

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 No.: IPR2025-00035
U.S. Patent No. 11,450,604
Issue Date: September 20, 2022

Title: STAIRCASE STRUCTURE IN THREE-DIMENSIONAL
MEMORY DEVICE AND METHOD FOR FORMING THE SAME

PETITIONER'S PRELIMINARY REPLY

LISTING OF EXHIBITS

Exhibit	Description
1001	U.S. Patent No. 11,450,604 to Wang et al. (the “’604 patent”)
1002	File History of U.S. Patent No. 11,450,604 to Wang et al.
1003	Declaration of Dr. Sanjay Banerjee (“Banerjee”)
1004	<i>Curriculum Vitae</i> of Dr. Sanjay Banerjee
1005	U.S. Patent No. 10,515,973 to Thimmegowda et al. (“Thimmegowda”)
1006	U.S. Patent Publ. No. 2019/006275 to Kobayashi et al. (“Kobayashi”)
1007	U.S. Patent Publ. No. 2016/0027730 to Lee (“Lee”)
1008	Minute Order (case schedule), Dkt. No. 141, dated September 18, 2024 in <i>Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc. and Micron Consumer Products Group, LLC</i> , Case No. 3:23-cv-05792-RFL
1009	Combined Civil and Criminal Federal Court Management Statistics (December 31, 2023), available at https://www.uscourts.gov/sites/default/files/data_tables/fcms_na_distcomparison1231.2023.pdf
1010	U.S. Patent Publ. No. 2021/0193676 to Zhang et al. (“Zhang”)
1011	U.S. Patent No. 9,029,938 to Nakaki (“Nakaki”)
1012	Aritome, “NAND Flash Memory Technologies” (2016)
1013	Silvagni, “3D NAND Flash Based on Planar Cells,” Computers (2017)
1014	Michelsoni et al., “Inside Solid State Drives (SSDs)” (2nd Ed. 2018)

Exhibit	Description
1015	Plaintiff and Counterclaim Defendant Yangtze Memory Technologies Company, LTD.'s Disclosure of YMTC II Asserted Claims and Infringement Contentions, dated October 2, 2024 in <i>Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc. and Micron Consumer Products Group, LLC</i> , Case No. 3:23-cv-05792-RFL
1016	Docket from <i>Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc. and Micron Consumer Products Group, LLC</i> , Case No. 3:24-cv-04223-RFL which has been consolidated with Case No. 3:23-cv-05792-RFL
1017	U.S. Patent Publ. No. 2017/0256551 to Lee
1018	Micheloni, "3D Flash Memories" (2016)
1019	U.S. Patent Publ. No. 2019/0139977 to Lee
1020	INTENTIONALLY OMITTED
1021	U.S. Patent No. 11,239,248 to Xu et al.
1022	U.S. Patent No. 11,217,601 to Luo et al.
1023	U.S. Patent No. 12,087,572 to van Schravendijk et al.
1024	U.S. Patent Publ. No. 2021/0193536 to Kris et al.
1025	U.S. Patent No. 10,475,737 to Tang et al.
1026	U.S. Patent No. 10,381,369 to Kim et al.
1027	Certified English Translation of Chinese Patent Application Publ. No. CN108766971 to Liu
1028	Chinese Patent Application Publ. No. CN108766971 to Liu
1029	U.S. Patent Publ. No. 2012/0070944 to Kim et al.
1030	U.S. Patent No. 10,026,692 to Chen

Exhibit	Description
1031	Declaration of Jared Bobrow in Support of Petitioner’s Motion for Admission <i>Pro Hac Vice</i>
1032	Email from Andrew Kellogg (PTAB) regarding IPR2025-00035 – Preliminary Reply Request, dated April 21, 2025
1033	Order Granting Motion to Stay Pending <i>Inter Partes</i> Review, dated March 14, 2025 in <i>Yangtze Memory Technologies Company, Ltd. v. Micron Technology, Inc. and Micron Consumer Products Group, LLC</i> , Case No. 3:23-cv-05792-RFL
1034	Email chain regarding IPR2025-00118 - Preliminary Reply Request in <i>Micron Technology, Inc. v. Yangtze Memory Technologies Company, Ltd.</i> , Case No. IPR2025-00118 (PTAB).

Per the Board's authorization (EX1032), Petitioner Micron Technology, Inc. ("Micron") submits this Preliminary Reply to address the *Fintiv* arguments in Patent Owner's Preliminary Response (Paper 8, "POPR"). For the reasons in the Petition (at 7-9) and herein (viz., a district court stay), the Board should not deny institution.

In its POPR, Patent Owner argued that the Board should deny institution under *Fintiv* because "[t]he Parallel Proceeding has not been stayed, and a stay is unlikely." POPR, 29. But the district court granted Petitioner's motion to stay on March 14, 2025. See EX1033. Thus, the premise of Patent Owner's argument failed. In opposing leave for Petitioner to address *Fintiv* issues in a Preliminary Reply in a related proceeding (IPR2025-00118), Patent Owner recognized that the stay order meant that "Patent Owner's *Fintiv* arguments [] no longer apply, and a Reply would waste the Board's resources." EX1034, 3. Yet thereafter, in an about face, Patent Owner refused to withdraw its *Fintiv* arguments based on "recent guidance from the Board on discretionary denial and the application of *Fintiv*." *Id.*, 1.

But Patent Owner's reliance on this "recent guidance" is misplaced because the guidance re-affirmed the *Fintiv* factors which, as discussed below, favor Petitioner. See www.uspto.gov/about-us/news-updates/uspto-rescinds-memorandum-addressing-discretionary-denial-procedures (rescinding June 21, 2022, memorandum and directing parties "to [PTAB] precedent for guidance, including [the precedential *Fintiv* decision]"). Any attempt by Patent Owner in sur-

reply to advance a new theory would be improper gamesmanship.

Factor 1 (district court stay). As noted, the district court has stayed the underlying litigation in which the '604 patent is asserted. *See* EX1033. Moreover, the case is stayed through “the completion of all IPR proceedings” on the patents asserted in district court. *Id.*, 3 (emphasis added). Presently, the parties have filed 32 IPR petitions, and the case is stayed through the completion of them all. Thus, *Fintiv* factor 1 overwhelmingly counsels against discretionary denial.

Factor 2 (proximity of trial date to the projected final written decision deadline). Because of the stay, no trial date is set. Nor will a trial date be set until after completion of the IPRs. As such, the final written decisions will necessarily be complete well before trial. *Fintiv* factor 2 strongly counsels against denial.

Factor 3 (investment in parallel proceedings). In its stay order, the district court recognized that “the litigation is in an early stage.” EX1033, 1. Nevertheless, Patent Owner asserts that the “parties have expended, and continue to expend, substantial resources in[] the Parallel Proceeding” because the parties have conducted some written discovery, produced documents, and conducted code reviews. POPR, 31. But Patent Owner cannot dispute that not a single fact deposition has been taken, or that even before the stay order, the close of fact discovery was months away. Moreover, unlike *Fintiv*, the parties here have not briefed claim construction. *Fintiv*, 13-14. *Fintiv* factor 3 counsels against denial.

Factor 4 (issue overlap). Petitioner challenged all '604 patent claims asserted in district court (*i.e.*, claims 1 and 9). Thus, a final written decision finding those claims unpatentable will eliminate district court litigation on the '604 patent altogether. Patent Owner faults Petitioner for filing a *Sand Revolution* stipulation instead of a *Sotera* stipulation. POPR, 33. But, because of the stay, Petitioner would presumably be subject to actual statutory estoppel in district court on any claims found not unpatentable in a final written decision. And, as a practical matter, any truly duplicative system art, standing alone, would serve little purpose against claims that survived IPR. Thus, factor 4 counsels against discretionary denial.

Factor 5 (same/different parties). The parties are the same, which is often the case given that a patent assertion frequently prompts an IPR. This factor is neutral.

Factor 6 (other circumstances). To the extent Petitioner argues the Board should deny institution for “efficiency” purposes (*viz.*, because the district court ordered YMTC to reduce its asserted claims from hundreds down to seventy), that would create an unworkable catch-22 for petitioners: either move quickly (as Petitioner did) to file IPRs based on a plaintiff's initial assertions or wait for claim narrowing and risk discretionary denial for delaying. Regardless, Petitioner challenges only 8 claims in this IPR and the equities favor Petitioner because Patent Owner asserted a large number of claims in district court to begin with.

On balance, the *Fintiv* factors overwhelmingly favor Petitioner.

Respectfully submitted,

Dated: May 1, 2025

ORRICK, HERRINGTON & SUTCLIFFE LLP

By: /Jeremy Jason Lang/
Jeremy Jason Lang
Lead Counsel for Petitioner
Reg. No. 73,064
1000 Marsh Road
Menlo Park, CA 94025-1015
T: (650) 614-7400
F: (650) 614-7401
Email: PTABDocketJLL2@orrick.com

*Attorneys for Petitioner Micron Technology,
Inc.*

CERTIFICATE OF SERVICE

The undersigned hereby confirms that the foregoing paper was caused to be served on May 1, 2025 via electronic mail, upon the following attorneys of record for the Patent Owner:

Inge A. Osman (inge.osman@lw.com)
Kevin Wheeler (kevin.wheeler@lw.com)
Brenda L. Danek (brenda.danek@lw.com)
Steven W. Peters (steven.peters@lw.com)
Amit Makker (amit.makker@lw.com)

/Karen Johnson/

Karen Johnson