⁷
	Angeles / Danger Research		
MultiMATLAB	Cornell University	MultiMATLAB	Nov. 1997
Microsoft Windows Compute Cluster Server 2003 System	Microsoft Corporation	CCS	June 2006
Supercomputing Engine for Mathematica System	Advanced Cluster Systems / Danger Research	SEM	July 2006
Brook and Merrimac System	Stanford University	Merrimac	Apr. 2006
Whitney Commodity Computing Testbed	NASA Ames Research Center	Whitney	Oct. 1997
MatlabMPI from MIT	Massachusetts Institute of Technology	MatlabMPI	Jan. 2003
pyMPI	Lawrence Livermore National Laboratories	pyMPI	July 2005
IBM Blue Gene system	IBM and Lawrence Livermore National Laboratory	IBM Blue Gene	Sept. 2004
Beowulf-style cluster	Forrest M. Hoffman and William W. Hargrove at Oak Ridge National Laboratory	Hoffman Beowulf	1999
The Beowulf project (http://www.beowulf.org/)	NASA	NASA Beowulf	1995
Transputer	INMOS	Transputer	Oct. 1985
iWarp	Intel / Carnegie Mellon University	iWarp	May 1990
pMatlab	Massachusetts Institute of Technology	pMatlab	June 2006

Name	Developer, Provider, or Manufacturer⁶	Short Name	Date in Public Use, on Sale, or Otherwise Available to the Public⁷
Cornell Multitask Toolbox for Matlab	Cornell University	CMTM	July 2000
PVMTB/MPITB	Universidad de Granada	PVMTB/MPITB	June 2002
MATmarks	University of Illinois Urbana-Champaign	MATmarks	Aug. 1999
MATLAB*G	National University of Singapore	MATLAB*G	Jan. 2004
Scalable POWERParallel	IBM	IBM SP	Feb. 1993
Cray T3E	Cray Research / SiliconGraphics	T3E	Nov. 1995
Network of Workstations	University of California, Berkeley	NOW	Mar. 1995
High Performance Virtual Machines	University of Illinois Urbana-Champaign	HPVM	July 2002
ASCI Red	Intel / Sandia National Laboratories	ASCI Red	June 1997
Computational Plant	Sandia National Laboratories	Cplant	June 2001
Pastry Distributed Hash Table	Microsoft Research	Pastry	Nov. 2001
Tapestry Distributed Hash Table	University of California, Berkeley	Tapestry	Jan. 2004
Chord Distributed Hash Table	Massachusetts Institute of Technology	Chord	Aug. 2001
Content-Addressable Network Distributed Hash Table	University of California, Berkeley	CAN	Aug. 2001
Shared and Remote memory access based Universal Matrix	Pacific Northwest National Laboratory	SRUMMA	Apr. 2004

Name	Developer, Provider, or Manufacturer⁶	Short Name	Date in Public Use, on Sale, or Otherwise Available to the Public⁷
Multiplication Algorithm			
Image Understanding Architecture	University of Massachusetts	IUA	September 1991
IBM Victor System	IBM	IBM Victor	1987
The NYU Ultracomputer	New York University	NYU Ultracomputer	1983

Ex. 2013 at 117-120 (highlighting and redbox annotation added); Ex. 2015 at 123-126 (same). Both Petitioners' preliminary invalidity contentions further provide the following table of claim charts against the '034 Patent.

Claim Charts for the '034 Patent

Exhibit	Primary Reference and/or System Prior Art for the '034 Patent
C-1	PVMaple
C-2	Distributed Maple
C-3	Matlab*P
C-4	FFTW
C-5	Intel Paragon Maple
C-6	Stony Brook
C-7	AppleSeed-Pooch
C-8	MultiMATLAB
C-9	CCS
C-10	SEM
C-11	Merrimac
C-12	Whitney

Exhibit	Primary Reference and/or System Prior Art for the '034 Patent
C-13	MatlabMPI
C-14	Abdennadher
C-15	pyMPI
C-16	IBM Blue Gene
C-17	Shawver
C-18	Hoffman
C-19	Jia 503
C-20	Omnibus obviousness chart

Ex. 2013 at 138-39; Ex. 2015 at 145-46 (same). Comparing Petitioners' claim charts for the '034 Patent to the above-highlighted prior art products/systems, the Petitioners each intend to rely on 15 prior art products/systems in the Parallel Litigations as part of their respective invalidity cases. Accordingly, Petitioners' invalidity arguments in the Parallel Litigations are significantly more expansive than those presented in the Petition.

Thus, Petitioners' *Sotera* stipulations have "limited [(if any)] practical effect in reducing the overlapping efforts here and in the Texas litigation." *See SAP Am.*, IPR2024-01432, Paper 14 at 9. "Petitioner's stipulation does not ensure that [this] IPR proceeding[] would be a 'true alternative' to the district court proceeding." *Motorola Sols.*, IPR2024-01205, Paper 19 at 3-4. To the contrary, the stipulation makes clear that Petitioners intend to litigate invalidity in both proceedings using the same references (and likely the same arguments), and to present substantial additional grounds in the Parallel Litigations far more expansive than those of the present Petition. *See Samsung Elecs.*, IPR2025-00065, Paper 16 at 15.

This factor therefore strongly favors the Board exercising its discretion against institution.

E. Factor 5 Weighs Against Institution Because The Petitioners In This Proceeding Are The Same As The Defendants In The Parallel Litigations

“Because the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial.” *Apple Inc. v. Fintiv, Inc.*, IPR2020-0019, Paper 15 at 15 (PTAB May 13, 2020). Petitioners cannot and do not dispute the complete overlap of the parties. Thus, this factor unquestionably favors discretionary denial. *SAP Am.*, IPR2024-01432, Paper 14 at 10.

F. Factor 6 Weighs Against Institution Because Additional Factors Weigh In Favor Of Discretionary Denial

i. The Petition Relies On Conclusory, Speculative, And Unsupported Expert Analysis That Fails To Establish The Prior Art As Disclosing Nodes With A Plurality Of Processing Cores (Memorandum Factors 3 and 4)

Each of the independent claims require that a node of the claimed computer cluster comprise a “...hardware processor with a plurality of processing cores...” *See, e.g.*, Ex. 1001 at 33 (29:52-53, 59-60), 34 (32:4-5, 10-11), 35 (33:9-10, 15-16 and 34:40-41). This limitation is specific and important: it recites a multicore processor, not a system with multiple processors or a multi-processor node. This is consistent with the disclosure of the '034 Patent explaining that a “Core 2 Duo® processor ha[s] two processing cores.” *See, e.g., id* at 22 (7:32-33). It is also consistent with the description of processor cores as “generally independent microprocessors, but more than one can be included in a single chip package.” *Id.*

at 21 (5:14-16). The Petition fails to show that any of the cited prior art references discloses or suggests this structure.

Instead, the Petition relies solely on conclusory, speculative, and factually unsupported expert testimony that mischaracterizes the disclosure of the RS/6000 reference (Ex. 1007) as describing a device with processors including *a plurality of processing cores*. See Pet. at 42-43 (claim element [1.4.1]); Ex. 1003, ¶ 209.⁵ The RS/6000 reference discloses no such thing, and Petitioners' conclusory expert testimony cannot create disclosure that is not there. "Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight." 37 C.F.R. § 42.65(a). See also, *Upjohn Co. v. Mova Pharm. Corp.*, 225 F.3d 1306, 1311 (Fed. Cir. 2000) ("Lack of factual support for expert opinion to factual determinations, however, may render the testimony of little probative value in a validity determination.") (quoting *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 294 (Fed. Cir. 1985)).

⁵ This same incorrect flawed analysis also applies to the claim limitations "...a third hardware processor with a plurality of processing cores," and "wherein the hardware processor comprises multiple processor cores." See, e.g., Pet. at 45-46 (claim element [1.5.1]), 77 (claim elements [25.5.1] and [25.6.1]), 80 (claim elements [28.6.1] and [28.7.1], 83 (claim element [30.1.2]); 86 (claim element [30.5.3.1]); Ex. 1003, ¶¶ 217, 364, 366, 386, 388, 416, 450.

Petitioners’ expert’s analysis on this point begins with a cropped quote from the RS/6000 reference. Ex. 2017, ¶ 32. Specifically, Petitioners’ expert alleges “RS6000 also teaches that each of the nodes in the IBM SP2 has ‘a Symmetric MultiProcessor (SMP)’ (*hardware processor*).” Ex. 1003, ¶ 209 citing to Ex. 1007, 2 (emphasis in original). But RS/6000 actually states that “[n]odes have either a Symmetric MultiProcessor (SMP) *configuration* or a uniprocessor configuration.” Ex. 1007, 2 (emphasis added). Petitioners’ expert’s omission of the word “configuration” in the cropped quote is important because the further discussion in the RS/6000 reference about the SMP is discussing the configuration of the IBM SP2 device, and namely the number of processors—not the number of *processing cores within* the processors. Ex. 2017, ¶ 29.

Confirming that the RS/6000 reference (Exhibit 1007) is discussing the number of processors and not the number of *processing cores within* its processors, the RS/6000 reference provides further clarification when discussing the “Description” and “Requirements and options” of the 375 MHz POWER3 SMP High Nodes (F/C/ 2058), which Petitioners’ expert identifies as the processor of the IBM SP2 device. *See* Ex. 1003, ¶ 209 citing to Ex. 1007, 9; Ex. 1007, 9 (“375 MHz Power 3 SMP High Node (F/C 2058).”). Ex. 2017, ¶¶ 27, 30. In describing the 375 MHz POWER3 SMP High Nodes, the RS/6000 reference expressly states that the “375 MHz POWER3 SMP High Nodes (F/C 2058) use PCI bus architecture *and*

have four, eight, twelve, or sixteen 375 MHz 630FP 64-bit *processors per node*. Ex. 1007, 9 (emphasis added); Ex. 2017, ¶ 30. The RS/6000 reference further explains that a “mandatory prerequisite[]” is “four processors (on one card, mounted in one card slot).” Ex. 1007 at 9-10; Ex. 2017, ¶ 31. In other words, at a minimum, at least one F/C 2058 card is required, which itself includes *four processors*. Ex. 2017, ¶ 31.

The RS/6000 reference further states that “[y]ou can order up to three additional four-processor cards (F/C 4350) to configure the node with *a total of sixteen CPUs*.” Ex. 1007 at 10 (emphasis added); Ex. 2017, ¶ 31. In other words, if the IBM SP2 is to be configured with four processors, it will have one four-processor card, if it is to be configured with eight processors, it will have two four-processor cards, if it is to be configured with twelve processors it will have three four-processor cards, and if it is to be configured with sixteen processors it will have four four-processor cards. Ex. 2017, ¶ 31. Contrary to Petitioners’ expert, the RS/6000 reference does not disclose or suggest that the Symmetric MultiProcessor (SMP) is a hardware processor with a plurality of processing cores. Ex. 2017, ¶¶ 31-34. Rather, it plainly states that the SMP Configuration can include “four, eight, twelve, or sixteen 375 MHz 630FP 64-bit processors.” Ex. 1007 at 10; Ex. 2017, ¶¶ 30-31.

Moreover, the RS/6000 reference states that Power3 processors, which are single core processors, are the heart of the SMP nodes in the RS/6000 architecture. Ex. 2017, ¶ 32; *see also* Ex. 1010 at 56-57. Figure 10 of the RS/6000 reference shows the use of single-core Power3 processors in an SMP Node System architecture:

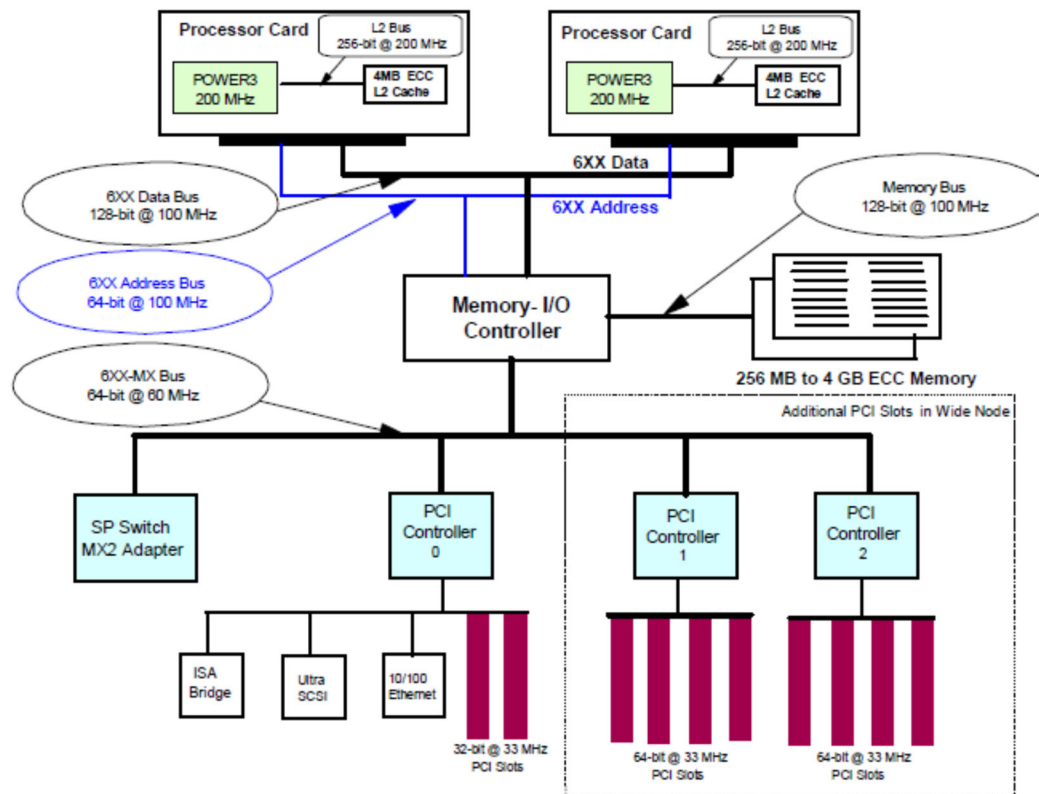


Figure 10. POWER3 SMP Node System Architecture

Ex. 1010 at Figure 10. Thus, contrary to the conclusory assertions of Petitioners' expert, the RS/6000 reference teaches single core processors used in an SMP configuration. The RS/6000 reference neither teaches nor suggests, alone or in

combination with any of the other cited references, a node having a “...hardware processor *with* a plurality of processing cores,” as required by the claims.⁶

In the related Intel IPRs, Petitioner Intel argues that the *hardware processor with a plurality of processing cores* limitation includes a configuration of single core processors on separate chip packages. IPR2025-00794, Paper 10 at 35-37. First, Petitioners did not provide or otherwise explain this novel claim construction position in the instant Petition. Pet. at 12-13. The Petition must be taken as written. Petitioners’ belated theory is therefore properly disregarded. Second, Petitioners’ proposed construction is contrary to how *processor cores* are described in the ’034 Patent. In particular, the ’034 Patent distinguishes *processor cores* from other microprocessors by noting that “more than one can be included in a single chip package.” Ex. 1001 at 21 (5:14-16). Thus, a POSITA would not understand the *hardware processor with a plurality of processing cores* limitation to include a configuration (e.g., the SMP configuration) of single core processors on different chips (e.g., the Power3 single core processors).

Accordingly, aside from the expert’s conclusory, speculative, and unsupported testimony, the Petition offers no basis to establish that the RS/6000 reference, either on its own, or in combination with Menon (Ex. 1005) renders obvious this claim

⁶ The same analysis applies to the limitation “wherein the hardware processor comprises multiple processor cores.” See Pet. at 83 (claim element [30.1.2]).

limitation. Because this testimony is conclusory and not supported by objective evidence, it is entitled to little or no weight. *See Velandier v. Garner*, 348 F.3d 1359, 1371 (Fed. Cir. 2003) (“[W]hat the [PTAB] consistently did was accord little weight to broad conclusory statements that it determined were unsupported by corroborating references. It is within the discretion of the trier of fact to give each item of evidence such weight as it feels appropriate.”) (citation omitted); *see also In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) (“[T]he [PTAB] is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations”) (citations omitted).

The Board must consider the petition as written, and as written the Petition fails to meet the initial burden that the asserted grounds render the claimed invention obvious. Because this affects all challenged claims, such failure is fatal to the Petition and strongly favors the Board exercising its discretion against institution.

ii. The Petition Fails To Carry Its Burden That Exhibits 1006-1008 and 1017 Qualify As Printed Publications (Memorandum Factor 3)

Under 35 U.S.C. § 311(b), a petitioner in an inter partes review may only challenge the claims of a patent based on “prior art consisting of patents or printed publications.” Petitioner has the initial burden of production to establish that there is prior art that renders the challenged claims unpatentable. *See Dynamic Drinkware*,

LLC v. Nat'l Graphics, Inc., 800 F.3d 1375, 1379 (Fed. Cir. 2015) (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008)).

Whether a reference qualifies as a “printed publication” involves a case-by-case inquiry into the facts and circumstances surrounding the reference’s disclosure to members of the public. *See In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004). The key inquiry is whether the reference was made “sufficiently accessible to the public interested in the art” before the effective filing date. *See In re Lister*, 583 F.3d 1307, 1311 (Fed. Cir. 2009) (quoting *In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989)). A reference is considered “publicly accessible” upon a satisfactory showing that the document has been “disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence[] can locate it.” *SRI Int’l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1194 (Fed. Cir. 2008) (citation omitted). That standard is not satisfied merely by a date, copyright, or internet address appearing on the face of the document. *See, e.g., Content Square SAS v. Medallia Inc.*, IPR2022-00316, Paper 13 at 26–27 (PTAB Jul. 14, 2022) (“Numerous Board decisions have held that simply pointing to a date, even a copyright date, is not sufficient at the institution stage to demonstrate public accessibility.”).

Rather, for institution of an inter partes review “the burden is on the petitioner to identify with particularity evidence sufficient to establish a reasonable likelihood

that the reference was publicly accessible before the critical date....” *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 16 (PTAB Dec. 20, 2019) (precedential). The Board emphasized that this standard is “far more than is required in typical notice pleading. . .,” and requires specific, substantiated evidence. *Id.*; see also *In re Wyer*, 655 F.2d, 221, 227 (CCPA 1981) (burden to show sufficient proof of public accessibility falls on the party asserting a reference as a prior art printed publication). Thus, the Petitioners must show with particularity that each reference was practically available with reasonable effort at the relevant time—simply showing that it existed somewhere on the internet or somewhere in a library is not enough.

Petitioners’ evidence establishing references as prior art must also comply with the Federal Rules of Evidence to justify institution. The Board’s Rules state that the “Federal Rules of Evidence shall apply to a proceeding,” 37 C.F.R. § 42.62(a), and defines “proceeding” to include a “preliminary proceeding” that “begins with the filing of a petition for instituting a trial.” 37 C.F.R. § 42.2.

Here, each asserted ground relies on some combination of Exhibits 1006-1008 and 1017—but the Petition fails to carry the burden of establishing that these exhibits qualify as “printed publications,” and in many instances Petitioners’ proffered evidence is not even admissible. The failure of any reference to qualify as a “printed publication” is fatal to all grounds of rejection relying on that reference. As none of

Exhibits 1006-1008 and 1017 qualify as “printed publications”, each of the asserted grounds should be rejected and institution of the instant Petition should be denied.

Exhibits 1007-1008: IBM Technical Manuals — RS/6000 and POEref

Exhibits 1007 (RS/6000) and 1008 (POEref) purport to be IBM technical manuals that Petitioners allege were “catalogued and indexed in IBM’s online document library” at particular URL addresses. Pet. at 15. However, the Petition provides no evidence of library indexing or cataloging. *See, e.g., Koninklijke Philips N.V. v. Zoll Med. Corp.*, 656 F. App’x 504, 529 (Fed. Cir. 2016) (“evidence of indexing or cataloging, [] while not prerequisites, serve as hallmarks of public accessibility”).

The Petition also fails to demonstrate that Exhibits 1007 and 1008 were publicly accessible by practical searchability, because it fails to offer any evidence that a query of any search engine before the critical date would have led to the particular URL addresses where the references were allegedly available. *See Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1350 (Fed. Cir. 2016) (“[T]he Board found that Groupon had failed to carry its burden of establishing that an interested party exercising reasonable diligence would have located Ratsimor. We agree. [...] The record is devoid of any evidence that a query of a search engine before the critical date, using any combination of search words, would have led to Ratsimor appearing in the search results.”).

Instead, the Petitioners rely on expert testimony that the IBM manuals were technically accessible by navigating specific sequences of hyperlinks (so-called “link chains”) across several purported IBM webpages—each with numerous potential hyperlinks and no table of contents or other navigational guide—to arrive at landing pages that link to the manuals. Ex. 1003, ¶¶ 119, 123. Petitioners’ expert has cobbled together this collection of web pages to attempt to show these “link chains” (Ex. 1038 (allegedly associated with Ex. 1007) and Ex. 1039 (allegedly associated with Ex. 1008)), but these web pages fail to corroborate his testimony because neither of these exhibits shows a link chain that was navigable (or that even existed) in its entirety at any point in time. Indeed, the purported IBM webpages constituting each of these exhibits list different archival dates. Ex. 1038; Ex. 1039 at 1-8. For example, the headers of the first three pages of Exhibit 1038 indicate the pages were captured by the web archive on August 14, 2001⁷; August 1, 2001; and August 22, 2001, respectively. Ex. 1038 at 1-3. The seventh page of the exhibit is from July 7, 2001, and the ninth page is from June 5, 2001. *Id.* at 7, 9. Petitioners provide no proof that these pages and links existed at the same time or were even navigable to Exhibit 1007 as suggested by its expert.

⁷ The archive.org explains that the archived URL includes an embedded date code identifying the date that the site was crawled. The date code translates as `yyyymmddhhmmss`, so for example in the URL <http://web.archive.org/web/19970126045825/http://www.archive.org/>, the date the site was crawled was January 26, 1997 at 4:58 am and 25 seconds. Ex. 1029 at ¶ 5.

Petitioners' reliance on a declaration from the Internet Archive fails for the same reason. Ex. 1029 at 63-72, 75-76. Here again the collection of web pages does not evidence that the alleged link chains were navigable at any point in time prior to the critical date to the URL address where the IBM manuals could allegedly be found.

Moreover, Petitioners' proposed navigation of "link chains" from IBM's homepage to the specific URL addresses where the IBM manuals were allegedly available fails to demonstrate public accessibility because it requires the searcher to already know that the desired content exists and is associated with IBM's company name and its product names (e.g., "RS6000," "AIX"), prior to searching. Petitioners provide no evidence that "reasonable diligence" is sufficient to navigate the purported "link chains" without advance detailed knowledge of the IBM website and specific product names—neither of which Petitioners allege are within the knowledge of a skilled artisan.

In re Cronyn, 890 F.2d 1158, 1161 (Fed. Cir. 1989) is instructive. In that case, a thesis document was alphabetically indexed in a library by the author's name, but the Federal Circuit found insufficient public accessibility because "the only research aid in finding the thesis was the student's name, which of course, bears no relationship to the subject of the student's thesis." Thus, the thesis "had not been cataloged or indexed in a meaningful way." *Id.* Likewise, here, the "accessibility"

purported by the Petition is insufficient to demonstrate public availability because the company name (“IBM”) and the IBM product names (“RS6000” and “AIX”) were not shown by the Petition to bear sufficient relationship to the cluster computing concepts that a researcher would have presumably searched and that Petitioners now challenge as allegedly obvious.

Thus, the Petition provides insufficient evidence that Exhibits 1007 (RS/6000) and 1008 (POEref) were “made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence[] can locate it.” *SRI*, 511 F.3d at 1194.

In addition, with respect to Exhibit 1008, Petitioners’ expert also alleges that the exhibit was distributed with the IBM SP2 parallel computing platform (“PE program”). Ex. 1003, ¶ 124. However, the expert does not purport to be a percipient witness of the alleged distribution. Instead, the expert simply parrots language from Exhibit 1008 and invites the Board to accept the parroted statement as true that Exhibit 1008 was distributed with the PE product. This is the poster child for hearsay under Fed. R. Evid. § 801-802, and no exception under § 803 has been identified or applies. Thus, the Board cannot rely on the parroted language as admissible evidence of the alleged distribution.

Even so, the Petition provides no evidence regarding the time or extent of the alleged distribution of the PE program. Moreover, Exhibit 1036 fails to corroborate

the alleged distribution, because the exhibit—which appears to be a third-party guide—says nothing about Exhibit 1008 or the PE program having been distributed, much less does the exhibit explain to who, when or how any such distribution occurred. Ex. 1036 at 13-14. It merely identifies “IBM AIX Parallel Environment – Operations and Use” as a typewritten manual under an ‘additional information’ heading. *Id.*

Thus, the Petition not only fails to demonstrate *public accessibility* of Exhibit 1008, it also insufficiently evidences the purported *dissemination* of Exhibit 1008 (POEref). *See, e.g., Norian Corp. v. Stryker Corp.*, 363 F.3d 1321, 1330 (Fed. Cir. 2004) (generalized testimony alleging distribution is insufficient evidence of actual dissemination). Therefore, Exhibits 1007 and 1008 do not qualify as “printed publications” and all grounds for challenging the ’034 Patent, each of which relies on Exhibits 1007 and 1008, are fatally flawed. This alone justifies denying institution of the instant Petition as to all grounds.

Exhibit 1017: Working Group Report—MPIref

Exhibit 1017 (MPIref) appears to be a draft of the final report of the Message Passing Interface Forum (MPIF), a group that was collaborating to propose technical features for the MPI Interface.

Petitioners allege that Exhibit 1017 was published on the MPIF website (<http://www.mpi-forum.org/docs/mpi-10.ps>). Pet. at 15-16. However, as with

Exhibits 1007-1008 discussed above, here too the Petition provides no evidence of library indexing or cataloging. *See, e.g., Koninklijke Philips N.V.*, 656 F. App'x at 529. The Petition also fails to demonstrate that Exhibit 1017 was publicly accessible by practical searchability because the Petition does not offer any evidence that a query of any search engine before the critical date would have led to the particular URL address where the reference was allegedly available. *See Blue Calypso*, 815 F.3d at 1350.

Petitioners instead allege that Exhibit 1017 was publicly accessible because it was “distributed ... using FTP mail servers.” Pet. at 15-16; Ex. 1003, ¶ 129. There is no evidence of this, and the allegation would be insufficient even if true. *See SRI*, 511 F.3d at 1196 (holding that a paper placed on an FTP server was not publicly accessible because the FTP server “did not contain an index or catalogue or other tools for customary and meaningful research”).

Petitioners’ theory relies on a statement on page iv of the exhibit immediately after listing contributing participants of MPIF, where the exhibit states: “The University of Tennessee and Oak Ridge National Laboratory made the draft available by anonymous FTP mail servers and were instrumental in distributing the document.” Ex. 1017 at 7. However, this statement is inadmissible as hearsay because it is being offered for the truth of the matter stated. Fed. R. Evid. § 801-802. Petitioners identify no exception under Fed. R. Evid. § 803 and none applies.

Even so, the document never states that it was made “publicly” available; it simply refers to making the draft “available.” Ex. 1017 at 7. Indeed, the statement alone cannot establish that Exhibit 1017 was made “publicly” accessible or available for several reasons. First, the “made the draft available” statement is presented in the past tense and therefore contradicts itself—i.e., Exhibit 1017 cannot have been made available before it was generated with that statement.⁸ Second, to the extent the “made the draft available” statement refers to some other draft, the availability of that other draft is irrelevant to the public accessibility of Exhibit 1017. Third, to the extent the “made the draft available” refers to some plan to make Exhibit 1017 available, it is not evidence that Exhibit 1017 was actually made available to anyone as planned—or when it was actually made available. For example, Dr. Bajaj does not testify that he or his team received a copy of Exhibit 1017 at any time prior to the critical date. Ex. 1003 at ¶103. Moreover, when read in context, the sentence upon which Petitioners rely appears to refer to limited distribution to the MPIF participants who were collaborating to develop Exhibit 1017—not the general public.

⁸ The May 4, 1994 date reflects the date Exhibit 1017 was printed—not necessarily published. Ex. 1017 at 2 (“This copy of the draft was processed by Latex on May 5, 1994.”). *See also, e.g., Content Square*, IPR2022-00316, Paper 13 at 26–27 (PTAB July 14, 2022) (“simply pointing to a date, even a copyright date, is not sufficient at the institution stage to demonstrate public accessibility”).

Indeed, Petitioners' expert's claims that Exhibit 1017 was available via "link chain" to a specific URL (<http://www.mcs.anl.gov/mpi/mpi-report.ps>) falls flat on closer inspection. First, entering the archived URL into a web-browser reveals that it is a direct-to-document-download page that does not appear to be linked to any usable webpage—much less to any webpage of the purported "link chain." Second, neither of the exhibits relied on by Petitioners' expert (i.e., Exhibit 1048 and Exhibit 1049) to show the alleged "link chain" actually show it. It is therefore unlikely that the URL could have been located through "reasonable diligence" by those who did not already know of it. *See SRI*, 511 F.3d at 1196 (holding that a paper placed on an FTP server was not publicly accessible because the FTP server "did not contain an index or catalogue or other tools for customary and meaningful research").

Petitioners' expert also alleges that distribution of MPI documents was common practice and that his research team would have received a copy of Exhibit 1017. Ex. 1003, ¶ 129. This bald assertion is uncorroborated—and the expert does not claim to have ever actually received a copy of Exhibit 1017 prior to the critical date. There simply is no evidence that the document was distributed to the general public prior to the critical date. *See, e.g., Norian Corp.*, 363 F.3d at 1330 (generalized testimony alleging distribution is insufficient evidence of actual dissemination).

Therefore, to the extent Exhibit 1017 was distributed, it was at some unknown point in time and through working groups and FTP to a limited group of recipients who already knew about the document. The PTAB has repeatedly held this type of limited dissemination to be insufficient to establish public accessibility for qualifying an IPR exhibit as a printed publication under 35 U.S.C. § 311(b). *See Argentum Pharm. v. Research Corp. Tech. Inc.*, IPR2016-00204, Paper 19 (Decision on Institution) at 11-12 (PTAB May 23, 2016) (dissemination to a limited group already having personal knowledge of a document does not establish public accessibility for qualification as a “printed publication”).

A similar factual situation was considered by the Federal Circuit in *Samsung Elecs. Co. LTD, v. Infobridge Pte. Ltd.*, 929 F.3d 1363, 1372 (Fed. Cir. 2019). In *Samsung*, despite remanding on a different legal issue, the Federal Circuit affirmed the PTAB’s holding that the alleged public accessibility of a working draft “WD4” of the High Efficiency Video Coding standard was not shown by on-line accessibility to the same group who collaborated to create the working draft, i.e., members of the Joint Collaborative Team on Video Coding (JCT-VC). *Id.* The ability of that group to find the WD4 working draft during the relevant time period did not imply that the interested public could do so by exercising reasonable diligence. *Id.* “The Board therefore properly focused on whether those outside of the JCT-VC knew about the JCT-VC website in considering whether posting the WD4 reference on the website

made it publicly accessible.” *Id.* The same rationale applies here to the Petitioners’ insufficient showing that MPIF participants could access Exhibit 1017 via an FTP server.

Likewise, here, Exhibit 1017 appears to have had at best a limited distribution to only the same MPIF participants who were collaborating to develop Exhibit 1017 and already knew about it. Therefore, analogous to the *Argentum Pharm.* holding and the *Samsung* holding, the Petition here fails to establish that Exhibit 1017 was distributed or practically accessible to the public at large.

For the foregoing reasons, the Petition has not shown that Exhibit 1017 was sufficiently publicly accessible for qualification as a printed publication. Therefore, Exhibit 1017 does not qualify as a “printed publication” and the proposed ground of rejection for claims 26 and 29 of the ’034 Patent, which relies on Exhibit 1017, is fatally flawed. This provides an additional independent reason for denying institution of the instant Petition as to Ground #2.

Exhibit 1006: Trefethen

Exhibit 1006 purports to be an article that Petitioners argue was made publicly accessible at a particular university internet address (www.cs.cornell.edu/Info/People/Int/multimatlab.html) — allegedly via hyperlink from the webpage of one of its authors. Pet. at 14-15. However, the purported webpage of the author, i.e., Ex. 1023, from which Exhibit 1006 is allegedly accessible, does not include any active

hyperlinks—much less a hyperlink to the specific internet address of Exhibit 1006. Thus, there is no evidence that Exhibit 1006 was reachable as alleged from the webpage of the author prior to the critical date.

Even so, public accessibility requires more than technical accessibility. *See Samsung*, 929 F.3d at 1369. Here, there is no evidence that interested members of the public could have found the particular internet address of Exhibit 1006 or the internet address of the author’s webpage with reasonable diligence if they did not already know about them. While Petitioners’ expert touts the prominence of the university, neither the expert nor the exhibit he relies on (i.e., Ex. 1033) claims that the website of the university department or the authors were known to interested persons. Nor does the Petition otherwise offer evidence or explanation for how an interested person would have located the particular URL addresses where Exhibit 1006 was allegedly accessible—only the bare and conclusory statement of Petitioners’ expert. Ex. 1003, ¶ 116. *See, e.g., Blue Calypso*, 815 F.3d at 1349 (article posted on author’s webpage was not a “printed publication” where there was no specific evidence that interested persons would know of the author’s webpage).

Moreover, there is no evidence that Exhibit 1006 was indexed or cataloged in a library or published in a journal prior to the critical date. While Petitioners’ expert testifies that Exhibit 1006 is “currently” available on the ACM digital library (Ex. 1003, ¶ 116), such testimony is facially insufficient as evidence of pre-critical date

availability or accessibility via the ACM digital library. Indeed, the sole exhibit relied on by the expert for his testimony, i.e., Ex. 1034, appears to be an unrelated excerpt explaining the digital library itself. The evidence thus fails to show that Exhibit 1006 was indexed or cataloged in a meaningful way prior to the critical date. *See, e.g., Koninklijke Philips N.V.*, 656 F. App'x at 529.

Therefore, Petitioners have failed to satisfy their burden of establishing that an interested member of the public in mid-2006 would have been aware of, or been able to find, Trefethen by exercising reasonable diligence. Accordingly, Exhibit 1006 does not qualify as a “printed publication” and all grounds for challenging the '034 Patent, each of which relies on Exhibit 1006, are fatally flawed. This provides an additional independent reason for denying institution of the instant Petition as to all grounds.

Citations by others (Ex. 1035, 1037)

Petitioners also rely on a purposed citation listing in Exhibits 1035 and 1037 and invite the Board to infer public availability based on hearsay references to certain documents as well as Petitioners' unsupported assertion that Exhibits 1006 and 1017 reflect those documents. However, Exhibits 1035 and 1037 are unauthenticated, and therefore inadmissible under Fed. R. Evid. §§ 901-902. Petitioners offer no custodian's declaration authenticating the content or explaining the source of these

documents, and does not identify any basis upon which they would be self-authenticating.

Exhibits 1035 and 1037 are also inadmissible as hearsay under Fed. R. Evid. §§ 801-802 because they are out-of-court statements offered to prove the truth of the matters asserted (namely, that the underlying references were publicly available at a certain time). Petitioners have not identified any hearsay exception under Fed. R. Evid. § 803 upon which to admit the out-of-court statements for their alleged truth. Therefore, Exhibits 1035 and 1037 cannot be relied upon by the Board as admissible evidence that documents cited therein were publicly accessible.

Even if considered, the mere fact that Exhibits 1035 and 1037 cite to documents that Petitioners allege are the Trefethen document and the MPIF report is insufficient to show that those documents were publicly accessible. *See, e.g., Medivis, Inc. v. Novard Corp.*, IPR2023-00042, Paper 35 (FWD) at 27-28 (PTAB Mar. 6, 2024) (holding that a Journal of Biomedical Informatics reference was not sufficiently shown to be publicly accessible by alleged citation by seven publications). Likewise, the citation of Exhibit 1006 (Trefethen) by Exhibit 1005 (Menon), does not qualify Trefethen as a printed publication that was practically accessible to the public before the critical date. Merely being cited later by another reference does not establish searchability and discoverability by skilled artisans using reasonable diligence before June 13, 2006. *See, e.g., Argentum*, IPR2016-

00204, Paper 19 at 11-12 (articles that cited a thesis were held insufficient to establish public accessibility of the thesis, where the articles' authors had personal knowledge of the thesis).

In sum, Petitioners' Exhibits 1006, 1007, 1008, and 1017 should be given no weight because Petitioners have not met their burden to show these are prior art printed publications. This failure is fatal under 35 U.S.C. § 311(b). Petitioners' attempt to establish public accessibility via Exhibits 1035 and 1037 also fails—not only are these exhibits inadmissible hearsay, but they do nothing to demonstrate genuine public availability of the underlying references. Accordingly, the Board should refuse to institute trial on any ground relying on Exhibits 1006, 1007, 1008, or 1017, and the grounds depending on them should be denied.

III. 35 U.S.C. § 325(D) PROVIDES AN ADDITIONAL INDEPENDENT BASIS FOR DISCRETIONARY DENIAL BECAUSE THE PETITION RELIES ON THE SAME OR SUBSTANTIALLY THE SAME ART AS ALREADY CONSIDERED AND REJECTED DURING PROSECUTION

Under section 325(d) of Title 35, “the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d); *see Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential); *Becton, Dickinson & Co. v. B.*

Braun Melsungen AG, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017) (precedential) (§ III.C.5, first para. only).

A. Institution Should Be Denied Under 35 U.S.C. § 325(d) Because The Petition Relies On The Same Or Substantially The Same Art As Already Considered And Rejected During Prosecution

“[T]he question of whether proffered art or arguments are ‘the same or substantially the same’ as art or arguments previously presented to the Office is a highly factual inquiry, which may be resolved by reference to the factors set forth in *Becton, Dickinson*.” *Advanced Bionics*, IPR2019-01469, Paper 6 at 7. The Board looks at the following factors with respect to the asserted art: (1) the similarities and differences between the asserted art and the prior involved during examination; and (2) the cumulative nature of the asserted art and the prior art during examination. *See Becton, Dickson*, IPR2017-01586, Paper 8 at 17–18 (§ III.C.5, first paragraph).

i. Petitioners’ Menon, Trefethen, And MPIref References Were Considered During Prosecution Of The ’034 Patent

“Under § 325(d), the art and arguments must have been previously presented to the Office during proceedings pertaining to the challenged patent.” *Advanced Bionics*, IPR2019-01469, Paper 6 at 7. Previously presented art includes art provided to the Office by an applicant, such as on an Information Disclosure Statement (“IDS”). *See id.* In addition, Petitioners’ Menon and Trefethen references were cited in an IDS submitted on July 7, 2022, during prosecution of the ’034 Patent. *See Ex. 1002 at 229 (cite No. 83), 231 (cite No. 116).* The Examiner

considered both references on August 25, 2022. *See* Ex. 1002 at 175 (cite No. 83), 177 (cite No. 116). Petitioners' MPIref was cited in an IDS submitted on August 4, 2021, during prosecution of the '034 Patent. *See* Ex. 1002 at 515 (cite No. 136). The Examiner considered MPIref on November 20, 2021. *See* Ex. 1002 at 462 (cite No. 136). While the Examiner did not enter any rejections based on Menon, Trefethen or MPIref after considering those references, the Examiner nonetheless considered and rejected the relevance of all of those references to the patentability of the '034 Patent.

ii. Petitioners' Additional RS6000 And POEref References Are Cumulative To The Prior Art Considered And Rejected During Prosecution Of The '034 Patent

The Board considers the cumulative nature of the asserted art and the prior art evaluated during examination. *See Becton, Dickson*, IPR2017-01586, Paper 8 at 17–18 (§ III.C.5, first paragraph). As discussed above, the base Menon reference and secondary Trefethen and MPIref references were considered by the Examiner without entering any rejections based on any of those references.

The RS/6000 reference is described in the Petition as part of an IBM installation guide for the IBM SP2 system used in the base Menon reference. Pet. at 21-22 (citing Ex. 1010, 6; Ex. 1007, 1-2; Ex. 1003, ¶118). In discussing the alleged motivation to combine RS/6000 with Menon, the Petition states that Menon teaches that MultiMATLAB uses the “IBM SP2, a modern high performance distributed

memory multiprocessor,” *see id.* at 24 (citing Ex. 1005, 5), and that RS/6000 provides “an overview of the IBM RS/6000SP,” which it notes is the same as the IBM SP2. *See id.* at 24-25 (citing Ex. 1007, 1; Ex. 1003, ¶78) and note 2 (citing Ex. 1010, 6). According to the Petition:

Menon and RS6000 together represent a combination of prior art elements (Menon describes the MultiMATLAB architecture on an “IBM SP2” and RS6000 provides details of that system) according to known methods (as taught by Menon) to yield the predictable result of MultiMATLAB implemented on an IBM SP2 having the physical attributes disclosed by RS6000. Ex.1005, Abstract, 6; Ex.1007, 1, 11; Ex.1003, ¶80.

Id. at 24-25. Thus, the Petition describes the RS/6000 reference as nothing more than an overview that simply provides details of an IBM system used in the base Menon reference. To the extent that the Petition relies on particular details of the IBM SP2 system allegedly disclosed in the RS/6000 reference, those details pertain to a system that the Petition concedes is already disclosed in Menon. Moreover, several IBM patents that describe the RS/6000 or SP2 also were submitted via IDS and considered by the Examiner. *See, e.g.*, US5881315A (“The various models of the RISC-based personal computers are described in many publications of the IBM Corporation, for example, ***RISC System/6000***, 7073 and 7016 POWERstation and POWERserver Hardware Technical Reference. Order No. SA23-2644-00.”), Ex. 1002 at 456 and 509 (Cite No. 4), and US6782537B1 (“International Business Machines Corporation's implementation of the MPI library is described in detail in

various additional publications. For example, reference an article in the IBM Systems Journal entitled “The Communication Software In Parallel Environment Of The **IBM SP2**,” Vol. 34, No. 2, pp. 205-215 (1995).”) Ex. 1002 at 456 and 509 (cite No. 17). The alleged IBM SP2-related teachings of the RS/6000 reference therefore are cumulative to the Menon reference and the cited patents listed above and do not change the nature of the SP2 system allegedly disclosed therein.

Moreover, as discussed in Section II.F.i above, the Petition impermissibly relies on conclusory, speculative, and unsupported expert analysis that mischaracterizes the disclosure of the RS/6000 reference. In particular, the Petition asserts that the combination of Menon and the RS/6000 reference renders obvious the claim limitation “a second node comprising a second hardware processor with a plurality of processing cores.” (Pet. at 42-43 (claim element [1.4.1])). Petitioners’ expert’s declaration advances a conclusory, speculative, and factually unsupported analysis that mischaracterizes the disclosure of the RS/6000 reference (Ex. 1007) as describing a hardware processor with a plurality of processing cores – a requirement of all of the challenged claims.⁹ The RS/6000 reference discloses no such thing, and Petitioner’s unsupported and conclusory expert testimony simply cannot create

⁹ This same incorrect flawed analysis also applies to the claim limitations “...a third hardware processor with a plurality of processing cores,” and “wherein the hardware processor comprises multiple processor cores.” See, e.g., Pet. at 45-46 (claim element [1.5.1]), 77 (claim elements [25.5.1] and [25.6.1]), 80 (claim elements [28.6.1] and [28.7.1]), 83 (claim element [30.1.2]); 86 (claim element [30.5.3.1]).

disclosure that is not there, nor can it change the fact that the RS/6000 reference is cumulative to the base Menon reference.

The POEref reference is described in the Petition as “IBM product documentation for ‘the IBM Parallel Environment (PE)’ and ‘its Parallel Operating Environment (POE).’” *Id.* at 22. According to the Petition, “Menon discusses using POE to initialize the MATLAB processes.” *Id.* (citing Ex. 1008, ix; Ex. 1005, 6; Ex. 1003, ¶¶121-122). In discussing the alleged motivation to combine POEref with Menon, the Petition states that Menon teaches that “MultiMATLAB uses ‘POE, IBM's Parallel Operating Environment,’” *see id.* (citing Ex.1005, 6), and a “POSITA seeking to understand MultiMATLAB would be motivated to review the documentation corresponding to the systems expressly discussed in Menon.” *See id.* (citing Ex. 1005, 6; Ex. 1003, ¶¶86-87). To the extent that the Petition relies on particular details of the IBM POE allegedly disclosed in the POEref reference, those details pertain to an environment that the Petition concedes is already disclosed in Menon. Thus, the Petition describes the POEref reference as nothing more than documentation corresponding to the systems discussed in the base Menon reference. The alleged IBM POE-related teachings of the POEref reference therefore are cumulative to the Menon reference and do not change the nature of the IBM POE allegedly disclosed therein. The POEref reference therefore is cumulative to the Menon reference.

All of the references relied on in the Petition thus were either (1) considered and rejected during prosecution of the '034 Patent or (2) cumulative to the references considered and rejected during prosecution of the '034 Patent. The Petition thus relies on the same or substantially the same art to that already considered and rejected during prosecution. Where, as here, the same or substantially the same art previously was presented to the office, the Director generally will exercise discretion not to institute *inter partes* review unless material error is shown. *Advanced Bionics*, IPR2019-01469, Paper 6 at 8-9.

B. The Petition Fails To Provide Any Evidence That The Examiner Erred In Considering The Asserted References During Prosecution Of The '034 Patent

The Petition fails to show material error by the Office in considering the prior art references at issue during prosecution, in accordance with the Board's definition:

[U]nder § 325(d), the Board uses the following 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. "If reasonable minds can disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred in a manner material to patentability." *Id.* at 9.

The Board looks at the following factors with respect to whether the Office committed material error: (1) the extent to which the asserted art was evaluated during prior proceedings, including whether the prior art was the basis for rejection; (2) whether the petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art; and (3) the extent to which additional evidence and facts presented in the petition warrant reconsideration. *See Becton Dickson*, IPR2017-01586, Paper 8 at 17–18 (§ III.C.5, first paragraph).

With respect to factor 1, the Menon, Trefethen and MPIref references were submitted by Patent Owner via IDSs and were considered by the Examiner as notated on the IDS forms. See Ex. 1002 at 175 (cite No. 83), 177 (cite No. 116), 229 (cite No. 83), 231 (cite No. 116), 462 (cite No. 136), 515 (cite No. 136). However, the Examiner did not enter any rejections based on Menon or Trefethen or MPIref after considering those references. The Examiner thus considered and rejected the relevance of all of those references to the patentability of the '034 Patent. “When a patent has been examined and duly granted, judicial review must give due weight to the presumption of validity. The presumption of validity is based on the presumption of administrative correctness of actions of the agency charged with examination of patentability.” *Applied Materials, Inc. v. Advanced Semiconductor Materials Am., Inc.*, 98 F.3d 1563, 1569 (Fed. Cir. 1996) (citations omitted). As discussed above,

the RS/6000 and POEref references were not explicitly considered by the Examiner, but are cumulative to the references considered and rejected by the Examiner.

With respect to factor 2, the Petition makes no mention of the prior consideration of Menon, Trefethen, and MPIref by the Examiner during prosecution. Neither does the Petition point to or provide any evidence of error by the Examiner with respect to any of the references relied on in the Petition. The Petition thus makes no showing of error by the Office and therefore fails to meet its burden to show material error.

With respect to factor 3, the Petition does not provide any additional evidence or facts that warrant reconsideration of any of the references previously considered by the Examiner alone or in combination with the cumulative RS/6000 and POEref references. The Petitioners thus have not shown that the Office erred in evaluating the art or arguments presented in the prior proceedings.

Therefore, Institution thus should be denied under 35 U.S.C. § 325(d) because the Petition relies on the same or substantially the same art considered during the prosecution of the '034 Patent and the Petition provides no evidence of material error by the Office in considering the submitted art. *See Advanced Bionics*, IPR2019-01469, Paper 6 at 7.

IV. *GENERAL PLASTIC* IS NOT RELEVANT TO CONSIDERATION OF THIS REQUEST FOR DISCRETIONARY DENIAL

The *General Plastic* factors do not apply to the instant Petition because neither of the Petitioners have previously brought an IPR petition related to the '034 Patent. IPR2025-00913, Paper 5 (Mandatory Notice) at 1-2. In particular, the Board, in formulating the *General Plastics* factors, “recognize[d] the potential for abuse of the review process by repeated attacks on” a patent by the *same* petitioner. *Gen. Plastic Indus. Co. v. Cannon Kabushiki Kaisha*, IPR2016-01357, Paper 19 at 16–17 (PTAB Sept. 6, 2017) (“General Plastics”). “Whether it is the same petitioner that is bringing a second petition [thus] is at the heart of the General Plastic factors.” *Toshiba America Information Systems, Inc. et al. v. Wallex Microelectronics Ltd.*, IPR2018-01538, Paper 11 at 20-21 (PTAB Mar. 5, 2019). Since neither Petitioner previously filed a petition regarding the '034 Patent, *General Plastic* is inapplicable and should be disregarded by the Board.

Even so, the Board has found that where “Petitioner has not previously filed a petition against the [subject] patent, the second through fifth [General Plastics] factors bear little relevance in this case.” *Western Dig. Corp. v. Spex Tech., Inc.*, IPR2018-00084, Paper 14 at 17 (PTAB Apr. 25, 2018); *Alcatel-Lucent USA Inc. v. Oyster Optics, LLC*, IPR2017-02146, Paper 12 at 12 (PTAB Feb. 28, 2018) (“Once resolution of factor 1 indicates that Petitioner had not previously filed a petition against the same patent, factors 2–5 bear little relevance.”). Because Petitioners

have not previously filed a petition against the '034 Patent, *General Plastic* factors 2-5 are irrelevant to the consideration of the instant request for discretionary denial of institution. With respect to *General Plastic* factor 6 (the finite resources of the Board) and 7 (the requirement to issue a final determination not later than 1 year after the institution decision), as discussed above, instituting an IPR for the present Petition would be an inefficient use of scarce Board resources as such an IPR would not be a “true alternative” to the Parallel Litigation. *See* Sec. II.D, *supra*.

The *General Plastic* factors should therefore be disregarded or otherwise weighed against institution, and institution should be denied for the reasons discussed herein in connection with the *Fintiv* and other Memorandum factors.

V. ECONOMIC AND NATIONAL SECURITY INTERESTS ARE NOT BENEFITED BY INSTITUTION

Petitioner Intel has previously suggested that discretionary denial should be avoided due to the economic significance of its products and their alleged role in national security. IPR2025-000794, Paper 10 at 13-15. Neither argument provides a basis to override the applicable discretionary factors under § 314(a).

With respect to economic impact, the Board has routinely denied institution in cases involving high-profile, widely used technologies. *See, e.g., Apple Inc. v. Masimo Corporation*, IPR2024-00293, Paper 11 at 21 (PTAB Jun. 27, 2024) (denying institution of a patent directed to a mobile pulse oximetry system asserted against Apple’s watches); *Id.*, Paper 7 at 2. Patent Owner is not aware of any

authority suggesting that commercial importance shields a patent challenge from discretionary denial, and such a rule would run directly counter to the Board’s efficiency mandate. Moreover, nothing in the executive branch statements quoted by Petitioner Intel (IPR2025-000794, Paper 10 at 12) immunize Petitioners from liability for patent infringement, nor can they. The PTAB is not a pay-for-play venue, and simply because Petitioners’ products may be used in the data center market does not support placing a thumb on the scale when determining whether to institute the Petition. Moreover, there are other sources for the products at issue that are not affected, including NVIDIA—the largest supplier by far. Ex. 2021 at 3 (Intel publication recognizing “that NVIDIA is the market share leader in AI training and certain HPC . . . computing workloads”); Ex. 2022 at 28 (NVIDIA company overview stating it is the “Leader in AI and HPC [High Performance Computing]”).

Petitioner Intel’s prior arguments did not identify any specific economic impact that denying institution would have—nor can it. The risk of additional costs or an injunction due to being found liable for patent infringement does not turn on whether the Petition is instituted. To the contrary, denying institution means only that Petitioners continue to litigate their same invalidity theories before the District Court—which is something they intend to do anyway. *See* Sec. II.D., *supra*.

Petitioner Intel’s alleged concern for national security is baseless and self-contradictory. In the Parallel Litigation, Petitioner Intel has invoked 28 U.S.C. §

1498—asserting that any use of the accused technology “by or for the United States” is shielded from liability. Ex. 2023 at 20 (¶ 98). That defense, if valid, already protects the government’s interests and removes any risk of injunction for such use by the government. Petitioner Intel cannot simultaneously argue that national security is at risk and that § 1498 immunizes its activities.

Moreover, Petitioner Intel’s prior arguments did not identify any specific impairment to national security that denying institution would have. Again, denying institution means only that Petitioners continue to litigate their invalidity theories before the District Court. National security is surely not impacted by venue, and the Board has not treated unsubstantiated claims of public interest as sufficient to override otherwise applicable discretionary factors—nor should it here.

For at least these reasons, economic and national security interests do not favor institution.

VI. THE IPR HISTORY OF THE “PATENT FAMILY” IS FACTUALLY WRONG AND LEGALLY IRRELEVANT

Petitioner Intel has previously suggested that institution should be granted for continuation patents that descend from a family of patents that were previously challenged in IPRs and found “likely unpatentable.” *See, e.g.*, IPR2025-00794, Paper 10 at 5–8. This argument misstates the record and misconstrues the legal relevance of prior institution decisions under 35 U.S.C. § 314(a).

None of the prior cited IPRs resulted in a Final Written Decision. Petitioner Intel relies on institution decisions in IPR2020-01608 ('289 Patent), IPR2021-00075 ('612 Patent), and IPR2021-00108 ('877 Patent), but omits that all three proceedings were terminated early by settlement. *See* IPR2020-01608, Paper 17 at 2 (PTAB Jun. 22, 2021) ('289 Patent) (“[T]he Board has not yet decided the merits of the proceeding or entered a final written decision”); IPR2021-00075, Paper 15, June 30, 2021, at pp. 2-3 ('612 Patent) (same), and IPR2021-00108, Paper 15, June 30, 2021, at pp. 2-3 ('877 Patent) (same). No tribunal evaluated the full merits, no testimony was taken, and no patent claims were found unpatentable.

Petitioner Intel ignores the most decisive fact: the Board has already considered and rejected Petitioner Intel’s very argument. While the Board chose to institute IPRs related to the '289, '612, and '877 Patents, the Board declined to institute two petitions challenging another patent in the patent family, i.e., the '768 Patent— IPR2021-00019 and IPR2021-00020. The implication is clear: the Board did not treat the '768 patent as just another patent in a weak family. Petitioner Intel’s attempt to create a “family weakness” narrative now is both legally unsupported and factually backwards.

Indeed, the Board does not presume that continuation or CIP patents are weak or duplicative merely because their predecessors were challenged. Petitioner Intel offers no legal support for the notion that a patent’s parentage weighs in favor of

institution under § 314(a). Nor is there any PTAB precedent holding that institution is favored simply because institution was once ordered for patents in the same family. If anything, Petitioner Intel's position is inconsistent with the governing statute—each petition must rise or fall on its own merits, based on the specific claims and grounds presented. 35 U.S.C. § 314(a).

Finally, the claims of the '034 Patent differ materially from those of the previously challenged family members. Petitioners cannot collapse all claim sets into vague high-level themes without analyzing the actual language or structural differences found in the claims. Indeed, the '034 Patent introduces claim limitations that are not recited in the challenged claims of the '289, '612, or '877 Patents.

The Petition must be evaluated on its own terms under the applicable frameworks—not based on alleged guilt by association. The Board should give no weight to this Petitioner Intel's argument.

VII. APA AND PROCEDURAL OBJECTIONS ARE MERITLESS AND SHOULD BE DISREGARDED

Petitioner Intel has also previously objected to the interim discretionary denial process. IPR2025-00794, Paper 10 at 59-61. To the extent Petitioners raise similar objections here, those objections should be disregarded. First, the interim process became effective March 26, 2025, nearly one month prior to Petitioners filing this Petition, so Petitioners cannot credibly claim reliance on the prior June 2022 Procedures. Second, the June 2022 Procedures were interim guidance that were not

adopted by formal rule making under the Administrative Procedure Act. As such, the USPTO was free to implement new guidance in the application of its precedential *Fintiv* decision—which has not changed even under the new interim process. Thus, Petitioners’ objections are meritless and the interim process governs.

VIII. CONCLUSION

Taken together, the *Fintiv* and Memorandum factors weigh strongly in favor of the Board exercising its discretion against institution. For the reasons noted above, Patent Owner respectfully submits that the Director should deny institution of all Grounds in the Petition.

Dated: July 28, 2025

Respectfully submitted,

/David P. Lindner/

David P. Lindner, Reg. No. 53,222
Counsel for Patent Owner
Advanced Cluster Systems, Inc.

CERTIFICATION UNDER 37 C.F.R. § 42.24

Pursuant to 37 C.F.R. § 42.24(d), I certify that this brief complies with the type-volume limits of 37 C.F.R. § 42.24 and the Director Memorandum because it contains 12,938 words, according to the word-processing system used to prepare this brief, excluding the parts that are exempted by 37 C.F.R. § 42.24 (including the table of contents, a table of authorities, a listing of facts which are admitted, a certificate of service or this certificate word count, and appendix of exhibits).

Dated: July 28, 2025

/David P. Lindner/

David P. Lindner, Reg. No. 53,222

Counsel for Patent Owner

Advanced Cluster Systems, Inc.

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned hereby certifies that I caused true and correct copies of the foregoing **BRIEF IN SUPPORT OF PATENT OWNER’S REQUEST FOR DISCRETIONARY DENIAL AND ADVANCED CLUSTER SYSTEMS, INC.’S EXHIBITS 2001-2013 AND 2015-2023** were served in their entirety on July 28, 2025 by filing this document through the U.S. Patent Office’s P-TACTS Filing System as well as causing true and correct copies be delivered by electronic mail on Petitioner’s lead and backup counsel at the following email addresses (as agreed by counsel for Petitioner):

Andrew S. Ehmke
David L. McCombs
David O’Dell
Gregory Huh
HAYNES AND BOONE LLP
andy.ehmke.ipr@haynesboone.com
david.mccombs.ipr@haynesboone.com
david.odell.ipr@haynesboone.com
gregory.huh.ipr@haynesboone.com

Brian E. Ferguson
Chaoxuan Charles Liu
James Kappos
WINSTON & STRAWN LLP
beferguson@winston.com
AMD-IPR@winston.com
ccliu@winston.com
jkappos@winston.com

Dated: July 28, 2025

/David P. Lindner/

David P. Lindner, Reg. No. 53,222
Counsel for Patent Owner
Advanced Cluster Systems, Inc.