

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.: IPR2024-00912
U.S. Patent No. 11,600,342
Issue Date: March 7, 2023

Title: METHOD FOR READING THREE-DIMENSIONAL FLASH MEMORY

**PETITIONER'S EXPLANATION OF MULTIPLE PETITIONS
CHALLENGING U.S. PATENT 11,600,342 AND RANKING OF
PETITIONS**

As required by the Board’s Trial Practice Guide, Petitioner Micron Technology Inc. (“Micron”) provides this paper explaining the need for two parallel petitions requesting *inter partes* review (“IPR”) of the claims of U.S. Patent No. 11,600,342 (“the ’342 patent”). The ’342 patent is owned by Yangtze Memory Technologies Company, Ltd. (“YMTC”). Micron has filed two IPR petitions relating to the ’342 patent: IPR2024-00793 (filed April 26, 2024) seeks IPR of claims 1-6 and 8-20 while IPR2024-00912 (filed May 17, 2024) seeks IPR of claim 7. Both petitions rely on an overlapping set of prior art references that includes Seo (Ex. 1005), Nam (Ex. 1006), and Choi (Ex. 1007), and the second petition merely challenges an additional dependent claim that Petitioner could not have foreseen that YMTC would assert in district court. Each ’342 patent claim-at-issue is challenged in only a single petition.

I. Two Petitions Are Needed

Micron submits that two petitions are needed here in view of YMTC’s belated decision to interject additional, different asserted claims into the co-pending district court action relating to the ’342 patent and because of the large number of ’342 patent claims.

Independent claim 1 of the ’342 patent is directed to a “method for conducting a read-verification operation on a target memory cell in a three-dimensional (3D) memory device.” The method entails “applying” various voltages to “an unselected

top select gate,” “a selected word line,” and “an unselected word line” during certain time periods. Claims 2-15 all depend on claim 1. Claim 7 is narrower than the other dependent claims in that it requires that one of claim 1’s voltages—the “read voltage”—be applied “when a voltage of the unselected top select gate equals to a threshold voltage of an unselected memory cell.”

YMTC filed a district court complaint alleging infringement of the ’342 patent and several other unrelated patents on November 9, 2023. *See* Ex. 1035. The complaint identified independent claim 1 as the sole asserted claim from the ’342 patent. *See id.* at 27. YMTC filed an amended complaint on February 2, 2024. *See* Ex. 1036. Once again, YMTC identified claim 1 as the only ’342 patent asserted claim. *See id.* at 27.

In view of YMTC’s identification of claim 1, Micron filed its first petition for IPR of the ’342 patent addressing claims 1-6 and 8-20 on April 26, 2024. *See* IPR2024-00793, Paper 1. This first petition did not address dependent claim 7 because YMTC had not yet (and could not have credibly) alleged that any Micron product applies a “read voltage” when “a voltage of the unselected top select gate equals to a threshold voltage of an unselected memory cell” as this claim requires.

A week after receiving Micron’s IPR petition, YMTC served a “Disclosure of Asserted Claims and Infringement Contentions” in the co-pending district court action involving the ’342 patent. *See* Ex. 1037. These contentions expanded the

collection of asserted '342 patent claims to include not just independent claim 1, but also many of the claims that depend on claim 1. *See id.* at 2. This included dependent claim 7. *See id.* While Micron does not believe that these expanded infringement allegations have merit, it followed up by expeditiously filing a further IPR petition challenging the newly asserted claim.

The Board has explained that multiple, parallel petitions are justified when a Patent Owner “has asserted a large number of claims in litigation.” Nov. 2019 Consolidated Trial Practice Guide, 59. Here, YMTC asserted a collection of claims from the '342 patent with differing scope. This includes broad independent method claim 1, and more narrow dependent claims like claim 7. Moreover, not only did YMTC assert different sets of claims with different scope, but it did so in a staggered, staged fashion. Thus, even if it were possible for Micron to challenge all of the now asserted claims in a single petition, it was not put on notice of the need to do so until after it had already filed its first petition. Two petitions are justified to account for these unique factual circumstances.

Micron also submits that any additional burden on either the Board or Patent Owner resulting from multiple petitions in this case should be negligible. Both petitions rely on overlapping collections of prior art, and both petitions apply the same arguments and prior art against claim 1 (upon which claim 7 depends). In addition, Micron has employed the same expert witness to support both petitions.

This will maximize the efficiency of depositions, briefing, and oral argument and avoid duplication of effort. This further supports institution.

II. Petition Ranking

For the reasons discussed above and in the petitions themselves, the Board should institute both petitions. Under the circumstances, Micron submits that a ranking of petitions is not appropriate given that they challenge unique claim sets with no overlap. In the event, however, that the Board determines that only one petition should be instituted, Micron requests that the Board consider the petitions in the following order:

Rank	Petition	Challenged Claims
1	IPR2024-00793	1-6 and 8-20
2	IPR2024-00912	7

Respectfully submitted,

ORRICK, HERRINGTON & SUTCLIFFE LLP

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CERTIFICATE OF SERVICE

The undersigned hereby confirms that the foregoing paper was caused to be served on May 17, 2024 via overnight courier upon the following counsel of record for Patent Owner:

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Copies were also served via electronic mail on Patent Owner's counsel of record for related PTAB proceeding IPR2024-00793 and in the related district court litigation – ROPES & GRAY LLP:

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