

Filed on behalf of: Yangtze Memory Technologies Company, Ltd.

Entered: April 28, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICRON TECHNOLOGY, INC.,
Petitioner,

v.

YANGTZE MEMORY TECHNOLOGIES COMPANY, LTD.,
Patent Owner.

Case IPR2025-00191
Patent 11,581,322

PATENT OWNER'S BRIEF ON DISCRETIONARY DENIAL

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Background.....	3
	A. The '322 Patent (Ex.1001)	3
	B. Prosecution History of the '322 Patent	5
	C. Parallel District Court Litigation.....	6
	D. Petitioner's Pattern of IPR/PGR Filings	8
III.	Argument	10
	A. Substantial Burden on the Board Militates in Favor of Denial of Institution.....	10
	1. Petitioner's IPRs Will Impose a Substantial Burden on the PTAB.....	10
	2. The Burden on the PTAB Will Not Result in a Commensurate Simplification of Issues Before the District Court.....	12
	B. Petitioner's Invalidity Challenges Are More Appropriately Resolved in District Court.....	14
	C. <i>Fintiv</i> Weighs In Favor of Denial of Institution	16
	1. Stay.....	16
	2. Projected Trial Date	17
	3. Investment in the Parallel Proceedings by the Court and the Parties	17
	4. Issue Overlap.....	20
	5. Party Overlap	21
	6. Other circumstances	22

D.	Patent Owner’s Settled Expectations Favor Discretionary Denial	22
E.	Further Supporting Discretionary Denial Petitioner Relies Extensively on Expert Testimony Indicating its Assertions Are Better Resolved in District Court.....	23
F.	Petitioner’s Weak Unpatentability Challenge Favors Discretionary Denial.....	24
IV.	Conclusion	28

TABLE OF AUTHORITIES**Page(s)****CASES**

<i>10x Genomics, Inc. v. President & Fellows of Harvard Coll.</i> , IPR2023-01299, Paper 15, 2024 WL 993828 (PTAB Mar. 7, 2024).....	19
<i>Abbott Labs. v. Sandoz, Inc.</i> , 544 F.3d 1341 (Fed. Cir. 2008)	24
<i>Adidas AG v. Nike, Inc.</i> , 963 F.3d 1355 (Fed. Cir. 2020)	27
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential).....	20
<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 15 (PTAB May 13, 2020)	21
<i>BOE Tech. Grp. Co. v. Element Cap. Com. Co. Pte. Ltd.</i> , IPR2023-00808, Paper 9, 2023 WL 7715885 (PTAB Nov. 15, 2023)	19
<i>Cellwitch Inc. v. Tile, Inc.</i> , No. 19-cv-01315-JSW, 2023 WL 8813524 (N.D. Cal. Dec. 20, 2023)	13
<i>Comcast Cable Commc'ns, LLC v. Touchstream Techs., Inc.</i> , IPR2024-00323, Paper 13, 2024 WL 3530021 (PTAB July 24, 2024)	19
<i>DSS Tech. Mgmt. v. Apple Inc.</i> , 885 F.3d 1367 (Fed. Cir. 2018)	25, 26
<i>In re Fritch</i> , 972 F.2d 1260 (Fed. Cir. 1992)	26
<i>In re Micron Tech., Inc.</i> , No. 2025-117 (Fed. Cir. Feb. 26, 2025)	8

<i>IOENGINE, LLC v. PayPal Holdings, Inc.</i> , 607 F. Supp. 3d 464 (D. Del. 2022).....	13
<i>Motorola Mobility LLC v. Largan Precision Co.</i> , IPR2024-00688, Paper 7 (PTAB Oct. 28, 2024).....	25, 26
<i>Motorola Sols., Inc. v. Stellar, LLC</i> , IPR2024-01205, Paper 19 (PTAB Mar. 28, 2025)	14, 16, 17, 21
<i>Omnitracs, LLC v. Platform Sci., Inc.</i> , No. 20-cv-958-CAB-DDL, 2024 WL 1626664 (S.D. Cal. Apr. 15, 2024)	13
<i>SAP Am., Inc. v. Cyandia, Inc.</i> , IPR2024-01496, Paper 13 (PTAB Apr. 7, 2025)	21
<i>SAS Inst. Inc. v. Iancu</i> , 584 U.S. 357 (2018).....	16
<i>Yangtze Memory Techs. Co., Ltd. v. Micron Tech., Inc.</i> , IPR2025-00098, Paper 8 (Mar. 12, 2025)	8

STATUTES

35 U.S.C.	
§ 314(a)	15
§ 315(e)(2)	2

OTHER AUTHORITIES

157 Cong. Rec. S936 (daily ed. Feb. 28, 2011) (statement of Sen. Grassley)	2
PTAB Memorandum, Interim Processes for PTAB Workload Management (Mar. 26, 2025)	16
PTAB, <i>FAQs for Interim Processes for PTAB Workload Management</i> , at question 21, https://www.uspto.gov/patents/ptab/faqs/interim- processes-workload-management (last visited Apr. 26, 2025)	23

Exhibit List

Exhibit	Description
2001	Defendants' Preliminary Invalidity Contentions and Document Production Accompanying Invalidity Contentions re YMTC II Asserted Patents (Patent Local Rules 3-3 and 3-4), <i>Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc.</i> , No. 3:23-cv- 05792-RFL (N.D. Cal. Nov. 25, 2024) (excerpts)
2002	Civil Minutes, <i>Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc.</i> , No. 3:23-cv-05792-RFL (N.D. Cal. Sept. 18, 2024), ECF No. 141
2003	Order Granting Stipulation to Extend Certain Deadlines Pursuant to Patent L.R. 4-2 and the Scheduling Order (ECF No. 141) Pursuant to Civil Local Rule 6-1(b), <i>Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc.</i> , No. 3:23-cv-05792-RFL (N.D. Cal. Jan. 8, 2025), ECF No. 194
2004	Order Granting Motion to Stay Case Pending <i>Inter Partes</i> Review, <i>Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc.</i> , No. 3:23-cv-05792-RFL (N.D. Cal. Mar. 14, 2025), ECF No. 243
2005	Plaintiff/Counterclaim Defendant Yangtze Memory Technologies Company, Ltd.'s and Counterclaim Defendant Yangtze Memory Technologies, Inc.'s Opposition to Micron's Motion to Stay Case Pending <i>Inter Partes</i> Review and Post-Grant Proceedings, <i>Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc.</i> , No. 3:23-cv-05792-RFL (N.D. Cal. Feb. 3, 2025), ECF No. 221
2006-2017	RESERVED
2018	Order Granting Motion to Consolidate, <i>Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc.</i> , No. 3:23-cv-05792-RFL (N.D. Cal. Aug. 21, 2024), ECF No. 106

I. Introduction

Patent Owner Yangtze Memory Technologies Company, Ltd. (“YMTC” or “Patent Owner”) respectfully submits this brief on discretionary denial in response to the Petition by Micron Technology Inc. (“Micron” or “Petitioner”) for *inter partes* review of U.S. Patent 11,581,322 (“the ’322 Patent” (Ex.1001)).

The ’322 Patent IPR Petition is part of an immense campaign waged by Petitioner against Patent Owner. Petitioner has wielded a barrage of 26 petitions challenging 251 claims across 19 of Patent Owner’s patents, harassing and punishing Patent Owner for asserting duly-issued, thoroughly examined, patents in the parallel district court proceeding. Petitioner’s attempt to leverage the PTAB to gain tactical advantage in district court imposes a substantial burden not only on Patent Owner, but also on the Board and its finite resources. These petitions require the Board to adjudicate hundreds of challenged claims, the majority of which have already been withdrawn from the district court litigation. Indeed, fewer than a third of all the challenged claims are presently asserted in the parallel litigation—including only 5 of the 20 challenged claims in this proceeding—and the court has ordered the parties to streamline the litigation further, down to eight claims at trial from the 19 originally asserted patents. This streamlining of the litigation will occur regardless of whether the PTAB institutes review.

Notably, even for the claims actually asserted in district court, the PTAB's substantial investment of time and resources is unlikely to simplify the issues nor will it provide a true alternative to litigation. Instead, Patent Owner will be forced to defend its patents against similar and overlapping invalidity arguments twice: once before the PTAB and again in district court. This benefits only Petitioner, giving it two bites at the apple, but wastes the PTAB's precious resources and imposes an unreasonable burden on Patent Owner.

To explain, Petitioner will be estopped from raising arguments before the district court that it made or reasonably could have made at the PTAB following a Final Written Decision. 35 U.S.C. § 315(e)(2). But Petitioner's district court invalidity arguments include combinations of prior art publications with unpublished system art. Ex.2001 (Micron Invalidity Contentions) at 40. And courts have consistently held that the estoppel that attaches after a Final Written Decision does not extend to combinations of prior art publications with unpublished system art. As a result, following a final written decision, Petitioner may only reframe its arguments slightly, substituting unpublished cumulative system art for a printed publication to try to re-litigate invalidity and force Patent Owner to defend its patent again against the same party and similar (if not identical) arguments.

Rather than providing a "faster, less costly alternative[] to civil litigation to challenge patents," 157 Cong. Rec. S936, S952 (daily ed. Feb. 28, 2011) (statement

of Sen. Grassley), Petitioner's campaign exponentially increases the cost and time required to litigate the dispute between the parties. This is a waste of the PTAB's finite resources, imposes an unreasonable burden on Patent Owner, and harms the integrity and efficiency of the patent system. The PTAB should deny institution and allow Petitioner's invalidity arguments to be resolved in district court.

Indeed, each Ground of the petition is fatally flawed for failing to provide evidence that a POSITA would be motivated to modify the primary references to arrive at the claimed invention. Instead, the petition relies on hindsight to selectively cherry-pick features from various disclosures and presents conclusory assertions a POSITA would combine them.

Patent Owner respectfully requests that the Director exercise discretion to deny the Petition.

II. Background

A. The '322 Patent (Ex.1001)

The '322 Patent recognized that 3D memory devices require contacts that go vertically through the memory stack called "through array contacts" or "TACs" for "providing vertical interconnects between the stacked memory array device and peripheral device (e.g., for power bus and metal routing)." '322 Patent, 4:58-62. In the past, these TACs were formed within a "barrier structure[]" to "preserve[] a dielectric stack region within a memory stack for ease of etching the openings of the

TACs.” *Id.*, 4:62-65. The drawbacks of a “barrier structure[]” is that “the regions enclosed by the barrier structures take up large area in the core array region where memory strings can be formed.” *Id.*, 4:62-5:1. TACs within a barrier structure “also have a negative impact on the resistance of word lines.” *Id.* “Moreover, the existing fabrication processes for forming the barrier structures become more challenging for the next-generation 3D memory devices,” which “have less process margin.” *Id.*, 5:2-5.

The '322 Patent discloses a novel “3D memory device having TACs not enclosed by barrier structures, which resolves the above-noted issues associated with the barrier structures.” *Id.*, 5:6-9. The '322 Patent explains that, “by removing the barrier structures, the areas for TACs can be reduced while keeping their functions, thereby increasing memory cell density and decreasing process cost.” *Id.*, 5:9-12. In addition, “[m]ore process margin”—i.e., room for error—may “be obtained due to the elimination of etching and alignment steps for making the barrier structures.” *Id.*, 5:13-18. To “further simplify the fabrication flow and reduce process cost,” the '322 Patent teaches that the non-barrier structure TACs can be “formed in the same fabrication process(es) for making other structures” such as “peripheral contacts” outside of the memory stack. *Id.*, 5:17-23. As a result, the non-barrier structure TACs 416 can have a same shape as the peripheral contact 420, including a “substantially circular shape in the plan view,” as shown in Figure 4C below where

the circular cross section of the TAC (green box) matches the circular cross section of the peripheral contact (blue box). *Id.*, 8:56-57.

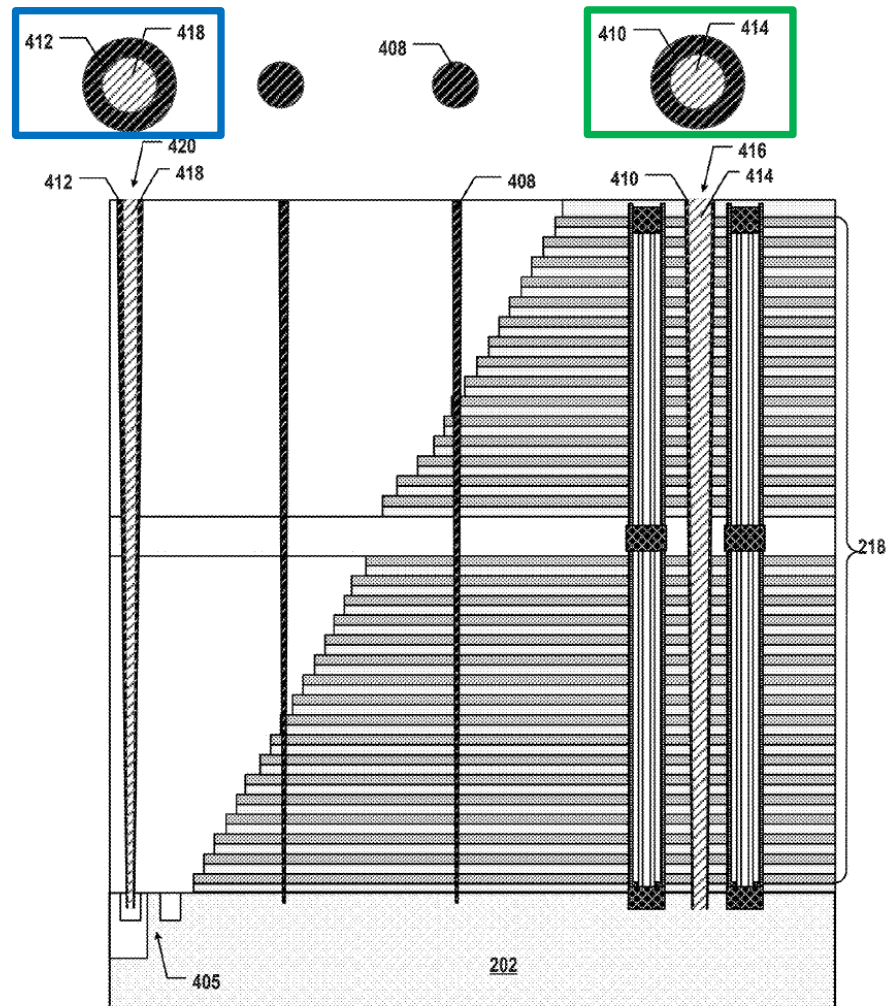


FIG. 4C

'322 Patent, Figure 4C

B. Prosecution History of the '322 Patent

YMTC filed the application that matured into the '322 Patent on November 21, 2020. Ex.1002 ('322 Patent FH), 9-17. The claims were directed to “[a] three-

dimensional (3D) memory device” having “a through array contact (TAC) extending vertically through the conductor/dielectric layer pairs in the memory stack.” Ex.1002, 20. Over the course of prosecution, the Examiner issued rejections of the pending claims as obvious over various prior art references (*id.*, 97-105, 160-177), and in response, YMTC amended the claims multiple times to address the Examiner’s rejections. *Id.*, 151-153, 216-225. The Examiner subsequently allowed the claims (*id.*, 289-292), and the ’322 Patent issued on February 14, 2023. ’322 Patent, Cover.

C. Parallel District Court Litigation

On July 12, 2024, YMTC filed a patent infringement action against Micron, asserting the ’322 Patent and U.S. Patent Nos. 10,672,711, 10,879,164, 10,879,254, 10,886,291, 11,101,276, 11,145,666, 11,450,604, 11,482,532, 11,568,941, and 12,010,838, *Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc. and Micron Consumer Products Group, LLC*, No. 3:24-cv-04223-RFL (N.D. Cal., filed July 12, 2024). This action followed an earlier patent infringement action filed against Micron on November 9, 2023, asserting U.S. Patent Nos. 10,950,623, 10,868,031, 10,861,872, 10,658,378, 10,937,806, 11,468,957, 11,501,822, and 11,600,342, *Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc. and Micron Consumer Products Group, LLC*, No. 3:23-cv-05792-RFL (N.D. Cal., filed Nov. 9, 2023). The Court consolidated the action into a single co-pending

litigation with 19 asserted patents. In its infringement contentions, YMTC identified 231 asserted claims among all 19 patents.

On September 18, 2024, the Court ordered that YMTC reduce its number of asserted claims to a total of 70. Ex.2002. On January 24, 2025, YMTC narrowed its asserted claims to 70 in accordance with the Court's first phase of claim narrowing. Ex.2002, Ex.2003. The Court also scheduled additional phases of claim narrowing over the life of the case, including a second phase of narrowing to 40 claims after receiving a claim construction order, a third phase of narrowing after the close of fact and expert discovery to 10 claims, and a fourth phase of narrowing to 8 claims before trial. Ex.2002.

Fact discovery opened, and the parties served requests for production on each other and produced responsive documents, resulting in around 113,000 documents produced. The parties have heavily litigated multiple discovery disputes, investing substantial resources into what in other litigations would be unobjectionable discovery. For instance, Petitioner filed a failed Petition for Writ of Mandamus to the Federal Circuit seeking review of a routine discovery order related to source code based on alleged national security concerns. In denying the petition for mandamus, the Federal Circuit found that Petitioner's alleged national security arguments

opposing discovery were “unsupported by anything other than speculation.” *In re Micron Tech., Inc.*, No. 2025-117, *4-5 (Fed. Cir. Feb. 26, 2025).¹

In addition, the parties have completed claim construction briefing and discovery, including two expert depositions. On March 14, 2025, the Court granted Petitioner's “motion to stay the case pending IPR.” Ex.2004 at 2.

D. Petitioner's Pattern of IPR/PGR Filings

Between April and December 2024, Petitioner filed 26 petitions against the 19 patents YMTC asserted in the consolidated co-pending litigation, including 25 IPR petitions and 1 PGR petition. For seven of the 19 challenged patents, Petitioner has filed two petitions to attack each of these same patents. The Board has instituted trial in nine proceedings and denied institution in three proceedings. Fourteen petitions remain pending institution.

Across its 26 petitions, Petitioner has challenged 251 of the claims in YMTC's 19 asserted patents, exceeding the 231 claims originally asserted by YMTC, and greatly exceeding the 70 total asserted claims that currently remain after YMTC

¹ Petitioner raised similar arguments in IPR2025-00098, -00099, and -00500, this time asserting (falsely) and without evidence, that Patent Owner is owned or controlled by the Chinese government. *See, e.g., Yangtze Memory Techs. Co., Ltd. v. Micron Tech., Inc.*, IPR2025-00098, Paper 8 at 1 (Mar. 12, 2025).

narrowed its case. Notably, even the 70 currently asserted claims greatly exceed the eight claims that the litigation will be reduced to before trial. The chart below shows the 19 asserted patents, YMTC's currently asserted claims, and the claims Petitioner has challenged with its IPR/PGR petitions. The Petition here seeks review of 20 claims even though only five are currently asserted in litigation, and as shown below, the petitions collectively challenge a vastly larger set of claims than are currently asserted in litigation.

Patent	Currently Asserted Claims	Proceeding(s)	Challenged Claims
10,950,623	1, 2, 4, 9	IPR2024-00794	1-11
10,868,031	1, 4	IPR2024-00790	1-5
10,861,872	1, 2, 3, 7, 8, 9, 10, 11	IPR2024-00789 IPR2024-00910	1-6 and 11-13 7-10
10,658,378	1, 7, 15, 17, 18	IPR2024-00788 IPR2024-00909	15-17 and 19-20 1-7 and 18
10,937,806	8, 9, 10	IPR2024-00791 IPR2024-00911	8-9 and 11-12 10
11,468,957	1, 4, 5	IPR2024-00792	1-6
11,501,822	1, 2	IPR2024-00795	1-9 and 11-19
11,600,342	1, 4, 9, 10, 16, 18, 19	IPR2024-00793 IPR2024-00912	1-6 and 8-20 7
10,879,164	1, 5, 8	IPR2025-00118	1-14
11,568,941	4, 10	IPR2025-00190	1, 3-11, and 13-14
12,010,838	3, 14, 15, 18	IPR2025-00229 PGR2025-00021	1, 3-7, and 12-20 1, 3-7, and 12-20
11,145,666	19	IPR2025-00189	17, 19, and 20
11,450,604	1, 9	IPR2025-00035	1-5, 8-13, and 15
10,886,291	11, 18, 19	IPR2025-00294 IPR2025-00244	6-7, 10, and 20 1-5, 8-9, 11-12, and 14-19
11,482,532	11, 16, 17, 20	IPR2025-00245	1-3, 11, 13, 15-18, and 20
10,879,254	2, 3, 4, 7, 11, 17	IPR2025-00034	1-15, 17-18, and 20

		IPR2025-00119	1-15, 17-18, and 20
11,581,322	3, 8, 11, 14, 19	IPR2025-00191	1-20
10,672,711	1, 2, 10, 13, 17	IPR2025-00117	1-19
11,101,276	7	IPR2025-00228	1-18

III. Argument

A. Substantial Burden on the Board Militates in Favor of Denial of Institution

Petitioner has filed 26 petitions challenging 19 patents and 251 claims. The number of petitions filed and number of challenged claims creates a substantial burden on the Board's finite time and resources. However, that immense burden will not result in a commensurate simplification of the issues before the district court. In district court, Petitioner relies on combinations of prior art references that include non-published duplicative system prior art, which Petitioner will try to use to circumvent the statutory estoppel that attaches to the PTAB's final written decisions. The Board should use its discretion to deny institution of IPR for the '322 Patent.

1. Petitioner's IPRs Will Impose a Substantial Burden on the PTAB

The Petition for IPR of the '322 Patent should be denied to limit the burden Petitioner has imposed on the Board. The Board has already instituted trial in nine proceedings filed by Petitioner against Patent Owner, which include 67 total

challenged claims.² Petitioner has 14 petitions pending institution challenging 160 additional claims, requiring the Board to assess the validity of up to 227 challenged claims. In addition, Petitioner has imposed an undue burden on the Board by filing more than one petition challenging seven of Patent Owner's patents.³ And for two of those seven patents, U.S. Patent Nos. 12,010,838 and 10,879,254, Petitioner challenged identical claims in each of the petitions.⁴

Petitioner should not be permitted to monopolize such a large proportion of the Board's finite resources, particularly where, as described below, the immense investment by the Board is unlikely to result in a commensurate simplification of the district court litigation.

² IPR2024-00794, IPR2024-00790, IPR2024-00789, IPR2024-00788, IPR2024-00909, IPR2024-00791, IPR2024-00911, IPR2024-00792, IPR2024-00795

³ U.S. Patent Nos. 10,861,872; 10,658,378; 10,937,806; 11,600,342; 12,010,838; 10,886,291; 10,879,254.

⁴ Additional reasons exist to deny these duplicative petitions, as established in Patent Owner's response to Petitioner's Ranking statements.

**2. The Burden on the PTAB Will Not Result in a
Commensurate Simplification of Issues Before the District
Court**

The petition should also be denied because the burden imposed on the PTAB by Petitioner's aggressive campaign is unlikely to result in a commensurate simplification of the issues before the District Court. Indeed, under the District Court's order requiring the parties to narrow the litigation, Patent Owner must limit its case to assert only eight claims prior to trial—fewer than even the number of claims that the PTAB has already declined to review in other IPRs involving patents asserted in the same litigation. The narrowing of asserted claims imposed by the Court's order is likely to subsume any additional speculative simplification that might come from institution. Ex.2002. Further, as discussed in detail in the Patent Owner Preliminary Response, the Petition's challenge fails on the merits, rendering any simplification unlikely. Instead, Petitioner would seek to force Patent Owner to defend the challenged claims against similar and overlapping arguments first before the PTAB and once again in district court, imposing a substantial burden on Patent Owner and exponentially increasing the cost and time required for litigation.

Petitioner's district court invalidity contentions are much more expansive than its arguments before the PTAB. Its contentions include the prior art references relied upon in the grounds in the Petition, but they also include other published prior art references, unpublished prior art systems, and various combinations thereof.

Ex.2001 at 38-41. Petitioner's proposed combinations of unpublished prior art systems and printed publications substantially overlap with the arguments made in the IPR petition. *See* Ex.2001 at 40-41 (relying on "120 Series Products" as primary invalidity reference for grounds 1-3 for each of claims 3, 8, 11, 14, and 19).

Because Petitioner's invalidity arguments in district court rely on unpublished system/device art, Petitioner will seek to avoid the estoppel that attaches to a final written decision by relying on system art that tracks the references raised before the PTAB. Indeed, courts have held that the estoppel triggered by PTAB Final Written Decisions does not encompass combinations of printed publications and prior art systems. *See, e.g., Cellwitch Inc. v. Tile, Inc.*, No. 19-cv-01315-JSW, 2023 WL 8813524, at *3 (N.D. Cal. Dec. 20, 2023) (estoppel does not apply to combinations of printed publications and system art); *see also Omnitracs, LLC v. Platform Sci., Inc.*, No. 20-cv-958-CAB-DDL, 2024 WL 1626664, slip op. at *1 (S.D. Cal. Apr. 15, 2024) ("IPR estoppel does not apply to device or system art because a petitioner cannot use an IPR to challenge the validity of a patent claim based on prior art products or systems."); *IOENGINE, LLC v. PayPal Holdings, Inc.*, 607 F. Supp. 3d 464, 511 (D. Del. 2022) ("[i]n general, IPR estoppel does not apply to device art") (citation omitted).

Even if Petitioner can no longer present the exact same grounds it presented in its Petition in the district court, Petitioner can be expected to rely on its system

prior art to try to force the district court to grapple with the same (or overlapping) obviousness arguments. In addition to wasting the PTAB's resources, this also creates a substantial risk of duplication and inconsistent decisions between the two proceedings. *See, e.g., Motorola Sols., Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19 at 4 (PTAB Mar. 28, 2025) (Director Review Decision) (denying institution on Director Review, explaining that "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" thus creating the risk of duplication between the parallel district court proceeding and the IPRs).

B. Petitioner's Invalidity Challenges Are More Appropriately Resolved in District Court

The size of the dispute between the parties—as illustrated by the 26 IPR/PGR petitions—makes it far better suited for district court, where the court can use the many levers available to it to streamline and resolve the litigation. Indeed, recognizing the immense scope of the litigation, the district court has already implemented four phases of claim narrowing, requiring both parties to narrow their case multiple times before trial. *Ex.2002*. In accordance with this narrowing plan, Patent Owner reduced its originally 231 asserted claims to 70 prior to the case being stayed. *Id.* As the case progresses, the district court's narrowing plan requires Patent Owner to narrow the case further to 40 claims after the claim construction order

issues, ten claims after discovery closes, and eight claims before trial. *Id.* Significantly, this narrowing process will occur regardless of the PTAB's decisions on these patents. Even if every challenged claim is upheld in the PTAB's final written decisions, the district court litigation will nevertheless be narrowed down to eight claims for trial. While the district court can control the scope of the dispute through claim limits, the PTAB's mechanism for controlling the scope of the dispute before it is discretionary denial of institution.

Furthermore, litigating the 19 challenged patents together in one district court litigation offers significant economies of scale that are lost by assessing validity of the patents in isolation in individual PTAB proceedings. The District Court appreciated these efficiencies and decided to consolidate two different litigations into one, emphasizing the “[c]ommon questions of law and fact” that exist “due to the overlap in accused products and claim terms.” Ex.2018. The Court's visibility and cumulative knowledge over the entire case will allow it to assess validity issues uniformly and efficiently, for instance, enabling it to assess claim construction of common terms and overlapping prior art references together. This will ensure consistent treatment of these issues across patents and will conserve judicial (and PTAB) resources.

In contrast, the PTAB has far more limited options for managing its workload: it can only discretionarily deny institution. 35 U.S.C. § 314(a) (authorizing

institution of an *inter partes* review under particular circumstances but not requiring institution under any circumstances); *see also* PTAB Memorandum, Interim Processes for PTAB Workload Management (Mar. 26, 2025). It has no ability to narrow the scope of what is challenged or pick and choose issues to resolve. The institution decision is binary: the PTAB can either institute on all challenged claims or deny institution. *SAS Inst. Inc. v. Iancu*, 584 U.S. 357 (2018).

Here, if review is instituted, the PTAB will necessarily waste resources deciding validity of claims that are not asserted against Petitioner in district court. Indeed, already, only five of the 20 claims challenged in the instant IPR petition remain in dispute in the parallel district court proceeding after just the district court's first round of narrowing. The immense amount of time and resources the PTAB will invest in resolving this petition, and the rest of the petitions in Petitioner's campaign against Patent Owner, may ultimately have no impact on the district court litigation. In contrast, by denying institution, the PTAB will allow the district court to move forward with its plan to streamline the litigation and expeditiously resolve the dispute between the parties.

C. *Fintiv* Weighs In Favor of Denial of Institution

1. Stay

While a stay has been issued, this factor is not dispositive, and other factors weigh in favor of denying institution of IPR for the '322 Patent. *See Motorola Sols.*,

Inc., IPR2024-01205, Paper 19 (Director Review Decision) at 3-4 (denying institution despite the district court issuance of a temporary stay). Indeed, should the PTAB decide not to institute review the claims currently asserted in District Court, Patent Owner intends to seek to lift the District Court stay and resume the litigation.

2. Projected Trial Date

Prior to the district court staying the case pending resolution of the IPR/PGR proceedings, trial was projected to start on June 15, 2026. This would have been before the PTAB could issue final written decisions addressing the patentability of the challenged claims of the '322 Patent. *Id.*, 3 (determining that scheduled trial date prior to the case being stayed was before the anticipated date for Final Written Decision). While there is currently no set trial date, should the PTAB decide not to institute review the claims currently asserted in district court, Patent Owner intends to seek to lift the stay and resume the litigation.

3. Investment in the Parallel Proceedings by the Court and the Parties

While the District Court's order granting a motion to stay found that the "litigation is in an early stage," the Court acknowledged that the case was only fifteen months from trial, with trial scheduled in June 2026. Ex.2004 at 1-2. The

trial would have been completed at least a month before the PTAB could render a final written decision in this IPR.

Prior to the stay, the parties collectively propounded, responded to, and supplemented responses to 38 interrogatories and 117 requests for production. The parties have already produced over 113,000 pages of documents. Ex.2005 at 012. They have also engaged in extensive source code discovery, which has involved 14 days of Patent Owner expert and/or attorney review of code in the Northern District of California and, more recently, three weeks of code review at Petitioner's headquarters in Boise, ID. Ex.2005 at 012. Additionally, Petitioner filed, and Patent Owner was forced to defend against, a failed Petition for a Writ of Mandamus to the Federal Circuit seeking review of a routine discovery order. *Micron Tech*, No. 2025-117, *4-5. And upon Order of the Court, Patent Owner narrowed its claims of infringement to 70 asserted claims, which has required extensive analysis of infringement, validity, and damages issues. Ex.2005 at 012.

The parties also devoted substantial effort to claim construction, including exchanging claim terms and proposed constructions and filing a Joint Claim Construction and Prehearing Statement. The parties exchanged expert declarations in connection with claim construction and conducted two claim construction expert depositions before the Court issued its stay. Thus, while the Court has not yet issued

a claim construction order, the parties have expended substantial effort on claim construction.

The significant effort in the parallel litigation favors discretionary denial of institution. *See, e.g., BOE Tech. Grp. Co. v. Element Cap. Com. Co. Pte. Ltd.*, IPR2023-00808, Paper 9 at 23, 2023 WL 7715885, at *8 (PTAB Nov. 15, 2023) (finding “the parties and the District Court ha[d] invested substantial resources in th[e] litigation” because, among other things, “[s]ignificant discovery ha[d] been completed, including the exchange of infringement and invalidity contentions, document requests and interrogatories, and proposed claim terms for construction”); *see also Comcast Cable Commc’ns, LLC v. Touchstream Techs., Inc.*, IPR2024-00323, Paper 13 at 9-10, 2024 WL 3530021, at *4 (PTAB July 24, 2024) (“Factor 3 favor[ed] denial” where “substantial work on claim construction [had] happened,” and “the related district court litigation ha[d] progressed in other aspects as well,” including with respect to contentions); *10x Genomics, Inc. v. President & Fellows of Harvard Coll.*, IPR2023-01299, Paper 15 at 18, 2024 WL 993828, at *8 (PTAB Mar. 7, 2024) (similar, noting that the parties had exchanged contentions, “completed claim construction briefing,” and that the “district court ha[d] also considered two motions to dismiss and presided over several discovery disputes”) (citations omitted).

4. Issue Overlap

There is substantial overlap between the claims, arguments, and evidence raised in the co-pending district court litigation and the IPR petition for the '322 Patent. Each of the five claims of the '322 Patent asserted in district court is challenged in this petition. While the Petition challenges additional claims, it is still “inefficient to proceed because the district court may resolve validity of enough overlapping claims to resolve key issues in the petition.” *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 13 (PTAB Mar. 20, 2020) (precedential). The claims asserted in the district court litigation (claims 3, 8, 11, 14, 19) include or depend from each of the independent claims challenged in the Petition, thus resolving the validity of many of the key overlapping claims.

Further, as noted above, Petitioner has asserted the same prior art references in district court as raised in this IPR petition. *E.g.*, Ex.2001 (invalidity contentions rely on the same primary Nishikawa reference alone or in combination with Lu, the same secondary reference included in the Petition, or other references discussed in the Petition, including Kai, Nakajima, Cui, and Zhou at Grounds 6, 7, and 8 for claim 3; Grounds 5, 7 and 8 for claim 8, Grounds 5-7 for claim 11, Grounds 5-7 for claim 14, and Grounds 5, 7 and 8 for claim 19).

The estoppel that attaches to a final written decision will not substantially reduce the overlap between the proceedings. Micron's invalidity contentions rely

on unpublished system art in addition to printed publications. *See* Ex.2001 at 38-41. “Petitioner’s invalidity arguments in the district court are more expansive” than those asserted in its IPR “and include combinations of the prior art asserted in these proceedings with unpublished system prior art.” *Motorola Sols.*, IPR2024-01205, Paper 19 at 4.

As a result, Petitioner is likely to raise system-based prior art invalidity arguments in seeking to circumvent the estoppel that attaches to a final written decision, which substantially increases the risk of duplication between the parallel proceeding and this one. *See SAP Am., Inc. v. Cyandia, Inc.*, IPR2024-01496, Paper 13 at 8-9 (PTAB Apr. 7, 2025) (concluding that, despite petitioner’s *Sotera* stipulation, “a majority of the parties’ work that would be done [in IPR] will also be required in the Litigation regardless of whether we institute review” because of duplicative asserted system art); *Motorola Sols.*, IPR2024-01205, Paper 19 at 4.

This factor therefore favors discretionary denial of institution.

5. Party Overlap

“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.*, IPR2020-00019, Paper 15 at 15 (PTAB May 13, 2020). Petitioner does not dispute that it is a defendant in the co-pending district court litigation. This factor therefore favors discretionary denial of institution.

6. Other circumstances

As described above, this Petition is part of Petitioner's effort to weaponize the PTAB to leverage Petitioner's position in the ongoing district court litigation. Petitioner has filed numerous petitions, including two petitions challenging the '322 Patent, and has challenged many more claims than those asserted against it. Petitioner is using the PTAB to impose a substantial burden on Patent Owner, forcing Patent Owner to defend its patents in 26 different proceedings. And by doing so, Petitioner is also imposing a substantial burden on the PTAB. The PTAB should not be used as a bargaining chip for defendants to secure a better outcome in district court litigation.

In addition, and as described in Section III.F below, the Petition is weak on the merits, which weighs in favor of discretionary denial.

D. Patent Owner's Settled Expectations Favor Discretionary Denial

The claims have been in force since issuance on January 5, 2021, over four years before the Petition was filed. Notably, Petitioner did not file a petition for Post-Grant Review ("PGR") challenging the claims following issuance. After the period for filing a petition for PGR passes, Patent Owner should be able to rely on its settled expectations and the presumption of validity that attaches to the issuance of the patent.

During prosecution of the '322 Patent, the USPTO examined the claims and conducted a thorough prior art search, including nearly 20 prior art references cited by Patent Owner and the Examiner over the course of prosecution. The Examiner issued multiple rejections to the claims (Ex.1002 at 97-105, 160-177), requiring Patent Owner to present arguments distinguishing its claims over the cited art. *Id.*, 151-153, 216-225. Patent Owner's arguments during prosecution successfully persuaded the Examiner to allow the claims. *Id.*, 289-292. Since the '322 Patent issued, there has been no change in the law nor has new judicial precedent issued that would affect patentability of the claims.

E. Further Supporting Discretionary Denial Petitioner Relies Extensively on Expert Testimony Indicating its Assertions Are Better Resolved in District Court

Petitioner's extensive reliance on expert testimony indicates that its assertions are better resolved in district court. "[P]etitions" are "require[d] to be based on prior art patents and printed publications." PTAB, *FAQs for Interim Processes for PTAB Workload Management*, at question 21, <https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management> (last visited Apr. 26, 2025). The failure to provide focused expert testimony here weighs against institution. *Id.* In the absence of persuasive prior art, Petitioner relies extensively on its expert declaration, citing its 127 page expert declaration over 100 times throughout the Petition. *See generally* Pet.

Petitioner relies on conclusory expert testimony to try to fill in disclosure that is critically missing from the prior art. For instance, and for all grounds, Petitioner relies on its expert's conclusory assertions about the "knowledge of a POSITA" to supply limitations that are missing from the primary reference (Nishikawa). These missing limitations include "a dummy channel structure filled with a dielectric layer and extending vertically through the conductor/dielectric layer pairs in the memory stack" (Pet. 59-65 (citing Ex.1003 ¶¶141-148)) and "a through array contact (TAC) comprising a substantially circular section and extending vertically through the conductor/dielectric layer pairs in the memory stack and buried into the substrate" (Pet. 78 (citing Ex.1003 ¶180)).

F. Petitioner's Weak Unpatentability Challenge Favors Discretionary Denial

Each Ground of the Petition is fatally flawed for failing to evidence that a POSITA would be motivated to modify the petition's primary references to arrive at the claimed invention. Rather, the petition impermissibly "pick[s] and choose[s] isolated elements from the prior art and combine[s] them so as to yield the invention in question." *Abbott Labs. v. Sandoz, Inc.*, 544 F.3d 1341, 1348 (Fed. Cir. 2008) (citation omitted).

For example, for each Ground, Petitioner fails to provide evidence that a POSITA would introduce the claimed "dummy channels" to Nishikawa to arrive at

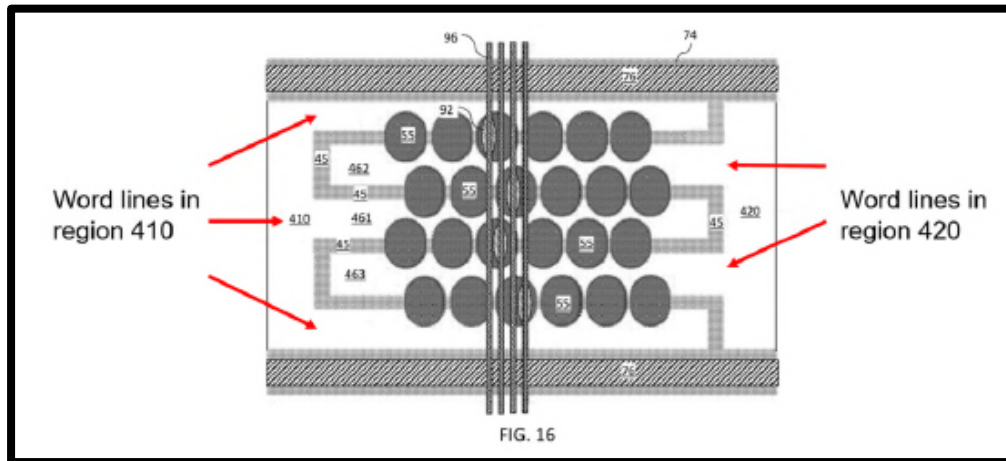
the structures of claims 3, 6, and 14-20. Petitioner relies on the general “knowledge of a POSITA” to allege that the claimed “dummy channels” would be introduced. Pet. 44, 59, 82, 98. But Petitioner fails to demonstrate that “the missing limitation in question [is] *unusually simple* and the technology *particularly straightforward*.” *Motorola Mobility LLC v. Largan Precision Co.*, IPR2024-00688, Paper 7 at 29 (PTAB Oct. 28, 2024) (original alteration and emphases) (denying institution). To the contrary, forming a dummy channel structure involves complex semiconductor manufacturing processes, including “wet etching, and/or dry etching, such as DRIE” and “thin film deposition processes, such as ALD, CVD, PVD.” ’322 Patent, 12:10-27. And 3D NAND technology is plainly not “particularly straightforward.” *See DSS Tech. Mgmt. v. Apple Inc.*, 885 F.3d 1367, 1374 (Fed. Cir. 2018) (rejecting Board’s reliance on “common knowledge” to “supply a missing claim limitation” because wireless communications is not “particularly straightforward” technology). Petitioner’s reliance on “general knowledge” to supply the indisputably missing limitations directed to forming “dummy channels” is legal error.

As a further example, for Grounds 1 and 2, Petitioner fails to provide evidence that a POSITA would modify Nishikawa to introduce a TAC with “a substantially circular section” as required by claims 8-20. Just like with the missing “dummy channel” structure, Petitioner relies on the knowledge of a POSITA to supply the missing TAC with a “circular section.” Pet. 43, 78. But, as noted above, this is not

a case where the missing limitation is “unusually simple” or “the technology particularly straightforward,” so the general knowledge of a POSITA cannot supply the missing limitation. *Motorola Mobility*, IPR2024-00688, Paper 7 at 29 (denying institution). The claimed circular TAC absent from Nishikawa involves complex semiconductor processes and multiple etching and filling steps to form. ’322 Patent, 15:44-17:8, Figs. 4A-4C, 8; *DSS Tech. Mgmt.*, 885 F.3d at 1374 (rejecting Board’s reliance on “common knowledge” to “supply a missing claim limitation” because wireless communications is not “particularly straightforward” technology).

In addition, for Grounds 3 and 4, Petitioner’s proposed combination with Nishikawa2 does not remedy Petitioner’s deficient evidence that a POSITA would modify Nishikawa with the claimed TAC having a “circular section.” Indeed, altering Nishikawa’s TAC having a trench shape destroys its key function. “[A] proposed modification [is] inappropriate for an obviousness inquiry when the modification render[s] the prior art reference inoperable for its intended purpose.” *In re Fritch*, 972 F.2d 1260, 1265 n.12 (Fed. Cir. 1992) (citation omitted). In Nishikawa, each level of control gate electrodes includes a first word line and a second word line that are separated by both the (1) trench structure 76 and (2) the separator dielectric structures 45. Nishikawa (Ex.1005), 15:31-32, Fig. 16. If Nishikawa’s trench structure 76 were modified to a circular section, the word lines

410 and 420 would no longer be separated and would result in a short circuit and would be inoperable. *See* Nishikawa 17:14-23.



Petition at 57 (annotating Nishikawa, Fig. 16)

In proposing to dispense with Nishikawa's trenches, Petitioner does not address this issue at all. Pet. 43, 78. In Nishikawa, a circular shape is *not suitable* for these reasons, and Petitioner makes *no attempt* to provide any evidence that it would have been suitable. *See* Pet. 43. To the contrary, Nishikawa's Figure 17 confirms to a POSITA that, to keep separation of the two wordlines at each level in that structure, the device requires a trench structure 76. *Adidas AG v. Nike, Inc.*, 963 F.3d 1355, 1358-60 (Fed. Cir. 2020) (affirming PTAB's finding of non-obviousness where IPR petitioner "failed to reconcile" "fundamental differences" where the proposed combination "would 'require the alteration of the principles of operation of [the primary reference] or would render [the primary reference] inoperable for its intended purpose'").

As such, for each Ground, the petition is fatally flawed, warranting denial.

IV. Conclusion

For the reasons set forth above, the Director should exercise discretion to deny the Petition for *Inter Partes* Review.

Respectfully submitted,

Dated: April 28, 2025

By: /Inge A. Osman/

Inge A. Osman (Reg. No. 74,480)
inge.osman@lw.com
Latham & Watkins LLP
555 Eleventh Street, NW, Ste. 1000
Washington, DC 20004-1304
Tel.: 202.637.2200
Fax: 202.637.2201

*Counsel for Patent Owner
Yangtze Memory Technologies
Company, Ltd.*

CERTIFICATE OF COMPLIANCE WITH 37 C.F.R. § 42.24

I hereby certify that this Patent Owner's Brief on Discretionary Denial complies with the word count limitation of 37 C.F.R. § 42.24 because the Patent Owner's Brief on Discretionary Denial contains 5,773 words using Microsoft Word's counting feature, excluding the cover page, signature block, and the parts of the Patent Owner's Brief on Discretionary Denial exempted by 37 C.F.R. § 42.24.

By: / Inge A. Osman /

Inge A. Osman (Reg. No. 74,480)
inge.osman@lw.com
Latham & Watkins LLP
555 Eleventh Street, NW, Ste. 1000
Washington, DC 20004-1304
Tel.: 202.637.2200
Fax: 202.637.2201

*Counsel for Patent Owner
Yangtze Memory Technologies
Company, Ltd.*

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that on this 28th day of April, 2025,
a true and correct copy of the foregoing **Patent Owner's Brief on Discretionary
Denial and all Exhibits** were served by electronic mail on Petitioner's lead and
backup counsel at the following email addresses:

Jeremy Jason Lang
Jared Bobrow
Orrick, Herrington & Sutcliffe LLP
1000 Marsh Road
Menlo Park, CA 94025-1015
T: 650-614-7400
F: 650-614-7401
jlang@orrick.com
jbobrow@orrick.com
PTABDocketJL2@orrick.com
PTABDocketT6J1@orrick.com
PTABDocketJ3B3@orrick.com
MICRON-YMTC_OHS@orrick.com

Thomas James
Orrick, Herrington & Sutcliffe LLP
353 N Clark Street, Suite 3600
Chicago, IL 60654
T: 312-924-9800
F: 312-924-9899
tjames@orrick.com

By: / Inge A. Osman /

Inge A. Osman (Reg. No. 74,480)
inge.osman@lw.com
Latham & Watkins LLP
555 Eleventh Street, NW, Ste. 1000
Washington, DC 20004-1304

IPR2025-00191 (USP 11,581,322)

PO's Brief on
Discretionary Denial

Tel.: 202.637.2200

Fax: 202.637.2201

*Counsel for Patent Owner
Yangtze Memory Technologies
Company, Ltd.*