

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SHENZHEN TUOZHU TECHNOLOGY CO., LTD.,
Petitioner

v.

STRATASYS, INC.
Patent Owner.

IPR2025-00585
U.S. PATENT NO. 11,167,464

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

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Discretionary Denial Under 35 U.S.C. § 314 is Appropriate	2
A.	The exercise of discretionary denial under the <i>Fintiv</i> Precedent is proper..	5
B.	Factor 1: Whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.....	6
C.	Factor 2: Proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision	8
D.	Factor 3: Investment in the parallel proceeding by the court and the parties.....	13
E.	Factor 4: Overlap between issues raised in the petition and in the parallel proceeding.....	15
F.	Factor 5: Whether the petitioner and the defendant in the parallel proceeding are the same party	20
G.	Factor 6: Other circumstances that impact the Board’s exercise of discretion, including the merits	20
III.	The Director Should Exercise Discretion To Deny Institution under Section 325(d).....	25
A.	Factors (a), (b), and (d): the Patent Office already considered substantially the same art and arguments, and thus these factors weigh in favor of discretionary denial.....	27
B.	Factors (c), (e), and (f): Petitioner has failed to show any material error by the Patent Office	32
IV.	The Merits of the Petition Are Weak	33
A.	No motivation to combine <i>Dahlin</i> and <i>Menchik</i> in Ground 1A	33
B.	Ground 1A (<i>Dahlin</i> and <i>Menchik</i>) does not teach claims 1 and 12.....	35
C.	Ground 1B (<i>Dahlin</i> , <i>Menchik</i> , and <i>Loughran</i>) does not teach claim 19....	37
D.	Toshiki (Ground 2) is not prior art.....	38
E.	No motivation to combine <i>Loughran</i> and <i>Toshiki</i> in Ground 2.....	40
F.	Ground 2 (<i>Loughran</i> and <i>Toshiki</i>) does not teach claims 1, 12, 19	41
V.	Additional Comments	44
VI.	Conclusion	45

TABLE OF AUTHORITIES**Page(s)****Federal Cases**

<i>10X Genomics, Inc. v. President and Fellows of Harvard College</i> , IPR2023-01299, Paper 15 (PTAB Mar. 7, 2024)	13
<i>Acorn Semi, LLC v. Samsung Elecs. Co.</i> , No. 2:19-CV-00347-JRG, 2020 WL 10284981 (E.D. Tex. Sept. 14, 2020)	7
<i>Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH</i> , IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020)	1, 26, 27, 28
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 11 (PTAB “Precedential” Mar. 20, 2020).....	<i>passim</i>
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 15 (PTAB “Informative” May 13, 2020).....	12, 20, 21
<i>Apple Inc. v. Vidal</i> , 63 F.4th 1 (Fed. Cir. 2023)	5
<i>Apple Inc. v. Vidal</i> , Case No. 20-CV-06128-EJD, 2024 WL 1382465 (N.D. Cal. Mar. 31, 2024).....	5, 6
<i>Arm Ltd. et al. v. Daedalus Prime LLC</i> , IPR2025-00207, Paper 10 (PTAB May 16, 2025)	12
<i>Becton, Dickinson & Co. v. B. Braun Melsungen AG</i> , IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017)	1, 26, 33
<i>Charter Commc’ns, Inc. v. Adaptive Spectrum and Signal Alignment, Inc.</i> , IPR2024-01379, Paper 16 (PTAB Apr. 17, 2025)	12
<i>Cuozzo Speed Techs. v. Lee</i> , 579 U.S. 261 (2016).....	3
<i>DeSilva v. DiLeonardi</i> , 181 F. 3d 865 (7th Cir. 1999)	41

<i>EClinicalWorks, LLC v. Decapolis LLC</i> , IPR2022-00229, Paper 10 (PTAB Apr. 13, 2022)	12, 13
<i>Ecto World, LLC v. RAI Strategic Holdings, Inc.</i> , IPR2024-01280, Paper 13 (May 19, 2025).....	28
<i>Facebook v. Windy City Innovations, LLC</i> , 973 F.3d 1321 (Fed. Cir. 2020)	22
<i>Harmonic Inc. v. Avid Tech., Inc.</i> , 815 F.3d 1356 (Fed. Cir. 2016)	3
<i>Ingenico Inc. v. IOENGINE, LLC</i> , No. 2023-1367, 2025 WL 1318188 (Fed. Cir. May 7, 2025).....	19
<i>Motorola Sols. v. Stellar, LLC</i> , IPR2024-01205, Paper 19 (PTAB Mar. 28, 2025)	16, 17, 18
<i>PowerOasis, Inc. v. T-Mobile USA, Inc.</i> , 522 F.3d 1299 (Fed. Cir. 2008)	39
<i>Purdue Pharma LP v. Faulding Inc.</i> , 230 F.3d 1320 (Fed.Cir.2000)	39
<i>SAS Inst., Inc. v. Iancu</i> , 584 U.S. 357 (2018).....	3
<i>TCL Communication Technology Holdings Ltd. v. DataQuill Limited</i> , IPR2020-00746, Paper 21 (Sept. 18, 2020).....	41
<i>Uniloc USA, Inc. v. Motorola Mobility LLC</i> , 2:16-cv-00992-JRG, Dkt. No. 125 (E.D. Tex. Apr. 5, 2017).....	7
<i>United States v. Dunkel</i> , 927 F.2d 955 (7th Cir. 1991)	38
<i>Xerox Corp. v. Bytemark, Inc.</i> , IPR2022-00624, Paper 9 (PTAB Aug. 24, 2022).....	22
Federal Statutes	
5 U.S.C. § 701(a)(1).....	5
35 U.S.C. § 312(a)(3).....	22, 41

35 U.S.C. § 314.....	1, 2, 4, 8
35 U.S.C. § 316(a)(11).....	8
35 U.S.C. § 325(d)	<i>passim</i>

Regulations

37 C.F.R. § 42.4(a).....	25
Consolidated Trial Practice Guide, 84 Fed. Reg. 64,280 (Nov. 21, 2019)	3, 15

Other Authorities

37 C.F.R. § 42.22	38
37 C.F.R. § 42.104(b)(4).....	23
H.R. Rep. No. 112–98, pt. 1 (2011), 2011 U.S.C.C.A.N. 67	15

EXHIBIT LIST

Exhibit No.	Description
2001	Docket Navigator – Judge Rodney Gilstrap Motion Success for Stay Pending IPR and Time to Milestones
2002	United States District Courts — Judicial Caseload Profiles for Eastern District of Texas (Sept. 30, 2024 and Dec. 31, 2024), available at https://www.uscourts.gov/data-news/reports/statistical-reports/federal-court-management-statistics
2003	Minute Entry for proceedings held before District Judge Gilstrap on Nov. 7, 2024, <i>Stratasys, Inc. v. Shenzhen Tuozhu Technology Co. Ltd.</i> , No. 2:24-cv-00644-JRG (E.D. Tex. Nov. 14, 2024)
2004	Discovery Order, <i>Stratasys, Inc. v. Shenzhen Tuozhu Technology Co. Ltd.</i> , No. 2:24-cv-00644-JRG, Dkt No. 35 (E.D. Tex. Dec. 2, 2024)
2005	Protective Order, <i>Stratasys, Inc. v. Shenzhen Tuozhu Technology Co. Ltd.</i> , No. 2:24-cv-00644-JRG, Dkt No. 36 (E.D. Tex. Dec. 3, 2024)
2006	e-Discovery Order, <i>Stratasys, Inc. v. Shenzhen Tuozhu Technology Co. Ltd.</i> , No. 2:24-cv-00644-JRG, Dkt No. 41 (E.D. Tex. Dec. 19, 2024)
2007	Invalidity and Ineligibility Contentions, <i>Stratasys, Inc. v. Shenzhen Tuozhu Technology Co. Ltd.</i> , No. 2:24-cv-00644-JRG, (E.D. Tex. Jan. 30, 2025)
2008	Transcript of Hearing on the Nomination of Howard Lutnick, of New York, to be Secretary of Commerce (Jan. 29, 2025)
2009	Order Denying Defendants' Motion to Dismiss for Failure to Join Indispensable Party, <i>Stratasys, Inc. v. Shenzhen Tuozhu Technology Co. Ltd.</i> , No. 2:24-cv-00644-JRG, Dkt. No. 53 (E.D. Tex. May 29, 2025)
2010	Plaintiff's Unopposed Motion to Consolidate Case No. 2:25-cv-00465-JRG with Case Nos. 2:24-cv-00644-JRG and 2:24-cv-00645-JRG, <i>Stratasys, Inc. v. Shenzhen Tuozhu Technology Co. Ltd.</i> , No. 2:24-cv-00644-JRG, Dkt. No. 54 (E.D. Tex. May 30, 2025)
2011	Lex Machina, Patent Litigation Report 2024 (Feb. 2024)
2012	U.S. District Court, Eastern District of Texas [Live] Calendar Events Set for 6/1/2026-8/1/2026

I. INTRODUCTION

Pursuant to the March 26, 2025 Memorandum by the Director that addresses “Interim Processes for PTAB Workload Management” (Director Memo), Patent Owner respectfully requests the Director exercise discretionary denial of institution. As explained below, several considerations favor discretionary denial of institution in this IPR.

First, the Director should exercise discretion to deny institution under 35 U.S.C. § 314(a) and the *Fintiv* factors. Among other reasons, the parallel district court litigation will reach a final resolution in a jury trial four months before any final written decision in this forum. Not surprisingly, significant progress has already been made in the parallel litigation, including the completion of Infringement Contentions, Invalidity Contentions, and numerous fact discovery requests, and the production of tens of thousands of pages of documents.

Second, the Director should exercise its discretion to deny institution under 35 U.S.C. § 325(d) and the factors set forth in *Advanced Bionics* and *Becton, Dickinson*. Two of the asserted references (*Menchik* and *Dahlin*) were considered by the Office during prosecution of the application leading to U.S. Patent No. 11,167,464 (“’464 Patent”). After careful consideration of *Menchik*, *Dahlin*, and other art, the Office allowed the ’464 Patent. Now, years later, Petitioner seeks to revisit this consideration. It relies on three grounds—Ground 1A (*Dahlin* and

Menchik), Ground 1B (*Dahlin, Menchik, and Loughran*), and Ground 2 (*Loughran and Toshiki*). Despite the multitude of challenges cumulative of the art previously considered by the Office, Petitioner has failed to show that the Office made a material error. Each of these combinations suffer from the same or similar deficiencies of not teaching all elements of independent claims 1, 12, and 19.

In summary, there are two independent reasons for discretionary denial. The exercise of discretionary denial power is appropriate under § 314 and under § 325(d). “To ensure that the PTAB continues to meet its statutory obligations as to *ex parte* appeals, while continuing to maintain its capacity to conduct AIA proceedings,” Patent Owner respectfully requests the Director to exercise her discretion to deny institution of IPR in this proceeding. *See* Director Memo at 1.

II. DISCRETIONARY DENIAL UNDER 35 U.S.C. § 314 IS APPROPRIATE

Institution of *inter partes* review is discretionary. 35 U.S.C. § 314 states that the “Director *may not* authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a) (emphasis added¹). As the Supreme Court has explained, § 314(a) “invests the Director with

¹ Emphasis added throughout unless otherwise stated.

discretion on the question *whether* to institute review.” *SAS Inst., Inc. v. Iancu*, 584 U.S. 357, 366 (2018). Pursuant to the Director’s discretion, the Board is “permitted, but never compelled, to institute an IPR proceeding.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016); *see also Cuozzo Speed Techs. v. Lee*, 579 U.S. 261, 273 (2016) (“the agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion”) (citing 35 U.S.C. § 314(a)). Irrespective of whether the minimum standards for institution are met, other reasons, such as “events in other proceedings related to the same patent,” may favor denying a petition. Consolidated Trial Practice Guide (84 Fed. Reg. 64,280 (Nov. 21, 2019)) (“Practice Guide”) at 58 (citing *NetApp, Inc. v. Realtime Data LLC*, IPR2017-01195, Paper 9 at 12–13 (PTAB Oct. 12, 2017) and explaining that the Board in *NetApp* denied institution under § 314(a) where “the Board likely would not have been able to rule on patentability until after the district court trial date”). Further, the Director’s Memo has set forth additional considerations, including:

- Whether the PTAB or another forum has already adjudicated the validity or patentability of the challenged patent claims;
- Whether there have been changes in the law or new judicial precedent issued since issuance of the claims that may affect patentability;
- The strength of the unpatentability challenge;
- The extent of the petition’s reliance on expert testimony;
- Settled expectations of the parties, such as the length of time the claims have been in force;

- Compelling economic, public health, or national security interests; and
- Any other considerations bearing on the Director's discretion.

Director's Memo at 2–3. Additionally, the Director also considers “the ability of the PTAB to comply with pendency goals for *ex parte* appeals, its statutory deadlines for AIA proceedings, and other workload needs.” *Id.* at 3 (citing 35 U.S.C. § 316(b)).

In determining whether to exercise its discretionary power under § 314(a), the Board balances a set of six factors, as articulated in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11, at 6 (PTAB “Precedential” Mar. 20, 2020) (“*Fintiv* Precedent”). On balance, the six *Fintiv* factors favor discretionary denial in this proceeding. Both Petitioner and Patent Owner are involved in litigations in the Eastern District of Texas (“Related Litigation”). The Court in the Related Litigation consolidated two cases (2:24-cv-00644-JRG and 2:24-cv-00645-JRG) between the same parties for pretrial issues under the lead case (2:24-cv-00644-JRG). *See* EX2010 at 5 (citing Dkt. No. 19). In addition, Patent Owner has submitted a request to consolidate a third case (2:25-cv-00465-JRG) with the first two cases. *See* EX2010. Petitioner does not oppose Patent Owner's request. *See id.* The Related Litigation, which involves substantially the same claims of the same patent, and invalidity challenges to the same patent (including the same prior art references as this Petition), will outpace this proceeding. Petitioner has failed to

provide any credible reason why the “efficiency and integrity of the system” would not be “best served” by discretionary denial. *Fintiv* Precedent at 6.

A. The exercise of discretionary denial under the *Fintiv* Precedent is proper

As an initial matter, the exercise of discretionary denial under the *Fintiv* Precedent is proper and should be followed. Petitioner's bare, unsupported assertions that the *Fintiv* Precedent “exceeds the Director's authority, is arbitrary and capricious, and was adopted without notice-and-comment rulemaking” are without merit. Pet. at 76. The Federal Circuit has already considered and rejected similar statutory and arbitrary-and-capriciousness challenges against *Fintiv*. See *Apple Inc. v. Vidal*, 63 F.4th 1, 12–14 (Fed. Cir. 2023) (affirming dismissal of plaintiff's challenges to *Fintiv* as being contrary to statute or arbitrary and capricious under 5 U.S.C. § 701(a)(1)).

Further, a U.S. District Court has already considered and rejected a similar challenge claiming that notice-and-comment rulemaking is required. *Apple Inc. v. Vidal*, Case No. 20-CV-06128-EJD, 2024 WL 1382465, at *13 (N.D. Cal. Mar. 31, 2024). As the Court explained, “the APA expressly excludes three categories of rulemaking from the notice-and-comment requirement: (1) interpretative rules; (2) general statements of policy; and (3) rules of agency organization, procedure, or practice.” *Id.* at 5 (citing 5 U.S.C. § 553(b)(4)(A)). Consistent with the APA,

“Courts have formulated this distinction to hold that ‘[t]he notice-and-comment requirements apply ... only to so-called “legislative” or “substantive” rules.’” *Id.* (quoting *Lincoln v. Vigil*, 508 U.S. 182, 195 (1993) (citations omitted)). Under this framework, the Court determined that “the *NHK-Fintiv* standard is a general statement of policy, rather than a substantive or legislative rule.” *Id.* at 13. Accordingly, “the Director was not required to conduct notice-and-comment rule making prior to designating the *NHK* and *Fintiv* decisions as precedential.” *Id.* (concluding that “the lack of such rule making does not render the *NHK-Fintiv* standard unlawful”) (citing 5 U.S.C. § 706(2)(D)).

Thus, the *Fintiv* Precedent is proper—it does not exceed the Director’s authority, is not arbitrary and capricious, and does not need to be adopted with notice-and-comment rule making.

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

Factor 1 weighs in favor of discretionary denial. In the Related Litigation involving both Petitioner and Patent Owner, there has been no request for a stay pending *inter partes* review and the judge in the case, Judge Rodney Gilstrap, has not granted a stay.

Petitioner contends that this factor is neutral because there is purportedly “no evidence that, if the action is maintained and a stay is requested, the court will

deny a stay.” Pet. at 76-77. However, Petitioner ignores the reality that it is highly unlikely that Judge Gilstrap will grant a stay in the Related Litigation pending IPR. As an initial matter, Judge Gilstrap denies the vast majority of motions to stay pending IPR. Since 2019, over 85% of such motions were denied. EX2001 at 1.

In past decisions denying a stay pending IPR, Judge Gilstrap has made it clear that motions to stay will be denied if filed before the “last of the patents-in-suit to be acted upon by the PTAB.” Order Denying Motion to Stay Pending Inter Partes Review, *Acorn Semi, LLC v. Samsung Elecs. Co.*, No. 2:19-CV-00347-JRG, 2020 WL 10284981 at *2 (E.D. Tex. Sept. 14, 2020). Similarly, Judge Gilstrap has denied motions to stay pending IPR when the IPR proceedings do not challenge every patent asserted in the case. *See, e.g., Uniloc USA, Inc. v. Motorola Mobility LLC*, 2:16-cv-00992-JRG, Dkt. No. 125 at 3 (E.D. Tex. Apr. 5, 2017) (denying a stay “given that the pending IPR petitions do not challenge every patent asserted in this case”).

Petitioner fails to provide any reason why the Court in the Related Litigation would depart from its practice of denying motions to stay filed before the last of the patents-in-suit are acted upon by the PTAB and before every one of the patents-in-suit are challenged in IPR. Indeed, Petitioner has overlooked the fact that the Related Litigation involves multiple patents besides the '464 Patent. *See* EX2010 at 5. Petitioner has not challenged asserted U.S. Patent No. 7,555,357.

Thus, the reality is that Judge Gilstrap is highly unlikely to grant a stay in the particular Related Litigation due to facts specific to the case and parallel IPR proceedings.

Accordingly, factor 1 of the *Fintiv* analysis weighs in favor of discretionary denial because a stay in the related proceeding has not been requested and the evidence indicates that the Court in the Related Litigation will not grant a stay even if Petitioner were to request one.

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

Given that trial in the Related Litigation is set to begin before any final written decision would be due, factor 2 favors discretionary denial. PTAB precedent makes clear that factor 2 favors discretionary denial “[i]f the court's trial date is earlier than the projected statutory deadline.” *Fintiv* Precedent at 9.

Here, the Court's trial date in the Related Litigation is earlier than the projected statutory deadline. The Court set a trial date for June 1, 2026. EX1020 at 1. The projected statutory deadline for any final written decision is October 7, 2026. *See* Notice of Filing Date Accorded to Petition and Time for Filing Patent Owner Preliminary Response, Paper 5 (setting preliminary response date for July 7, 2025); 35 U.S.C. § 314(b) (setting expected decision whether to institute review for 3 months after a preliminary response); 35 U.S.C. § 316(a)(11) (requiring a

final determination by 1 year after the decision whether to institute review, extendable by 6 months).

In general, the Court's trial date is consistent with both the U.S. court case statistics for the United States District Court for the Eastern District of Texas and statistics for patent cases before Judge Gilstrap, specifically. Since 2021, the median time from filing to trial for civil cases has varied between 19.0 and 23.0 months depending on the year and measurement period (e.g., by fiscal year or calendar year). *See* EX2002 at 1-2 ("From Filing to Trial (Civil Only)"). Applying these median timings to the present case, which was filed in August 2024 (*see* EX2010 at 5), trial would be expected between March 2026 and July 2026.

For patent cases before Judge Gilstrap, specifically, the median time from filing to trial is 21.7 months for cases filed since January 2008 (109 cases), 21.7 months for cases filed since January 1, 2019 (43 cases), and 24.1 months for cases filed since January 2022 (small sample size of 15 cases). EX2001 at 3, 5, 7. Applying these median timings to the present case, trial would be expected between May 2026 and August 2026. Thus, the median time to trial statistics are consistent with the actual trial date the Court set for the Related Litigation, which is set for over four months in advance of an expected final written decision deadline.

Petitioner asserts that this factor is neutral. Pet. at 77. First, Petitioner asserts that because there are multiple litigations scheduled to start jury selection on the same day there is no certainty as to which litigations “will be delayed/rescheduled.” *Id.* But Petitioner ignores the facts. There are over four months between the scheduled start of jury selection and any expected final written decision. Petitioner fails to present any evidence that the court cannot move forward with jury selection on the scheduled date, much less before any expected decision. Indeed, it appears that the calendar for Judge Gilstrap has ample opportunities to reschedule jury selection if the need arises. *See* EX2012 at 1-7 (listing events scheduled for June 1, 2026), 8-12 (listing events scheduled for June 22, 2026), 12-17 (listing events scheduled for July 6), 17-21 (listing events scheduled for July 20). Moreover, Petitioner ignores the fact that the vast majority of cases do not reach a jury trial. For instance, out of the 2,886 patent cases before Judge Gilstrap since 2019, only 43 of those cases have reached a jury trial. *See* EX2001 at 4-5; EX2011 at 19 (reporting only about 2% of district court patent cases that resolved from 2021 to 2023 reached trial). Thus, the Related Litigation will reach a jury trial well before any final written decision in this proceeding.

Second, Petitioner asserts that the date for jury selection “is not set in stone because there is a pending motion to dismiss the EDTX litigation in favor of litigation in another district (WDTX[.]).” Pet. at 77. However, since the filing of the

Petition, the district court has denied Petitioner's motion to dismiss the EDTX litigation. *See* EX2009. Further, Petitioner neglected to mention that it was Petitioner (and its real parties in interest) who filed the WDTX litigation concerning, among other things, the '464 Patent. Despite Petitioner's attempt to increase the number of proceedings addressing same patent, which only raises the risk of duplicative and inconsistent decisions, the court in the WDTX litigation transferred its case to the EDTX. *See* EX2010 at 6. Patent Owner has since moved to consolidate the third EDTX case with the first two for all purposes, including through trial, and Petitioner does not oppose. *See* EX2010 at 6. Thus, the WDTX litigation will not proceed over the dismissal of the EDTX litigation.

Third, Petitioner asserts that it has been diligent in preparing the petition in less than six months in light of its stipulation. Pet. at 77. Petitioner has failed to explain how its stipulation relates to its arguments regarding diligence. As explained below for Factor 4, Petitioner's stipulation does not eliminate the risk of duplicative and inconsistent decisions. Further, as explained below for Factor 3, there has been and will be substantial investment in the Related Litigation before a decision on whether to institute review and before any final written decision. Any purported diligence by Petitioner does change this result. Indeed, Petitioner had Patent Owner's infringement contentions for the challenged patent for several months before filing its Petition. *See* EX1020 at 6 (November 14, 2024)

Infringement Contentions); Paper 1 (filed on Feb. 6, 2025). And, prior to filing the Petition, Petitioner was able to prepare and file its invalidity contentions. *See* EX1020 at 5 (January 30, 2025 Invalidity Contentions). Thus, the risk of duplicative and inconsistent decisions remains despite Petitioner's stipulation and purported diligence.

Additionally, Petitioner fails to address numerous PTAB decisions that have weighed factor 2 in favor of discretionary denial when trial is expected to begin months in advance of the expected final written decision deadline. For example, the PTAB exercised discretionary denial in the *Apple Inc. v. Fintiv, Inc.* case in part because trial was scheduled to begin "approximately two months" before a final written decision. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15, at 12–13 (PTAB "Informative" May 13, 2020); *see also Charter Commc'ns, Inc. v. Adaptive Spectrum and Signal Alignment, Inc.*, IPR2024-01379, Paper 16, at 8-11 (PTAB Apr. 17, 2025) (finding factor 2 favors discretionary denial where range of projected trial dates would occur 2 to 7 months before any expected final written decision); *Arm Ltd. et al. v. Daedalus Prime LLC*, IPR2025-00207, Paper 10, at 2 (PTAB May 16, 2025) (granting discretionary denial request where range of trial dates would occur 1 to 6 months before any expected final written decision).

Other PTAB decisions have exercised discretionary denial with even shorter periods between a trial and final written decision. For instance, in *EClinicalWorks*,

LLC v. Decapolis LLC, the PTAB denied institution where trial would begin “roughly one to two months before any final decision.” Decision Denying Institution of Inter Partes Review, *EClinicalWorks, LLC v. Decapolis LLC*, IPR2022-00229, Paper 10 at 9 (PTAB Apr. 13, 2022). Consistent with previous PTAB decisions, such as those in *Apple* and *EClinicalWorks*, finding that a trial date set shortly before any final written decision weighs somewhat in favor of denial, factor 2 of the *Fintiv* analysis in this proceeding weighs in favor of discretionary denial, because it is likely that the jury trial in the Related Litigation will occur over four months before a final written decision would be due. *See also* Decision Denying Institution of Inter Partes Review, *10X Genomics, Inc. v. President and Fellows of Harvard College*, IPR2023-01299, Paper 15 at 17 (PTAB Mar. 7, 2024) (finding factor 2 weighing in favor of discretionary denial where district court trial would occur at least one month before a final written decision would be due).

D. Factor 3: Investment in the parallel proceeding by the court and the parties

The proceedings of the Related Litigation are well underway and remain in progress. Petitioner asserts that “there has been little investment by the court and the Markman hearing is scheduled for December 3, 2025, well after institution.” Pet. at 77-78. However, Petitioner fails to address the efforts undertaken by the

Court and parties thus far and efforts that will be undertaken before any decision on institution. Thus far, the Court has held a scheduling conference with the parties (EX2003), entered numerous orders in the case, including a docket control order, discovery order, e-discovery order, and protective order, and decided Petitioner's motion to dismiss, which was denied. EX1020, EX2003, EX2004, EX2005, EX2006, EX2010. In addition, the parties in the Related Litigation have (a) negotiated and proposed numerous orders, including the aforementioned orders, (b) exchanged initial disclosures (EX1020 at 6); (c) exchanged additional disclosures (EX1020 at 6); and (d) exchanged infringement, invalidity, and subject-matter eligibility contentions totaling well over 2,000 pages (*see* EX1020 at 5–6). Fact discovery is well underway with the parties having exchanged over 100 document requests, exchanged requests and responses to over 30 interrogatories, and produced documents exceeding 72,000 pages, and third-party discovery. In addition, the parties have briefed issues related to party joinder in relation to Petitioner's now-denied motion to dismiss. EX2010.

Besides these existing substantial investments in the Related Litigation, the parties will make further substantial investments in the Related Litigation before a decision whether to institute review is expected. Source code review and amended infringement contentions and invalidity contentions are anticipated based on the Court's local patent rules. *See* EX1020 at 5-6. Moreover, as explained above for

factor 2, the parties and Court in the Related Litigation will make additional substantial investments by starting a jury trial prior to the expected final written decision deadline. Similarly, the parties will have completed claim construction, fact discovery, expert discovery, the briefing of dispositive motions, and pretrial disclosures and conference. *See id.* at 2-4. Thus, any final written decision would simply revisit the jury's earlier findings regarding validity, the court's decision regarding claim construction, and other decisions before the trial court. Such duplicative efforts contradict the main purpose of *inter partes* review—to provide “quick and cost effective *alternatives* to litigation.” Practice Guide at 56 (quoting H.R. Rep. No. 112–98, pt. 1, at 40 (2011), 2011 U.S.C.C.A.N. 67, 69). Given the substantial investments made by the Court and parties, factor 3 weighs in favor of exercising discretionary denial.

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

The overlap in patent validity issues between the Petition (challenging claims 1-6, 10-19) and the Related Litigation is significant. There is significant overlap in claims with the vast majority of claims (claims 1-6, 12-15, 17-18) involved in the Related Litigation. There is also significant overlap in invalidity references and grounds. The Petition asserts 3 grounds involving various combinations of *Menchik*, *Dahlin*, *Loughran*, and *Toshiki*. Each of these references

in the Petition is included in the Invalidity Contentions along with many others.

See EX2007 at 13-14, 20-21, 31, 36, 93-107. Accordingly, there can be no dispute that all of the asserted grounds and references in this IPR are also at issue in the Related Litigation and that additional asserted grounds and references are at issue in the Related Litigation.

Petitioner asserts that this factor “favors institution as Petitioner has made a stipulation not to pursue the IPR grounds in District Court.” Pet. at 78. Since the filing of the Petition, Petitioner has shifted its position and now offers a stipulation not to pursue in district court the IPR grounds or any other ground that was raised or could have been reasonably raised in an IPR. However, as the Director recently clarified, such a stipulation “does not ensure” that an IPR proceeding would be a “true alternative” to the district court proceeding. *See* Order Granting Director Review, Vacating the Decision Granting Institution, and Denying Institution of *Inter Partes* Review, *Motorola Sols. v. Stellar, LLC*, IPR2024-01205, Paper 19 at 3–4 (PTAB Mar. 28, 2025) (denying institution despite Petitioner’s *Sotera* stipulation, in part, because “Petitioner’s stipulation does not ensure that the[] IPR proceedings would be a ‘true alternative’ to the district court proceeding” and because “Petitioner’s invalidity arguments in the district court are more expansive and include combinations of the prior art asserted in these proceedings with unpublished system prior art, which Petitioner’s stipulation is not likely to moot”).

Here, any stipulation by Petitioner is unlikely to address Petitioner's invalidity arguments in district court based on unpublished system prior art. In particular, Petitioner's invalidity contentions identify five system art references: KISSlicer System, Eden 260v, FORTUS 360mc/400mc and FDM 360mc/400mc, Objet260, and HP LaserJet 4100mfp. EX2007 at 31, 36. Petitioner's contentions also identify numerous combinations involving the references in this IPR and system art, including:

- “Loughran in combination with” Eden 260v, Fortus, KISSlicer, or Objet260;
- “KISSlicer in combination with” Menchik;
- “Menchik in combination with” Eden260v, Fortus 360mc, or Objet260; and
- “Dahlin in combination with” Eden260v, Eden 260v and Menchik, Fortus 360mc, or Fortus 360mc and Menchik.

Id. at 99-101. Petitioner also asserts that “it would have been obvious to combine any of the anticipatory references or exemplary combinations with any references in the following illustrative categories:”

- Tag Data References (including Loughran, Menchik, Dahlin, Eden 260v, Fortus 360mc, Objet260, or HP LaserJet 4100mfp);

- Operational Parameters References (including Menchik, Loughran, Dahlin, Eden 260v, Fortus 360mc, or Objet260);
- Diagnostic Test References (including Loughran, Menchik, Dahlin, Eden 260v, Fortus 360mc, Objet260, or HP LaserJet 4100mfp);
- Determining References (including Loughran, Menchik, Dahlin, Eden 260v, Fortus 360mc, Objet, or HP LaserJet 4100mfp); and
- Tag Data Content References (including Loughran, Menchik, Dahlin, Eden 260v, Fortus 360mc, or Objet260).

Id. at 101-107; *see also id.* at 36 (listing 12 anticipatory references). As a result, Petitioner is not restrained from asserting very similar obviousness theories in the Related Litigation that include only minor differences from the Grounds raised in this Petition by including unpublished system art. Given this advantage, it appears that Petitioner has presented an opportunity for it to have two bites at the apple. As such, nothing prevents Petitioner from simply asserting the same reference or references repackaged in different permutations or a nearly identical theory challenging the same claims of the same patent with simple variations that add unpublished system art. Indeed, Petitioner's invalidity contentions reflect Petitioner's ability to game the system with well over 35 such variations adding system art. *See* EX2007, 36 (12 alleged anticipatory references), 99-101 (12 alleged obviousness combinations involving art asserted in this IPR); *see also id.* at

101-107 (5 categories of additional obviousness combinations, each with three or more alleged system art). Thus, Petitioner's stipulation is not likely to moot Petitioner's numerous invalidity arguments in the District Court with unpublished system art.

Further, recent clarification from the Federal Circuit confirms that stipulations like Petitioner's are not a bar to asserting system prior art in district court, even if the system art is substantively identical to printed publications that were raised or could have been raised during IPR. Specifically, the Federal Circuit clarified that IPR estoppel, which is similar to Petitioner's stipulation, "does not preclude a petitioner from asserting that a claimed invention was known or used by others, on sale, or in public use in district court." *Ingenico Inc. v. IOENGINE, LLC*, No. 2023-1367, 2025 WL 1318188, at *7 (Fed. Cir. May 7, 2025). As a result, Petitioner remains free to game the system with variations of its IPR grounds that repackage the same substantive arguments with system art known, used by others, on sale, or in public use. In fact, Petitioner has expressed its intention to do so. In the Related Litigation, Petitioner has specifically sought discovery from Patent Owner regarding the Eden 260v, Fortus 360mc, and Objet260 on the basis that Petitioner has raised system art in its invalidity contentions.

While Petitioner's stipulation can reduce some of the overlapping issues, it does not eliminate the risk of overlap between the Related Litigation and this

proceeding. Thus, when factor 4 is considered with the other factors of the *Fintiv* analysis, discretionary denial is still favored.

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

Factor 5 favors discretionary denial. In the Related Litigation, Patent Owner is plaintiff and Petitioner is a defendant. As the PTAB explained in *Apple*, factor 5 weighs in favor of discretionary denial where “the petitioner and the defendant in the parallel proceeding are the same party.” *Apple*, IPR2020-00019, Paper 15 at 15. Petitioner erroneously states that this factor is neutral because “there is no indication that the parallel litigation will reach a jury trial before the conclusion of this IPR.” *See* Pet. at 78. As explained above for factor 2, the Related Litigation will reach a jury trial well before any expected final written decision in this proceeding. On balance, factor 5 favors discretionary denial as the same parties are involved in the Related Litigation.

G. Factor 6: Other circumstances that impact the Board's exercise of discretion, including the merits

The sixth factor of the *Fintiv* analysis also favors discretionary denial. Petitioner argues, without explanation or support, that “no potential overlap of issues” exists “between the IPR and parallel District Court action.” Pet. at 78. As explained above for factor 3, there is and will be substantial investment in the Related Litigation, with trial occurring before any final written decision. In

addition, as explained for factor 4, there is a substantial overlap of issues between the IPR and Related Litigation. Further, Petitioner is seeking a second bite at the apple to assert system art in the Related Litigation, including in combinations involving the very same art at issue in the IPR. Thus, there is a significant risk of overlap between the IPR and Related Litigation.

To the extent Petitioner's argument of no overlap is premised on its motion to dismiss in the EDTX case (*see* Pet. at 77), the district court has since denied the motion to dismiss. *See* EX2009.

Although the Petition fails to raise an argument regarding the merits of its Petition under factor 6, as explained below, Petitioner's asserted grounds lack merits as they each have identified weaknesses. *See Apple*, IPR2020-00019, Paper 15 at 15–17 (finding that merits “do not tip the balance in favor of Petitioner and instead also weigh in favor discretionary denial in a balanced assessment of all the circumstances”); *infra* Section IV (“The Merits of the Petition Are Weak”).

Further, several additional considerations² weigh in favor of discretionary denial. The Petition relies extensively on a 103-page expert declaration with well

² Whether considered part of factor 6 under the *Fintiv* framework or separately, the Director may consider such additional factors in discretionary denial. *See* Director Memo at 2–3.

nearly 120 citations to the declaration. *See* Petition and EX1003; *see also* Pet. at 1 (providing one citation to over 100 paragraphs of the expert declaration). Aside from content on the expert's background, materials considered, and discussion of applicable legal standards, the declaration largely mirrors the wording and argument made in the Petition. *Compare, e.g.,* EX1003, ¶108 *with* Pet. at 59, both arguing "Loughran's parameters that are retrieved based on the material identification number to include modeling parameters" without further explanation. Thus, Petitioner effectively seeks to rely on expert testimony that repeats its attorney argument to supplant the teachings of the references themselves. *See Facebook v. Windy City Innovations, LLC*, 973 F.3d 1321, 1340-41 (Fed. Cir. 2020) (affirming PTAB's decision upholding a claim as "the Board considered Facebook's expert's testimony but determined that it did not add materially to Petitioner's unpersuasive attorney argument"); *see also Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15–17 (PTAB Aug. 24, 2022) (designated precedential) (according "little weight" to testimony that contains a verbatim restatement of a petition's conclusory assertions without additional supporting evidence or reasoning).

Further, Petitioner in some circumstances seeks to improperly shift its burden to articulate its arguments in the Petition to its expert. *Infra* §IV.F (Petitioner fails to explain its arguments for claim 19 under Ground 2); *see* 35

U.S.C. § 312(a)(3) (“*the petition identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim*”) (emphasis added); 37 C.F.R. § 42.104(b)(4) (requiring that Petitioner provide “a statement of the precise relief requested for each claim challenged” including “*How the construed claim is unpatentable* under the statutory grounds identified The petition must specify *where each element of the claim is found* in the prior art patents or printed publications relied upon.”).

Further, the '464 Patent has been in force for nearly four years, which has set the expectations of the parties that it is valid and enforceable.

In addition, there have been no new changes in the law or new judicial precedent issued since the issuance of the '464 Patent that could affect patentability. Nor has Petitioner identified any such changes. Petitioner has failed to provide any basis to assert that a change in law or judicial precedent warrants revisiting the patentability of the challenged patent.

Additionally, compelling economic or national security interests may warrant discretionary denial. To the extent current or future directives from the Commerce Secretary, or his subordinates at the USPTO, instruct the Director to consider whether to exercise discretionary denial when a foreign company seeks to use the PTAB (a USPTO tribunal) to revisit the validity of a duly issued U.S.

patent invented by an individual in the United States and owned by a U.S. company, Patent Owner seeks to preserve any argument under such directives. Testimony by the Secretary of Commerce indicates that his directive may be that foreign entities, such as the Petitioner, are not permitted to use the PTAB, a tribunal of the United States Patent and Trademark Office, to challenge the duly issued '464 Patent, that was invented by inventors in the United States and assigned to companies in the United States. *See* EX2008 at 57; *see also* Video of Hearing on the Nomination of Howard Lutnick, of New York, to be Secretary of Commerce (Jan. 29, 2025) at 1:56:15, available at https://www.commerce.senate.gov/2025/1/full-committee-nomination-hearing_2_3. Accordingly, Patent Owner preserves its argument under any such directive for the Director to consider whether to exercise discretionary denial when a foreign company seeks to use the PTAB (a USPTO tribunal) to revisit the validity of a duly issued U.S. patent invented by an individual in the United States and owned by a U.S. company when the foreign company will receive due process on the validity of the patent in the U.S. federal court system.

While Petitioner will undoubtedly receive due process on validity of the '464 Patent in the U.S. federal court system, Petitioner effectively seeks to benefit from a duplicative proceeding before the PTAB. Doing so would tie up the PTAB's limited resources for Petitioner's benefit at the expense of patent owners

in this and other PTAB proceedings, including *ex parte* appeals and other AIA proceedings. As a consequence, Petitioner's request for review in this proceeding would frustrate the PTAB's ability to comply with pendency goals for *ex parte* appeals and statutory deadlines for other AIA proceedings. See 35 U.S.C. § 316(b). For this additional reason, the Director should exercise her discretion to deny institution.

III. THE DIRECTOR SHOULD EXERCISE DISCRETION TO DENY INSTITUTION UNDER SECTION 325(D)

As explained, institution of *inter partes* review is discretionary. Section 325(d) permits the Director to elect not to institute review if the challenge to the patent is based on matters previously presented to the Office. 35 U.S.C. § 325(d); *see also* 37 C.F.R. § 42.4(a). In particular, section 325(d) states:

In determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, 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.

Under § 325(d), the Board follows a two-part framework:

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

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential). Thus, the Director may exercise discretion not to institute *inter partes* review if the petitioner fails to show that the Office erred in a manner material to patentability. *See, e.g., Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 24 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (“*Becton, Dickinson*”).

In determining whether to exercise its discretionary power under § 325(d), the Director considers the following non-exclusive factors, as articulated in *Becton, Dickinson*:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which petitioner relies on the prior art;
- (e) whether petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the petition warrant reconsideration of the prior art or arguments.

See Becton, Dickinson, Paper 8 at 17–18; *see also Advanced Bionics*, Paper 6 at 9, n.10. “If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art or arguments previously were presented to the Office,

then factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office.” *Advanced Bionics*, Paper 6 at 10.

A. Factors (a), (b), and (d): the Patent Office already considered substantially the same art and arguments, and thus these factors weigh in favor of discretionary denial

The Petition raises three grounds. Ground 1A is based on *Dahlin* and *Menchik*, Ground 1B is based on *Dahlin*, *Menchik*, and *Loughran*, and Ground 2 is based on *Loughran* and *Toshiki*.

First, the Office already considered *Menchik* (used in Grounds 1A and 1B) and *Dahlin* (also used in Grounds 1A and 1B) during prosecution. *Menchik* and *Dahlin* are each cited on the face of the '464 Patent. *See* EX1001 at 1 (citing *Dahlin* under References Cited) and 2 (citing *Menchik* under References Cited). Each of those references was submitted by the applicant in an information disclosure statement (IDS) dated February 28, 2020. *See* EX1002 at 88 (listing *Menchik*), 87 (listing *Dahlin*), 90 (providing date). Shortly thereafter, on October 1, 2020, the examiner expressly considered each of these references. *See id.* at 109 (listing *Dahlin*, without a line through, with note that “ALL REFERENCES CONSIDERED” EXCEPT WHERE LINED THROUGH), 110 (listing *Menchik*, without a line through, with note that “ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH”), 112 (providing date). Thus, the first part of the *Advanced Bionics* framework is satisfied because the asserted *Menchik* and

Dahlin references were previously presented to the Office in an IDS. *See Ecto World, LLC v. RAI Strategic Holdings, Inc.*, IPR2024-01280, Paper 13, at 4 (May 19, 2025) (designated precedential as to § A on May 19, 2025) (“Challenging the claims using the same prior art that was previously presented on an IDS is sufficient to satisfy the first part of the *Advanced Bionics* framework.”).

Further, *Menchik* and *Dahlin* were expressly used by the examiner in searching for art. *See* EX1002 at 114–31 (EAST Search History dated Oct. 1, 2020) (referencing *Menchik* (US2006/0127153) at 117 (S18), 127 (S126, S127, S128, S129), 128 (S134), 129 (S156), 130 (S166 and S167) and *Dahlin* (USP 6,022,207) at 119 (S47), 120 (S52), 122 (S73), 124-25 (S97); EX1002 at 156-74 (EAST Search History dated Mar. 24, 2021) (referencing *Menchik* (US2006/0127153) at 157 (S18), 167 (S126, S127, S128), 168 (S129, S134), 169-70 (S156, S166, S167) and *Dahlin* (USP 6,022,207) at 159 (S47), 160 (S52), 162-63 (S73), 164-65 (S97)). Thus, the examiner considered and used the *Menchik* and *Dahlin* references during prosecution to search for art.

The examiner allowed the claims of the '464 Patent over the art considered, including *Menchik* and *Dahlin*. *See id.*; *see also* EX1002 at 191-92. Thus, *Menchik* and *Dubois* were already considered by the Office during prosecution.

Second, similar to the art considered during prosecution, which did not teach elements of the independent claims (e.g., “performing a diagnostic test to

determine whether the operational parameter is suitable for the three-dimensional printer” and controlling operation of the printer “when the operational parameter is suitable for the three-dimensional printer according to the diagnostic test” for claim 1), the references in Ground 1A (*Dahlin* and *Menchik*), Ground 1B (*Dahlin*, *Menchik*, and *Loughran*), and Ground 2 (*Loughran* and *Toshiki*) do not teach all elements of the independent claims.

Like the art considered during prosecution, each of the Grounds do not teach or suggest claim element 1[c] (“performing a diagnostic test to determine whether the operational parameter is suitable for the three-dimensional printer; and”) and 1[d] (“when the operational parameter is suitable for the three-dimensional printer according to the diagnostic test, controlling operation of the three-dimensional printer during the fabrication process with the controller according to the operational parameter to fabricate an object with the three-dimensional printer.”). Independent claims 12 and 19 recite similar claim elements as claim 1. *See* claim 12[d] (“... perform a diagnostic test to determine whether the operational parameter is suitable for the three-dimensional printer ...”), 12[e] (“... when the operational parameter is suitable for the three-dimensional printer according to the diagnostic test, control operation of the three-dimensional printer during the fabrication process according to the operational parameter to fabricate an object with the three-dimensional printer.”), 19[e] (“performing a diagnostic test to

determine whether the operational parameter is suitable for the three-dimensional printer; and”), and 19[f] (“when the operational parameter is suitable for the three-dimensional printer according to the diagnostic test, controlling operation of the three-dimensional printer during the fabrication process according to the operational parameter to fabricate an object with the three-dimensional printer.”).

As explained in the section below, Petitioner has failed to explain how the *Dahlin-Menchik* combination in Ground 1A teaches “determining an operational parameter ...” (claim elements 1[b] and 12[c]), much less how the combination teaches “performing a diagnostic test to determine whether the operational parameter is suitable for the three-dimensional printer” (claim elements 1[c] and 12[d]). *Infra* §IV.B. Further, Petitioner has failed to explain how any purported “diagnostic test” is performed to determine the operational parameter’s suitability “for the three-dimensional printer.” *See id.* Indeed, Petitioner’s citations to *Dahlin* describe the amount of material suitable *for a job*. *Id.* *Menchik* does not remedy the deficiencies in Petitioner’s lack of explanation or *Dahlin*’s disclosure. As explained below, there is no motivation to combine *Dahlin* and *Menchik* as Petitioner’s rationales ignore the disclosure of the references. *See id.* For instance, *Dahlin*’s system already contains the functionality that *Menchik* purportedly provides to the combination. *Infra* § IV.A. Further, *Loughran* in Ground 1B does not remedy these deficiencies as it does not separately address claim elements

19[e] and 19[f] over claim elements 1[c] and 1[e] in Ground 1A. *Infra* § IV.C.

Thus, Grounds 1A and 1B of the Petition are cumulative because they suffer from the same issue before the examiner with respect to the art considered, such as *Batchelder*. See EX1002 at 102-04 (asserting art), 139-40 (remarks on office action), 150-53 (final action only asserting double patenting), 187 (submission of terminal disclaimer), 195 (notice of allowance).

Similarly, the *Loughran-Toshiki* combination in Ground 2 does not teach claim elements 1[c] and 1[d], as well as claim elements 12[d], 12[e], 19[e], and 19[f]. *Infra* § IV.E-F. Petitioner asserts that *Loughran*'s material parameters that are retrieved from a material information server would be expanded to include *modeling* parameters from *Toshiki*, which teaches storing those *modeling* parameters in their own storage unit. See EX1024, [0094] and Fig. 8. Petitioner fails to explain its rationale and fails to show determining an operational parameter of a fabrication process based upon the data that is read from the tag, among other deficiencies. *Infra* § IV.F. Thus, like Grounds 1A and 1B of the Petition, Ground 2 of the Petition is cumulative because it suffers from the same issue before the examiner with respect to the art considered, such as *Batchelder*. See EX1002 at EX1002 at 102-04 (asserting art), 139-40 (remarks on office action), 150-53 (final action only asserting double patenting), 187 (submission of terminal disclaimer), 195 (notice of allowance).

As such, factors (a), (b), and (d) favor denying institution.

B. Factors (c), (e), and (f): Petitioner has failed to show any material error by the Patent Office

Petitioner asserts that “there was a material error during examination because the Dahlin-Menchik and Dahlin-Menchik-Loughran combinations provided Elements 1[c], 1[d], 12[d], 12[e], 19[e], and 19[f], which the examiner mistakenly believed to be missing from the prior art.” Pet. at 76. As explained in the section above, these references and combinations do not provide elements 1[c], 1[d], 12[d], 12[e], 19[e], and 19[f]. *Supra* § III.A. Thus, the asserted grounds are cumulative over what was considered during prosecution and factors (c) and (e) favor denial of institution.

Petitioner has not provided any additional evidence or facts in the Petition that would warrant reconsideration of *Menchik*, *Dahlin*, alone or in combination with *Loughran* or their teachings. The other ground (Ground 2) of the Petition is cumulative over combinations with *Menchik* and/or *Dahlin* because it too fails to teach claim elements 1[c], 1[d], 12[d], 12[e], 19[e], and 19[f]. Thus, Petitioner has not provided any additional evidence or facts in the Petition that would warrant reconsideration. Thus, factor (f) favors denial of institution.

On balance, the *Becton, Dickinson* factors weigh in favor of discretionary denial of institution under § 325(d) and thus the Director should decline to institute review of this Petition.

IV. THE MERITS OF THE PETITION ARE WEAK

Under the *Fintiv* framework, the Board and Director consider a balanced assessment of all relevant circumstances, including the merits of the Petition. As summarized below, and as will explained in further detail in the Patent Owner Preliminary Response, the merits of the Petition are weak. Each of the asserted Grounds for the challenged independent claims (and thus each challenged dependent claim) contain substantive flaws and fail to show that any claims are unpatentable.

A. No motivation to combine *Dahlin* and *Menchik* in Ground 1A

As one example, there is no motivation to combine *Dahlin* and *Menchik* in Ground 1A. Petitioner asserts that *Menchik* discloses a data tag/readable memory that stores optimal (operation, building, material) parameters, including the amount of material required for printing an object, which would have enabled *Dahlin*'s system to determine operational parameters stored in its circuit, including the amount of modeling and support filament required for a job. *See* Pet. at 14-15.

But Petitioner fails to recognize that *Dahlin*'s system has no need for *Menchik*'s purported improvements. *Dahlin* already determines if the amount of

material is sufficient to create a desired object and notifies the operator if the amount of material is insufficient for subsequent replacement of the material. Pet. at 11 (citing EX1011, 1:64-2:2); *see also* EX1001, 2:2-8; Pet. at 16 (arguing, contrary to its summary of *Dahlin*, that *Menchik* is necessary for an operator to respond to a notification before printing). Also, *Dahlin* already discloses using the “proper” parameters for dispensing material. EX1011, 1:56; *see* Pet. at 16 (arguing, contrary to *Dahlin*, that *Menchik* is necessary in the combination for the optimal/optimum parameters for the job to achieve a higher quality object).

Petitioner also fails to explain that *Menchik* does not teach any technique for making more efficient use of a finite supply of material in *Dahlin*'s system with two spools, one for models and another for support. *See* EX1009, [0005] (general statement in background), [0049] (determining whether the amount of material available is sufficient for a build); *see also* Pet. at 15 (flawed rationales based on “finite” amount of material and “efficiently” managing the supply of materials). Nor does *Menchik* teach determining the amount of material required for completing a job based on information stored in its memory chip. *See* EX1009, [0048], Fig. 6. For these and other reasons that Patent Owner will address in its Preliminary Response, there is no motivation to combine *Dahlin* and *Menchik*.

B. Ground 1A (*Dahlin* and *Menchik*) does not teach claims 1 and 12

As another example, Petitioner fails to show that the *Dahlin–Menchik* combination of Ground 1A teaches claims 1 and 12. For instance, Petitioner fails to meet its burden for claim element 1[b] (“determining an operational parameter of a fabrication process using the three-dimensional printer based upon the data, the operational parameter including at least one of ... a support structure requirement ...”) and 12[d] (“a processor configured to determine an operational parameter of a fabrication process using the three-dimensional printer based upon the data . . . , the operational parameter including at least one of a build platform temperature, a build volume temperature, an infill requirement, a rafting requirement, a support structure requirement, and a cooling requirement; and”). For instance, Petitioner fails to explain why “the amount of support filament required for completing the job is an operational parameter” is purportedly a support structure requirement and why the purported parameter is of a fabrication process that uses the three-dimensional printer *based upon the data that is read from the tag* (see claim element 1[a]). See, e.g., Pet. at 28. *Menchik* teaches determining the amount of material required for a job, but that determination is not based on the data that is read from the tag. EX1009, [0048], Fig. 6; see also Pet. at 24-26. Further, neither *Dahlin* nor *Menchik* teach or mention a support structure requirement.

Petitioner's failure to identify an operational parameter as required by claim elements 1[b] and 12[d] also impacts Petitioner's mappings under claim elements 1[c], 1[d], 12[d], and 12[e], which each recite the operational parameter.

As additional examples of the Petition's deficiencies, Petitioner fails under claim elements 1[c] and 12[d] to explain how the purported diagnostic test determines if the operational parameter ("the amount of support filament required for completing the job") is *suitable for the three-dimensional printer*. See Pet. at 29. Evaluating the amount of support filament required merely determines suitability of the job and does not determine the suitability of the printer. *Dahlin* teaches that it begins a job irrespective of the amount of support filament required for completing the job as the operator can replace and reload the filament spool during the process. EX1011 at 5:27-32. Similarly, *Menchik* teaches controlling the transfer of materials from one cartridge to another during the printing process. EX1009, [0050], [0051]. As a result, the Petition's assertions also fail under claim elements 1[d] and 12[e] because the operation of the printer is not controlled when the operational parameter is suitable under Petitioner's mapping where the printer proceeds with a print irrespective of the amount of support filament required for completing the job. See Pet. at 29-31; see also EX1001 at 5:26-37 (providing operator notification that filament is adequate or will need replacement during the

printing process) (cited by Pet. at 29); EX1009, [0050], [0051] (controlling the transfer of materials from one cartridge to another during the printing process).

C. Ground 1B (*Dahlin*, *Menchik*, and *Loughran*) does not teach claim 19

As another example, Petitioner fails to show that the *Dahlin–Menchik–Loughran* combination of Ground 1B teaches claim 19. Indeed, Petitioner merely refers back to its arguments for claims 1 and 10 as a shortcut to providing a proper explanation of its arguments. *See* Pet. at 47. Neither claim 1 nor claim 10 recite several elements of claim 19, including:

- claim element 19[a] (“reading first data from a tag included on a supply of a build material using a tag sensor associated with a three-dimensional printer, the first data related to the build material;”),
- claim element 19[b] (“retrieving second data from a data store, the second data including additional data related to the build material;”),
- 19[c] (“combining the first data and the second data;”), and
- claim element 19[d] (“determining an operational parameter to configure the three-dimensional printer for a fabrication process using the build material based upon the combination of the first data and the second data;”).

Further, Petitioner never mentions what is purportedly the “second data” and “data store.” *See* Pet. at viii (sole references in Petition to “second data” and “data store” are in the claim listing). *See* 37 C.F.R. § 42.22 (Petition must include a “full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence including material facts”); *United States v. Dunkel*, 927 F.2d 955, 956 (7th Cir. 1991) (“Judges are not like pigs, hunting for truffles buried in briefs.”).

D. Toshiki (Ground 2) is not prior art

As an example, the *Toshiki* reference asserted in Ground 2 is not prior art. Petitioner asserts that *Toshiki* was published on April 18, 2013 (*see* Pet. at 2), and tacitly admits that *Toshiki* is not prior art if the ’464 patent is entitled to its priority date of October 29, 2012. *See* Pet. at 1.

As will be discussed in more detail in Patent Owner’s forthcoming Preliminary Response, Petitioner has failed to show that *Toshiki* is prior art because the ’464 patent is entitled to claim priority to the October 29, 2012 filing of a provisional application. Indeed, Petitioner concedes that one of the four purported requirements of each challenged claim—reading data from a tag—is disclosed in the earlier filing. *See* Pet. at 8-10 (failing to mention no disclosure for reading data from a tag or claim elements 1[a], 12[c], or 19[a]). Petitioner also concedes that the elements separately recited in the challenged dependent claims

are disclosed in the earlier filing. *See id.* In fact, Petitioner's argument is limited to three elements of each challenged independent claim.

For determining an operational parameter based upon the data (claim elements 1[b], 12[d], and 19[d]), Petitioner sole argument is that a paragraph [0088] does not disclose that the "amount of build material required for a print job" is determined based on the tag data. *See* Pet. at 9. However, Petitioner fails to explain why determining the "amount of build material required for a print job" is relevant to the claim element that recites determining an operational parameter.

For performing a diagnostic test to determine whether the operational parameter is suitable for the three-dimensional printer (claim elements 1[c], 12[d], 19[e]), Petitioner demands the exact words of the claim appear in the earlier filing. *See* 8-9 (requiring use of the term "diagnostic test"). But Petitioner's arguments run afoul of the Federal Circuit's warning that "a prior application need not contain precisely the same words as are found in the asserted claims." *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008); *see also Purdue Pharma LP v. Faulding Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000) (holding that the prior disclosure need not provide in haec verba support).

Similarly, for controlling operation of the three-dimensional printer according to the operational parameter when the parameter is suitable for the printer according to the diagnostic test (*see* claim elements 1[d], 12[e], 19[f]),

Petitioner demands the use of the term “operational parameter” in the earlier filing. *See* Pet. at 8 (requiring explicit disclosure of phrase “operational parameter”).

Thus, Petitioner's assertions are inconsistent with both the disclosure of the earlier filing when considered as whole and the legal standard for claiming priority to an earlier filing, and therefore, Petitioner has failed to show that *Toshiki* is prior art.

E. No motivation to combine *Loughran* and *Toshiki* in Ground 2

As another example, there is no motivation to combine *Loughran* and *Toshiki* in Ground 2. Petitioner's arguments for the combination are guided by impermissible hindsight. Indeed, Petitioner fails to provide adequate support for its combination with its sole citation to the primary reference (*Loughran*) in the final paragraph that asserts that “the systems of *Loughran* and *Toshiki* are each related to systems for fabricating three-dimensional objects, which is the same as the '464 patent.” *See* Pet. at 51 (citing EX1004, [0001], [0013], [0016]). And yet, Petitioner makes several assertions about *Loughran* without support.

- “A POSITA would have been motivated to implement Loughran's system in a manner that employs *Toshiki's* suggestion ... to thereby enable Loughran's system to determine” Pet. at 50.
- “A POSITA would have been motivated to implement Loughran's system in this predictable manner to beneficially provide the operator

with the opportunity to respond to the notification before the printing begins" Pet. at 51.

- "Such an implementation of Loughran's system based on Toshiki's suggested techniques" Pet. at 51.

As a result, Petitioner has failed to provide sufficient support for its assertions with specific citations to evidence. *See TCL Communication Technology Holdings Ltd. v. DataQuill Limited*, IPR2020-00746, Paper 21 at 22 (Sept. 18, 2020) (denying institution and explaining that it is "Petitioner's responsibility to cite specific evidence to support its arguments, not the Board's responsibility to piece together evidence"); *see also* 35 U.S.C. § 312(a)(3) (the petition must identify "in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim"); *DeSilva v. DiLeonardi*, 181 F. 3d 865, 867 (7th Cir. 1999) ("A brief must make all arguments accessible to the judges, rather than ask them to play archaeologist with the record.").

F. Ground 2 (*Loughran* and *Toshiki*) does not teach claims 1, 12, 19

As another example, Petitioner fails to show that the *Loughran–Toshiki* combination of Ground 2 teaches claims 1, 12, and 19. For instance, Petitioner fails to meet its burden for claim element 1[b] ("determining an operational parameter

of a fabrication process using the three-dimensional printer based upon the data ...”). Claim elements 12[d] and 19[d] recite similar elements.

Petitioner abandons the obviousness theory it presented in its motivation to combine argument (i.e., Loughran's system to compare the remaining amount of material to the expected amount to be used and to display the result of the comparison, Pet. at 50) and instead asserts that one would have “implemented Loughran's parameters that are retrieved . . . to include modeling parameters” from *Toshiki*. See Pet. at 59. Petitioner fails to provide its rationale underpinning this new obviousness theory and merely cites to its expert (EX1003 at ¶108), who parrots the same conclusory argument. Further, Petitioner does not explain why information specific to model generation, as opposed to information specific to the material, would be stored and retrieved from Loughran's material information server 108 using material identifier, as opposed to a model identifier. See EX1004, [0035] (cited in Pet. at 58) (*Loughran* retrieves information regarding material 112 from material information server 108); EX1024, [0029] (modeling parameters relate to the model and are not specific to the material), [0093] and Fig. 8 (teaching that modeling data (221) is stored in its own storage unit (206) as opposed to a material information storage unit or server). Thus, Petitioner has failed to show determining an operational parameter of a fabrication process based upon the data that is read from the tag (*see also* claim element 1[a], 12[c], and 19[a]).

Petitioner's failure to identify an operational parameter as required by claim elements 1[b], 12[d], and 19[d] also impact Petitioner's mappings under claim elements 1[c], 1[d], 12[d], 12[e], 19[d], and 19[e], which each recite the operational parameter.

As an additional example, Petitioner fails to meet its burden for claim element 1[c] ("performing a diagnostic test to determine whether the operational parameter is suitable for the three-dimensional printer; and"). Claim elements 12[d] and 19[e] recite similar elements. Petitioner fails to explain how the purported diagnostic test determines "suitability for the three-dimensional printer." *See* Pet. at 61-63, 72-73, 75. Petitioner's citations to *Toshiki* describe whether the model is suitable and not whether an operational parameter based on the data read from a tag is suitable for the three-dimensional printer. *See, e.g.*, EX1024, [0110] (determining whether "the cumulative amount of the modeling material to be used in model processing" is suitable). In fact, *Toshiki* teaches that the printer can proceed with fabrication irrespective of the purported diagnostic test because the operator will be notified "during the fabrication process" to replace the material storage tank/cartridge to continue fabrication. *See* Pet. at 65 and 66; EX1024 at [0014] (quoted by Pet. at 64). Petitioner has also failed to meet its burden for claim

elements 1[c] and 1[d]³ (“when the operational parameter is suitable for the three-dimensional printer according to the diagnostic test, controlling operation of the three-dimensional printer during the fabrication process with the controller according to the operational parameter to fabricate an object with the three-dimensional printer.”) for this additional reason.

In addition, Petitioner failed to explain its position for claim 19 under Ground 2 similar to its deficiency for Ground 1B. Petitioner merely refers back to claim 1 and fails to mention what is purportedly the “second data” and “data store” in its mapping. *See* Pet. at 74-75.

V. ADDITIONAL COMMENTS

With respect to any arguments in the Petition that are not specifically addressed herein, Patent Owner does not concede the legitimacy of such arguments in the Petition and any underlying contentions in the Petition. Patent Owner's forthcoming Preliminary Response will address why review should not be instituted on the merits in more detail. Further, if *inter partes* review is instituted, Patent Owner expressly reserves the right to rebut any such arguments and any such contentions at a later point, including in a Patent Owner Response. Patent Owner is not limited to the arguments presented here in this request for

³ Claim elements 12[e] and 19[f] recite similar requirements as claim element 1[d].

discretionary denial and expressly reserves the right to raise further arguments, including claim construction arguments, not presented herein.

VI. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Director exercise her discretionary powers and decline to institute *inter partes* review of the '464 Patent.

Respectfully submitted,

Dated: June 9, 2025

/s/ Brian W. Oaks

Brian W. Oaks (Reg. No. 44,981)
MCDERMOTT WILL & EMERY LLP
300 Colorado Street, Suite 2200
Austin, TX 78701
TEL: 512-726-2574
EMAIL: boaks@mwe.com

Attorney for Patent Owner

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), I certify that this Request for Discretionary Denial complies with the type-volume limits of 37 C.F.R. § 42.24(b)(1) because it contains 10,156 words, excluding the parts that are exempted by 37 C.F.R. § 42.24(a), according to the word processing system used in preparation of this Request.

Dated: June 9, 2025

/s/ Brian W. Oaks

Brian W. Oaks (Reg. No. 44,981)
MCDERMOTT WILL & EMERY LLP
300 Colorado Street, Suite 2200
Austin, TX 78701
TEL: 512-726-2574
EMAIL: boaks@mwe.com

Attorney for Patent Owner

CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on June 9, 2025, a complete copy of the foregoing Patent Owner's Request for Discretionary Denial was served on Lead and Back-up Counsel for Petitioner at the service address provided in Petitioner's Mandatory Notices:

Email: IPR56224-0011IP1@fr.com

Dated: June 9, 2025

/s/ Brian W. Oaks _____

Brian W. Oaks (Reg. No. 44,981)
MCDERMOTT WILL & EMERY LLP
300 Colorado Street, Suite 2200
Austin, TX 78701
TEL: 512-726-2574
EMAIL: boaks@mwe.com

Attorney for Patent Owner