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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN FRANCISCO DIVISION

YANGTZE MEMORY TECHNOLOGIES COMPANY, LTD., Plaintiff, v. MICRON TECHNOLOGY, INC., and MICRON CONSUMER PRODUCTS GROUP, LLC., Defendants.	Case No. 3:23-cv-05792-RFL **FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT** DEMAND FOR JURY TRIAL

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Plaintiff Yangtze Memory Technologies Company, Ltd. ("YMTC" or "Plaintiff"), by its attorneys Ropes & Gray LLP, as and for its First Amended Complaint against Defendants Micron Technology, Inc. and Micron Consumer Products Group, LLC, (collectively, "Micron" or "Defendants"), on personal knowledge as to its own actions, and upon information and belief as to all others, alleges as follows:

PRELIMINARY STATEMENT

1. YMTC filed its original Complaint against Micron in this action on November 9, 2023. The Complaint described and sought relief for Micron's infringement of eight YMTC patents that are directed to 3D NAND technology. YMTC's original Complaint contained extensive discussion of how Micron's Accused Products (as defined herein) meet every limitation of at least one claim of each of the Asserted Patents (as also defined herein).

2. Micron requested a 45-day extension to respond to the Complaint, purportedly to investigate the Complaint's allegations of infringement. YMTC agreed to that extension.

3. Micron designs and manufactures the 3D NAND products that are the Accused Products here. Micron knows the details of those products' layouts and configurations; structural properties and relationships; material compositions; and electrical designs and characteristics. Micron had all of the information it needed to properly investigate YMTC's allegations of infringement.

4. At the conclusion of its nearly two-and-a-half-month purported investigation of the Complaint's allegations, Micron's response was not to deny that it is an infringer, to seek a license, or to put an end to its infringing conduct. Instead, Micron challenged the Complaint's allegations on procedural, not substantive, grounds, arguing that the allegations were not specific enough, and then used that motion to attempt (unsuccessfully) to delay the initial Case Management Conference and the progress of this suit.

5. If Micron had determined that it did not infringe, Micron presumably would have said so. It could have explained why it did not infringe, including to YMTC. Micron did none of those things. Micron also did not ask YMTC for a license. Instead, Micron decided to file a meritless procedural motion in the attempt to slow down this suit, and also to continue infringing, willfully.

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6. To streamline and advance these proceedings and reduce the number of issues the Court needs to address, and to address Micron's ongoing, willful infringement, YMTC has chosen to file this Amended Complaint instead of to oppose Micron's motion to dismiss. This Amended Complaint provides detailed claim charts showing Micron's infringement on a claim element-by-element basis, resolving any question as to Micron's status as an infringer of the Asserted Patents.

NATURE OF THE ACTION

7. YMTC is one of the world's most innovative developers and manufacturers of 3D NAND flash memory chips. Although a relative newcomer, YMTC has developed and patented technologies that enable the production of better flash memory chips, having more capacity and a lower per-bit cost. YMTC's innovations have not gone unnoticed. In 2018, for example, YMTC received the award for the Most Innovative Flash Memory Start-up Company from the Flash Memory Summit in Santa Clara, CA, which award "recognizes the most creative and ambitious startup companies and applauds their entrepreneurial journey to becoming a market disruptor and champion of the storage industry."[1] YMTC has continued to innovate and has continued to receive important patents as a result. In 2022, YMTC received the award for Most Innovative Memory Technology for YMTC's Xtacking® 3.0 3D NAND Architecture from the Flash Memory Summit in Santa Clara, CA.[2]

8. No longer an upstart, YMTC has become a key player in the global 3D NAND market. Just the past November, TechInsights Inc., which analyzes and tracks the flash memory market, concluded that "[w]hat YMTC has accomplished has been nothing short of amazing"—YMTC "is now the leader in 3D NAND flash," having "leap-frogged Micron," another major player in the 3D NAND space.[3] Micron is threatened by YMTC's ascension.

9. 3D NAND flash memory is vital technology for many of the digital products that consumers have come to depend upon and enjoy, such as smartphones, laptops, and tablet computers,

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[1] *See* Ex. 38 ("Flash Memory Summit 2018 Award Winners")

[2] *See* Ex. 9 ("Flash Memory Summit Announces 2022 Best of Show Award Winners")

[3] *See* Ex. 26 (https://www.techinsights.com/disruptive-event/ymtc-232l-tlc-3d-nand.)

as well as for the data centers and enterprise storage solutions in which 3D NAND is used. Competition and innovation in the NAND memory space inure to the benefit of consumers, as competition and innovation lead to better products at better prices. Attempts to stifle competition and hinder innovation do neither.

10. This action seeks to address one facet of Micron's attempts to hinder competition and innovation via its attempts to force YMTC out of the 3D NAND flash memory market. More specifically, this is an action to put an end to Micron's widespread and unauthorized use of YMTC's patented innovations. Micron has turned to use of YMTC's patented technologies in an effort to fend off competition from YMTC, and to gain and protect market share. And by Micron not paying its fair share to use YMTC's patented inventions, and instead freeriding on YMTC's innovations, Micron robs from the incentive to innovate.

11. In particular, this is an action brought by YMTC against Micron for infringement of United States Patent Nos. 10,950,623 (the "'623 Patent"), 11,501,822 (the "'822 Patent"), 10,658,378 (the "'378 Patent"), 10,937,806 (the "'806 Patent"), 10,861,872 (the "'872 Patent"), 11,468,957 (the "'957 Patent"), 11,600,342 (the "'342 Patent"), and 10,868,031 (the "'031 Patent") (collectively, the "Asserted Patents").

THE PARTIES

12. Plaintiff YMTC is headquartered in China and maintains a principal place of business in Wuhan, China. YMTC maintains a wholly-owned subsidiary, Yangtze Memory Technologies, Inc., which has its principal place of business in Santa Clara, CA, in this judicial District.

13. Micron Technology, Inc. is a publicly traded corporation organized under the laws of the State of Delaware, with its principal place of business at 8000 S. Federal Way, Boise, Idaho, 83716. Micron Technology, Inc. may be served with process through its registered agent, CSC – Lawyers Incorporating Service, at 2710 Gateway Oaks Dr., Ste. 150N, Sacramento, CA 95833.

14. Micron Consumer Products Group, LLC, is a wholly-owned subsidiary of Micron Technology, Inc., is directed and controlled by Micron Technology, Inc., and is organized under the

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laws of the State of Delaware, with its principal place of business at 110 Holger Way, San Jose, California, 95134. Micron Consumer Products Group, LLC may be served with process through its registered agent, CSC – Lawyers Incorporating Service, at 2710 Gateway Oaks Dr., Ste. 150N, Sacramento, CA 95833.

15. Defendants have been and are acting in concert, and are otherwise liable jointly, severally, or otherwise for relief related to or arising out of the same transaction, occurrence, or series of transactions or occurrences related to the making, using, selling, offering for sale, or otherwise distributing the Accused Memory Products (as defined below) in this District and elsewhere.

16. In addition, this action involves questions of law and fact that are common to both Defendants. For example, Defendants are making, using, offering for sale, selling, or otherwise distributing at least some of the same Accused Memory Products (as defined below) in this District and elsewhere.

JURISDICTION AND VENUE

17. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction under 28 U.S.C. §§ 1331 (federal question), and 1338(a) (action arising under an Act of Congress relating to patents).

18. This Court has personal jurisdiction over Micron because Micron, directly or through its agents, has regularly conducted business activities in this judicial District and throughout California and this action arises out of and relates to activities that Micron has purposefully directed at this judicial District and California. Micron Technology, Inc., maintains an office at 110 Holder Way, San Jose, California, 95134, within this judicial District.[4] Micron Consumer Products Group, Inc. is a resident of this State and maintains a headquarters office at 110 Holger Way, San Jose, California,

[4] Ex. 28 (https://www.micron.com/about/locations?country=USA&city=San%20Jose) ("Micron San Jose").

95134.[5]

19. Micron has committed acts of infringement within this judicial District and California by, *inter alia,* directly and/or indirectly making, selling, offering for sale, importing, and/or using products that practice (or are made in a manner that practices) one or more claims of the Asserted Patents. Micron, directly and/or through intermediaries, uses, sells, ships, distributes, imports, offers for sale, and/or advertises or otherwise promotes its products throughout the United States, including in this judicial District and California.[6]

20. Micron maintains highly interactive and commercial websites, accessible to residents of this judicial District and California, through which Micron promotes and facilitates sales and use of its products and services, including products that infringe the Asserted Patents.[6]

21. Venue is proper in this judicial District pursuant to 28 U.S.C. §§ 1391 and 1400(b), because Micron has a regular and established place of business in this judicial District, and has committed and continues to commit acts of patent infringement in this judicial District, by, among other things, directly and/or indirectly making, using, selling, offering to sell, or importing products that practice (or are made in a manner that practices) one or more claims of the Asserted Patents.

22. This is an action concerning infringement by Micron with respect to its 3D NAND technologies and products incorporating the same. According to Micron, "Micron's 3D NAND-related design and product engineering occurs . . . in Micron's San Jose and Folsom, California facilities . . . ."[7]

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[5] *See* Ex. 29 (Micron Consumer Products Group, Inc., Statement of Information filed with the California Secretary of State); *see also* Ex. 33 (San Jose Mercury news article titled, "Micron opens modern new north San Jose campus amid growth spurt").

[6] *See, e.g.,* Ex. 20 (https://www.micron.com).

[7] Ex. 34 at 2.

DIVISIONAL ASSIGNMENT

23. This case is an Intellectual Property Action under Civil Local Rule 3-2(c) and, pursuant to Civil Local Rule 3-5(b), shall be assigned on a district-wide basis.

YMTC'S INNOVATIONS AND PATENTS

24. YMTC is an integrated device manufacturer (IDM) dedicated to the development of memory products for the global market. With a focus on the design of superior 3D NAND flash memory, YMTC's innovations have gained significant recognition in a short amount of time. YMTC has succeeded in designing and manufacturing 3D NAND flash memory chips with bit densities, I/O speeds, and capacities that are highly praised in the industry. YMTC maintains ties to Silicon Valley through a wholly-owned subsidiary, Yangtze Memory Technologies, Inc., incorporated in California.[8]

25. YMTC's 3D NAND Chips have been recognized as the "Best of Show" for "Most Innovative Flash Memory Start-up Company."[9] In 2018, the Flash Memory Summit held in Santa Clara, CA, recognized YMTC as among "the most creative and ambitious startup companies and applaud[ed] their entrepreneurial journey to becoming a market disruptor and champion of the storage industry."[9] In 2022, the Flash Memory Summit recognized YMTC's Xtacking® 3.0 3D NAND Architecture as the "Most Innovative Memory Technology."[10] The Flash Memory Summit hosts up to 6,000 individuals and companies, including on average 100 global sponsors, and is the largest collection of flash memory experts.[11] YMTC innovations have resulted in "the world's most advanced

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[8] *See* Ex. 35 (Yangtze Memory Technologies, Inc. Statement of Information filed with the California Secretary of State); *see also,* Ex. 36 (https://www.ymtc.com/en/contact.html).

[9] Ex. 38; *see also*, Ex. 39 (https://apnews.com/press-release/globe-newswire/technology-business-472edca95b4b227a486f5f8c4750cbb3).

[10] Ex. 9.

[11] *See* Ex. 10 (Flash Memory Summit Sponsor Prospectus); *see also* Ex. 9 (The Flash Memory Summit is "the world's largest event featuring the trends, innovations, and influencers driving the adoption of flash memory in demanding enterprise storage applications, as well as in smartphones, tablets, and mobile and embedded systems.").

3D NAND memory chip in a consumer device," having "the highest bit density seen in a commercially available NAND product."[12]

26. To promote the progress of science and useful arts, and protect its investments in research and development to facilitate further research and development efforts, YMTC has applied for and received numerous patents for its innovations, including many United States patents.

27. YMTC's patented innovations increase the speed, performance, density, reliability, and yield of 3D NAND chips, which in turn facilitate technological improvements in a wide variety of products including not just mobile phones, data centers, and personal computers, but also many types of products requiring memory, such as portable electronic devices and automotive infotainment systems. YMTC's innovations make possible, or improve, many of the electronic devices that consumers depend upon and enjoy.

MICRON'S ACCUSED PRODUCTS AND INFRINGING ACTIVITIES

28. Micron is a global manufacturer and supplier of memory components and devices for use in consumer and enterprise products, systems, and services.

29. Micron designs, makes, uses, sells, offers for sale, imports, supplies, or otherwise distributes into the United States, and provides support for, 96-Layer NAND memory chips and Micron products containing the same (collectively, the "96L Accused Products"), including products with the part or die name or number B27A, and other memory chips (and memory products containing the same) that have the same or similar structures, features, or functionalities, and/or are made by the same or similar manufacturing processes, as the aforementioned exemplary product. An exemplary technical analysis of the B27A is available for purchase at https://www.techinsights.com/products/car-1906-202 and https://www.techinsights.com/products/war-1912-801.

30. Micron designs, makes, uses, sells, offers for sale, imports, supplies, or otherwise distributes into the United States, and provides support for, 128-Layer NAND memory chips and

[12] Ex. 11 (https://www.techinsights.com/blog/china-does-it-again-nand-memory-market-first).

Micron products containing the same (collectively, the "128L Accused Products"), including products with the part or die name or number B37R and other memory chips (and memory products containing the same) that have the same or similar structures, features, or functionalities, and/or are made by the same or similar manufacturing processes, as the aforementioned exemplary product. An exemplary technical analysis of the B37R is available for purchase at https://www.techinsights.com/products/tcr-2104-805.

31. Micron designs, makes, uses, sells, offers for sale, imports, supplies, or otherwise distributes into the United States, and provides support for, 176-Layer NAND memory chips and Micron products containing the same, (collectively, the "176L Accused Products"), including products with the part or die name or number N48R or B47R, and other memory chips (and memory products containing the same) that have the same or similar structures, features, or functionalities, and/or are made by the same or similar manufacturing processes, as the aforementioned exemplary products. An exemplary technical analysis of the N48R is available for purchase at https://www.techinsights.com/products/mfr-2207-801. An exemplary technical analysis of the B47R is available for purchase at https://www.techinsights.com/blog/memory/micron-176l-3d-nand.

32. Micron designs, makes, uses, sells, offers for sale, imports, supplies, or otherwise distributes into the United States, and provides support for, 232-Layer NAND memory chips and Micron products containing the same (collectively, the "232L Accused Products"), including products with the part or die name or number B58R and other memory chips (and memory products containing the same) that have the same or similar structures, features, or functionalities, and/or are made by the same or similar manufacturing processes, as the aforementioned exemplary product. An exemplary technical analysis of the B58R is available for purchase at https://www.techinsights.com/products/tcr-2303-802.

33. The 96L Accused Products, 128L Accused Products, 176L Accused Products, and 232L Accused Products are collectively referred to as the "Accused Memory Products."

34. The Accused Memory Products are, or are integrated into, devices made, used, sold, offered for sale, imported, supplied, or otherwise distributed in the United States by among others,

Micron, Micron's customers, original equipment manufacturers ("OEMs"), original design manufacturers ("ODMs"), distributors, resellers, and other third parties, including under Micron's own brand name and under the Crucial brand name.[13]

35. Micron also conducts research, development, and testing of Accused Memory Products in the United States, including in this judicial District and in California.

36. Micron actively encourages others, such as its customers and distributors, to make, use, offer to sell, import, supply, or otherwise distribute into the United States the Accused Memory Products, and products containing the Accused Memory Products.[14] Micron maintains a website that advertises the Accused Memory Products, including identifying the applications for which they can be used, along with specifications for the Accused Memory Products.[15] Micron specifically intends for its customers and end-users to use the Accused Memory Products in such applications and provides instructions and encouragement for its customers and end-users to do so.[16]

37. Micron sells and offers to sell in the United States, and imports into the United States, the Accused Memory Products, which are essential, non-trivial components of the products into which they are integrated, constituting a material part of the claimed inventions of the Asserted Patents, and are not a staple article or commodity of commerce suitable for substantial non-infringing use.

38. Micron knows that the Accused Memory Products and products incorporating the same are used, marketed, sold, offered for sale in, and imported into, the United States. For example, Micron's website identifies distributors of the Accused Memory Products.[17] The website includes a list of United States "authorized distributors" for purchasing the Accused Memory Products, including

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[13] *See, e.g.*, Exs. 12-16.

[14] *See e.g.*, Ex. 17 ("We are dedicated to collaborating with you, our customers and partners…"); *see also*, Ex. 18.

[15] *See, e.g.*, Ex. 19.

[16] *See, e.g.*, Ex. 27 (Micron Form 10-K (FY 2023) at 10, *available at* https://investors.micron.com/static-files/25afc2b7-1b51-4f33-9d3b-9d1620fafa30.)

[17] *See, e.g.*, Ex. 21.

Arrow Electronics, Inc., ASI, Avnet, D&H, Digi-Key, Edge Electronics, Inc., MA Labs, Mouser Electronics, Phoenics Electronics, TD Synnex, and WPG Americas, Inc.[18]

39. Micron also has imported into the United States, and offered to sell, sold, and used within the United States, the Accused Memory Products, which are made by a process patented in the United States during the term of the Asserted Patents. Micron practices the patented processes, or owns or controls, or is owned or controlled by, the person who practices the patented processes. Micron sells its products to customers, including customers in this District, in the computer, networking, storage, consumer electronics, solid-state drive, and mobile telecommunications markets. Micron encourages its customers to import, sell, resell, and/or offer to sell the Accused Memory Products in the United States.[19]

40. Micron knew and knows that YMTC has patents in the 3D NAND technology space that are relevant to Micron's own 3D NAND products. There are a limited number of companies competing to make advanced generation 3D NAND products; Micron knows that YMTC is one of them; and Micron knows that YMTC actively patents in that area. Many YMTC-owned patents are cited on the face of Micron's own patents, demonstrating Micron's knowledge of YMTC's patent portfolio that is highly relevant to Micron's own 3D NAND products. Micron has actual knowledge of YMTC's patents in the 3D NAND space, and yet Micron has not sought or received authorization to use those patents.

41. For example, in a May 6, 2021 Information Disclosure Statement in connection with the prosecution of Micron's U.S. Patent Application No. 17/313,814, Micron cited YMTC's asserted '031 Patent as relevant prior art—demonstrating that Micron knew of the '031 Patent since at least that date, and providing further evidence that Micron is aware of, and investigates, YMTC's patents with respect to 3D NAND technology. Similarly, the publication of the application leading to the

[18] *See, e.g.*, Ex. 21; *see also, e,g.*, Ex. 22.

[19] *See e.g.*, Ex. 23 at 18-19 (Micron listed as a supplier for Dell Technologies, 2022); Ex. 24 at 5 (Micron listed as a supplier for HP, 2021); Ex. 25 at 16 (Micron listed as a "Top 100 Production and Service Suppliers" of Intel, 2020-2021)

asserted '378 Patent was cited by the patent examiner in rejecting claims of a pending Micron patent application, U.S. Patent Application No. 17/062,373, in a December 9, 2022 office action, further evidencing Micron's knowledge of the '378 Patent and the innovations described and claimed therein. Likewise, Micron's U.S. Patent No. 11,340,982 cites on its face YMTC's U.S. Patent Publication No. 2021/0125674, which is the publication of the application to which the asserted '342 Patent claims priority. As yet another example, during prosecution of Micron's U.S. Application No. 17/062,373, the patent examiner rejected then pending claims over U.S. Patent Publication No. 2021/0225864 to YMTC, which concerns 3D NAND technology. As courts in this District have made clear, "knowledge of the specific patents is not required to support a finding of willful infringement" but "[i]instead, 'the patentee must show the accused infringer had a specific intent to infringe at the time of the challenged conduct' based on the totality of the circumstances." *Illumina, Inc. v. BGI Genomics Co.*, No. 19-CV-03770-WHO, 2022 WL 899421, at *14 (N.D. Cal. Mar. 27, 2022). The foregoing facts, together with the other facts alleged herein, establish that Micron has, and has had, the specific intent to infringe since at least the filing of the original Complaint—and discovery may reveal an even earlier such intent.

42. Micron's development, sales, marketing, and manufacturing activities in the United States, including within this judicial District, directly contributed to over $8 billion of Micron's net revenue in the United States for the year of 2022 as of September 1, 2022.[20]

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 10,950,623

43. YMTC incorporates by reference and re-alleges all the foregoing paragraphs of this Complaint as if fully set forth herein.

44. YMTC owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in and to U.S. Patent No. 10,950,623, entitled "3D

[20] Ex. 27 at 43 (Micron's 10-K filing, 2022).

NAND Memory Device and Method of Forming the Same." A true and correct copy of the '623 Patent is attached as Exhibit 1.

45. The '623 Patent was duly and legally issued by the United States Patent and Trademark Office on March 16, 2021.

46. Micron infringes under 35 U.S.C. § 271(a) at least claim 1 of the '623 Patent, literally and/or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States, without authorization, at least Micron's 96L Accused Products (for example, the Micron SSD model 1300 SATA, and the Micron SSD model c200) ("the '623 Accused Products"). Further identification of the '623 Accused Products will be provided in YMTC's infringement contentions disclosed pursuant to the Court's scheduling order, and/or as discovery progresses.

47. The '623 Accused Products embody and/or are made using each and every limitation of at least claim 1 of the '623 Patent. A claim chart providing examples of how the '623 Accused Products practice each limitation of claim 1 of the '623 Patent is attached as Exhibit 40 hereto, and is incorporated by reference herein.

48. In its Motion to Dismiss (ECF No. 21), Micron asserted that the original Complaint failed to identify the claimed dielectric trenches or their claimed orientation. Attached Exhibit 40 shows precisely where the claimed dielectric trenches can be found, and their orientation, within the '623 Accused Products. Micron designs, manufactures, analyzes, and tests the '623 Accused Products, and knew when it filed its Motion to Dismiss that the '623 Accused Products have dielectric trenches as claimed—or willfully blinded itself to that fact by failing to conduct a reasonable investigation of YMTC's allegations.

49. Micron also actively induces infringement of claim 1 of the '623 Patent under 35 U.S.C. § 271(b), and has done so since at least November 10, 2023, by actively encouraging others to infringe (such infringement by others being by way of using, selling, offering to sell, or importing into the United States the '623 Accused Products). Since at least the filing of the original Complaint in this action, Micron has known of the '623 Patent and its infringement thereof. Since before the filing of the original Complaint, Micron has had knowledge of YMTC's patent portfolio with respect to 3D

NAND technology and that portfolio's relevance and application to Micron's own products. Accordingly, discovery may reveal the Micron knew of the '623 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint.

50. Micron knows (or believes that there is a high probability, but is taking deliberate steps to avoid knowing, including by not adequately investigating the allegations against it) that its actions are inducing infringement and are intended to induce infringement. For example, Micron encourages, trains, instructs, and provides support and technical assistance to, others to directly infringe the '623 Patent by contracting with, encouraging, and instructing third parties, including equipment and design manufacturers, device manufacturers, distributors, customers, and other third parties to make, use, sell, offer for sale, and/or import into the United States, the '623 Accused Products and products that incorporate the '623 Accused Products. For example, Micron publishes and provides technical materials, product specifications, and promotional literature for the '623 Accused Products that instruct and encourage Micron's customers and other third parties to integrate the '623 Accused Products into products made, used, sold, offered for sale, and/or imported into the United States, and works with customers and potential customers to design in the '623 Accused Products with knowledge that those products will be used and sold in the United States.

51. Since at least the filing of the original Complaint in this action, Micron's infringement has been willful, as exemplified by, for example, its actions, or lack thereof—including its failure to cease its infringing conduct, to seek a license, or even to assert that or explain how it does not infringe—since having been put on notice of its infringement of the '623 Patent. Further, as explained above, discovery may reveal that Micron knew of the '623 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint, but nevertheless that Micron made the choice to continue engaging in the conduct that infringes YMTC's '623 Patent.

52. As a result of Micron's infringement of the '623 Patent, YMTC is entitled to monetary damages in an amount adequate to compensate for Micron's infringement, but in no event less than a reasonable royalty for the use made of the invention by Micron, together with interest and costs as fixed by the Court.

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COUNT II: INFRINGEMENT OF U.S. PATENT NO. 11,501,822

53. YMTC incorporates by reference and re-alleges all the foregoing paragraphs of this Complaint as if fully set forth herein.

54. YMTC owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in and to U.S. Patent No. 11,501,822, entitled "Non-Volatile Memory Device and Control Method." A true and correct copy of the '822 Patent is attached as Exhibit 2.

55. The '822 Patent was duly and legally issued by the United States Patent and Trademark Office on November 15, 2022.

56. Micron infringes under 35 U.S.C. § 271(a) at least claim 1 of the '822 Patent, literally and/or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States, without authorization, at least Micron's 176L Accused Products (for example, the Micron SSD model 3400 NVMe), and 232L Accused Products (for example, the Micron SSD model 2550) (collectively, "the '822 Accused Products"). Further identification of the '822 Accused Products will be provided in YMTC's infringement contentions disclosed pursuant to the Court's scheduling order, and/or as discovery progresses.

57. The '822 Accused Products embody and/or are made using each and every limitation of at least claim 1 of the '822 Patent. Claim charts providing examples of how the '822 Accused Products practice each limitation of claim 1 of the '822 Patent are attached as Exhibits 41-42 hereto, and are incorporated by reference herein.

58. In its Motion to Dismiss (ECF No. 21), Micron asserted that the original Complaint failed to plead factual allegations that the voltage level of the second word line pre-pulse is greater than the first or that the third is greater than the second. Attached Exhibits 41-42 provide that allegedly missing information—information that was already known to Micron because Micron designs, manufactures, analyzes, and tests the '822 Accused Products, and knew when it filed its Motion to Dismiss that the '822 Accused Products satisfy this limitation—or willfully blinded itself to those facts by failing to conduct a reasonable investigation of YMTC's allegations.

59. Micron also actively induces infringement of claim 1 of the '822 Patent under 35 U.S.C. § 271(b), and has done so since at least November 10, 2023, by actively encouraging others to infringe (such infringement by others being by way of using, selling, offering to sell, or importing into the United States the '822 Accused Products). Since at least the filing of the original Complaint in this action, Micron has known of the '822 Patent and its infringement thereof. Since before the filing of the original Complaint, Micron has had knowledge of YMTC's patent portfolio with respect to 3D NAND technology and that portfolio's relevance and application to Micron's own products. Accordingly, discovery may reveal the Micron knew of the '822 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint.

60. Micron knows (or believes that there is a high probability, but is taking deliberate steps to avoid knowing, including by not adequately investigating the allegations against it) that its actions are inducing infringement and are intended to induce infringement. For example, Micron encourages, trains, instructs, and provides support and technical assistance to, others to directly infringe the '822 Patent by contracting with, encouraging, and instructing third parties, including equipment and design manufacturers, device manufacturers, distributors, customers, and other third parties to make, use, sell, offer for sale, and/or import into the United States, the '822 Accused Products and products that incorporate the '822 Accused Products. For example, Micron publishes and provides technical materials, product specifications, and promotional literature for the '822 Accused Products that instruct and encourage Micron's customers and other third parties to integrate the '822 Accused Products into products made, used, sold, offered for sale, and/or imported into the United States, and works with customers and potential customers to design in the '822 Accused Products with knowledge that those products will be used and sold in the United States.

61. Since at least the filing of the original Complaint in this action, Micron's infringement has been willful, as exemplified by, for example, its actions, or lack thereof—including its failure to cease its infringing conduct, to seek a license, or even to assert that or explain how it does not infringe—since having been put on notice of its infringement of the '822 Patent. Further, as explained above, discovery may reveal that Micron knew of the '822 Patent and Micron's unauthorized use

thereof even before the filing of the original Complaint, but nevertheless that Micron made the choice to continue engaging in the conduct that infringes YMTC's '822 Patent.

62. As a result of Micron's infringement of the '822 Patent, YMTC is entitled to monetary damages in an amount adequate to compensate for Micron's infringement, but in no event less than a reasonable royalty for the use made of the invention by Micron, together with interest and costs as fixed by the Court.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 10,658,378

63. YMTC incorporates by reference and re-alleges all the foregoing paragraphs of this Complaint as if fully set forth herein.

64. YMTC owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in and to U.S. Patent No. 10,658,378, entitled "Through Array Contact (TAC) for Three-Dimensional Memory Devices." A true and correct copy of the '378 Patent is attached as Exhibit 3.

65. The '378 Patent was duly and legally issued by the United States Patent and Trademark Office on May 19, 2020.

66. Micron infringes under 35 U.S.C. § 271(a) at least claim 15 of the '378 Patent, literally and/or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States, without authorization, at least Micron's 128L Accused Products (for example, Micron BX500 2.5 480GB SSD), 176L Accused Products (for example, the Micron SSD model 3400 NVMe and the Micron SSD model 2400 PCIe Gen 4), and 232L Accused Products (for example, the Micron SSD model 2550) (collectively, "the '378 Accused Products"). Further identification of the '378 Accused Products will be provided in YMTC's infringement contentions disclosed pursuant to the Court's scheduling order, and/or as discovery progresses.

67. The '378 Accused Products meet each and every limitation of at least claim 15 of the '378 Patent. Claim charts providing examples of how the '378 Accused Products practice each

limitation of claim 15 of the ’378 Patent are attached as Exhibits 43-45 hereto, and are incorporated by reference herein.

68. In its Motion to Dismiss (ECF No. 21), Micron asserted that the original Complaint failed to identify the claimed slit structures. Attached Exhibits 43-45 show precisely where the claimed slit structures can be found within the ’378 Accused Products. Micron designs, manufactures, analyzes, and tests the ’378 Accused Products, and knew when it filed its Motion to Dismiss that the ’378 Accused Products have slit structures as claimed—or willfully blinded itself to that fact by failing to conduct a reasonable investigation of YMTC’s allegations.

69. Micron also has infringed and continues to infringe under 35 U.S.C. § 271(g) by importing into the United States or offering to sell, selling, or using within the United States a product which is made by a process patented in the United States during the term of the ’378 Patent. Micron has practiced the patented process; or owns or controls, or is owned or controlled by, the person who has practiced the patented process. Micron sells its products to customers, including customers in this District, in the computer, networking, storage, consumer electronics, solid-state drive, and mobile telecommunications markets. Micron encourages its customers to import, sell, resell, offer to sell, and/or resell the ’378 Accused Products.

70. Micron also actively induces infringement of claim 15 of the ’378 Patent under 35 U.S.C. § 271(b), and has done so since at least November 10, 2023, by actively encouraging others to infringe (such infringement by others being by way of using, selling, offering to sell, or importing into the United States the ’378 Accused Products). Since at least the filing of the original Complaint in this action, Micron has known of the ’378 Patent and its infringement thereof. Since before the filing of the original Complaint, Micron had actual knowledge of the ’378 Patent as described above, also has had knowledge of YMTC’s patent portfolio with respect to 3D NAND technology and that portfolio’s relevance and application to Micron’s own products. Accordingly, discovery may reveal the Micron knew of the ’378 Patent and Micron’s unauthorized use thereof even before the filing of the original Complaint.

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71. Micron knows (or believes that there is a high probability, but is taking deliberate steps to avoid knowing, including by not adequately investigating the allegations against it) that its actions are inducing infringement and are intended to induce infringement. For example, Micron encourages, trains, instructs, and provides support and technical assistance to, others to directly infringe the '378 Patent by contracting with, encouraging, and instructing third parties, including equipment and design manufacturers, device manufacturers, distributors, customers, and other third parties to make, use, sell, offer for sale, and/or import into the United States, the '378 Accused Products and products that incorporate the '378 Accused Products. For example, Micron publishes and provides technical materials, product specifications, and promotional literature for the '378 Accused Products that instruct and encourage Micron's customers and other third parties to integrate the '378 Accused Products into products made, used, sold, offered for sale, and/or imported into the United States, and works with customers and potential customers to design in the '378 Accused Products with knowledge that those products will be used and sold in the United States.

72. Since at least the filing of the original Complaint in this action, Micron's infringement has been willful, as exemplified by, for example, its actions, or lack thereof—including its failure to cease its infringing conduct, to seek a license, or even to assert that or explain how it does not infringe—since having been put on notice of its infringement of the '378 Patent. Further, as explained above, discovery may reveal that Micron knew of the '378 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint, but nevertheless that Micron made the choice to continue engaging in the conduct that infringes YMTC's '378 Patent.

73. As a result of Micron's infringement of the '378 Patent, YMTC is entitled to monetary damages in an amount adequate to compensate for Micron's infringement, but in no event less than a reasonable royalty for the use made of the invention by Micron, together with interest and costs as fixed by the Court.

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COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 10,937,806

74. YMTC incorporates by reference and re-alleges all the foregoing paragraphs of this Complaint as if fully set forth herein.

75. YMTC owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in and to U.S. Patent No. 10,937,806, entitled "Through Array Contact (TAC) for Three-Dimensional Memory Devices." A true and correct copy of the '806 Patent is attached as Exhibit 4.

76. The '806 Patent was duly and legally issued by the United States Patent and Trademark Office on March 2, 2021.

77. Micron infringes under 35 U.S.C. § 271(a) at least claim 8 of the '806 Patent, literally and/or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States, without authorization, at least Micron's 128L Accused Products (for example, Micron BX500 2.5 480GB SSD), 176L Accused Products (for example, the Micron SSD model 3400 NVMe and the Micron SSD model 2400 PCIe Gen 4), and 232L Accused Products (for example, the Micron SSD model 2550) (collectively, "the '806 Accused Products"). Further identification of the '806 Accused Products will be provided in YMTC's infringement contentions disclosed pursuant to the Court's scheduling order, and/or as discovery progresses.

78. The '806 Accused Products meet each and every limitation of at least claim 8 of the '806 Patent. Claim charts providing examples of how the '806 Accused Products practice each limitation of claim 8 of the '806 Patent are attached as Exhibits 46-48 hereto, and are incorporated by reference herein.

79. In its Motion to Dismiss (ECF No. 21), Micron asserted that the original Complaint failed to identify the claimed through array contact (TAC) region. Attached Exhibits 46-48 show precisely where the TAC region can be found within the '806 Accused Products. Micron designs, manufactures, analyzes, and tests the '806 Accused Products, and knew when it filed its Motion to Dismiss that the '806 Accused Products have the TAC region as claimed—or willfully blinded itself to that fact by failing to conduct a reasonable investigation of YMTC's allegations.

80. Micron also has infringed and continues to infringe under 35 U.S.C. § 271(g) by importing into the United States or offering to sell, selling, or using within the United States a product which is made by a process patented in the United States during the term of the '806 Patent. Micron has practiced the patented process; or owns or controls, or is owned or controlled by the person who has practiced the patented process. Micron sells its products to customers, including customers in this District, in the computer, networking, storage, consumer electronics, solid-state drive, and mobile telecommunications markets. Micron encourages its customers to import, sell, resell, offer to sell, and/or resell the '806 Accused Products.

81. Micron also actively induces infringement of claim 8 of the '806 Patent under 35 U.S.C. § 271(b), and has done so since at least November 10, 2023, by actively encouraging others to infringe (such infringement by others being by way of using, selling, offering to sell, or importing into the United States the '806 Accused Products). Since at least the filing of the original Complaint in this action, Micron has known of the '806 Patent and its infringement thereof. Since before the filing of the original Complaint, Micron has had knowledge of YMTC's patent portfolio with respect to 3D NAND technology and that portfolio's relevance and application to Micron's own products. Accordingly, discovery may reveal the Micron knew of the '806 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint.

82. Micron knows (or believes that there is a high probability, but is taking deliberate steps to avoid knowing, including by not adequately investigating the allegations against it) that its actions are inducing infringement and are intended to induce infringement. For example, Micron encourages, trains, instructs, and provides support and technical assistance to, others to directly infringe the '806 Patent by contracting with, encouraging, and instructing third parties, including equipment and design manufacturers, device manufacturers, distributors, customers, and other third parties to make, use, sell, offer for sale, and/or import into the United States, the '806 Accused Products and products that incorporate the '806 Accused Products. For example, Micron publishes and provides technical materials, product specifications, and promotional literature for the '806 Accused Products that instruct and encourage Micron's customers and other third parties to integrate the '806 Accused

Products into products made, used, sold, offered for sale, and/or imported into the United States, and works with customers and potential customers to design in the '806 Accused Products with knowledge that those products will be used and sold in the United States.

83. Since at least the filing of the original Complaint in this action, Micron's infringement has been willful, as exemplified by, for example, its actions, or lack thereof—including its failure to cease its infringing conduct, to seek a license, or even to assert that or explain how it does not infringe—since having been put on notice of its infringement of the '806 Patent. Further, as explained above, discovery may reveal that Micron knew of the '806 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint, but nevertheless that Micron made the choice to continue engaging in the conduct that infringes YMTC's '806 Patent.

84. As a result of Micron's infringement of the '806 Patent, YMTC is entitled to monetary damages in an amount adequate to compensate for Micron's infringement, but in no event less than a reasonable royalty for the use made of the invention by Micron, together with interest and costs as fixed by the Court.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 10,861,872

85. YMTC incorporates by reference and re-alleges all the foregoing paragraphs of this Complaint as if fully set forth herein.

86. YMTC owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in and to U.S. Patent No. 10,861,872, entitled "Three Dimensional Memory Device and Methods for Forming the Same." A true and correct copy of the '872 Patent is attached as Exhibit 5.

87. The '872 Patent was duly and legally issued by the United States Patent and Trademark Office on December 8, 2020.

88. Micron infringes under 35 U.S.C. § 271(a) at least claim 1 of the '872 Patent, literally and/or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States, without authorization, at least Micron's 128L Accused Products (for example,

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Micron BX500 2.5 480GB SSD), 176L Accused Products (for example, the Micron SSD model 3400 NVMe and the Micron SSD model 2400 PCIe Gen 4), and 232L Accused Products (for example, the Micron SSD model 2550) (collectively, "the '872 Accused Products"). Further identification of the '872 Accused Products will be provided in YMTC's infringement contentions disclosed pursuant to the Court's scheduling order, and/or as discovery progresses.

89. The '872 Accused Products meet each and every limitation of at least claim 1 of the '872 Patent. Claim charts providing examples of how the '872 Accused Products practice each limitation of claim 1 of the '872 Patent are attached as Exhibits 49-51 hereto, and are incorporated by reference herein.

90. In its Motion to Dismiss (ECF No. 21), Micron asserted that the original Complaint failed to identify the claimed dummy structures. Attached Exhibits 49-51 show precisely where the claimed dummy structures can be found within the '872 Accused Products. Micron designs, manufactures, analyzes, and tests the '872 Accused Products, and knew when it filed its Motion to Dismiss that the '872 Accused Products have dummy structures as claimed—or willfully blinded itself to that fact by failing to conduct a reasonable investigation of YMTC's allegations.

91. Micron also actively induces infringement of claim 1 of the '872 Patent under 35 U.S.C. § 271(b), and has done so since at least November 10, 2023, by actively encouraging others to infringe (such infringement by others being by way of using, selling, offering to sell, or importing into the United States the '872 Accused Products). Since at least the filing of the original Complaint in this action, Micron has known of the '872 Patent and its infringement thereof. Since before the filing of the original Complaint, Micron has had knowledge of YMTC's patent portfolio with respect to 3D NAND technology and that portfolio's relevance and application to Micron's own products. Accordingly, discovery may reveal the Micron knew of the '872 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint.

92. Micron knows (or believes that there is a high probability, but is taking deliberate steps to avoid knowing, including by not adequately investigating the allegations against it) that its actions are inducing infringement and are intended to induce infringement. For example, Micron encourages,

trains, instructs, and provides support and technical assistance to, others to directly infringe the '872 Patent by contracting with, encouraging, and instructing third parties, including equipment and design manufacturers, device manufacturers, distributors, customers, and other third parties to make, use, sell, offer for sale, and/or import into the United States, the '872 Accused Products and products that incorporate the '872 Accused Products. For example, Micron publishes and provides technical materials, product specifications, and promotional literature for the '872 Accused Products that instruct and encourage Micron's customers and other third parties to integrate the '872 Accused Products into products made, used, sold, offered for sale, and/or imported into the United States, and works with customers and potential customers to design in the '872 Accused Products with knowledge that those products will be used and sold in the United States.

93. Since at least the filing of the original Complaint in this action, Micron's infringement has been willful, as exemplified by, for example, its actions, or lack thereof—including its failure to cease its infringing conduct, to seek a license, or even to assert that or explain how it does not infringe—since having been put on notice of its infringement of the '872 Patent. Further, as explained above, discovery may reveal that Micron knew of the '872 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint, but nevertheless that Micron made the choice to continue engaging in the conduct that infringes YMTC's '872 Patent.

94. As a result of Micron's infringement of the '872 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Micron's infringement, but in no event less than a reasonable royalty for the use made of the invention by Micron, together with interest and costs as fixed by the Court.

COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 11,468,957

95. YMTC incorporates by reference and re-alleges all the foregoing paragraphs of this Complaint as if fully set forth herein.

96. YMTC owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in and to U.S. Patent No. 11,468,957, entitled

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"Architecture and Method for NAND Memory Operation." A true and correct copy of the '957 Patent is attached as Exhibit 6.

97. The '957 Patent was duly and legally issued by the United States Patent and Trademark Office on October 11, 2022.

98. Micron infringes under 35 U.S.C. § 271(a) at least claim 1 of the '957 Patent, literally and/or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States, without authorization, at least Micron's 176L Accused Products (for example, the Micron SSD model 2400 PCIe Gen4) ("the '957 Accused Products"). Further identification of the '957 Accused Products will be provided in Plaintiff's infringement contentions disclosed pursuant to the Court's scheduling order, and/or as discovery progresses.

99. The '957 Accused Products embody and/or are made using each and every limitation of at least claim 1 of the '957 Patent. A claim chart providing examples of how the '957 Accused Products practice each limitation of claim 1 of the '957 Patent is attached as Exhibit 52 hereto, and is incorporated by reference herein.

100. In its Motion to Dismiss (ECF No. 21), Micron asserted that the original Complaint failed to identify the application of certain voltages as claimed. Attached Exhibit 52 shows examples of how the '957 Accused Products are configured to apply those voltages precisely as claimed. Micron designs, manufactures, analyzes, and tests the '957 Accused Products, and knew when it filed its Motion to Dismiss that the '957 Accused Products meet the claimed voltage limitations—or willfully blinded itself to that fact by failing to conduct a reasonable investigation of YMTC's allegations.

101. Micron also actively induces infringement of claim 1 of the '957 Patent under 35 U.S.C. § 271(b), and has done so since at least November 10, 2023, by actively encouraging others to infringe (such infringement by others being by way of using, selling, offering to sell, or importing into the United States the '957 Accused Products). Since at least the filing of the original Complaint in this action, Micron has known of the '957 Patent and its infringement thereof. Since before the filing of the original Complaint, Micron has had knowledge of YMTC's patent portfolio with respect to 3D NAND technology and that portfolio's relevance and application to Micron's own products.

Accordingly, discovery may reveal the Micron knew of the ’957 Patent and Micron’s unauthorized use thereof even before the filing of the original Complaint.

102. Micron knows (or believes that there is a high probability, but is taking deliberate steps to avoid knowing, including by not adequately investigating the allegations against it) that its actions are inducing infringement and are intended to induce infringement. For example, Micron encourages, trains, instructs, and provides support and technical assistance to, others to directly infringe the ’957 Patent by contracting with, encouraging, and instructing third parties, including equipment and design manufacturers, device manufacturers, distributors, customers, and other third parties to make, use, sell, offer for sale, and/or import into the United States, the ’957 Accused Products and products that incorporate the ’957 Accused Products. For example, Micron publishes and provides technical materials, product specifications, and promotional literature for the ’957 Accused Products that instruct and encourage Micron’s customers and other third parties to integrate the ’957 Accused Products into products made, used, sold, offered for sale, and/or imported into the United States, and works with customers and potential customers to design in the ’957 Accused Products with knowledge that those products will be used and sold in the United States.

103. Since at least the filing of the original Complaint in this action, Micron’s infringement has been willful, as exemplified by, for example, its actions, or lack thereof—including its failure to cease its infringing conduct, to seek a license, or even to assert that or explain how it does not infringe—since having been put on notice of its infringement of the ’957 Patent. Further, as explained above, discovery may reveal that Micron knew of the ’957 Patent and Micron’s unauthorized use thereof even before the filing of the original Complaint, but nevertheless that Micron made the choice to continue engaging in the conduct that infringes YMTC’s ’957 Patent.

104. As a result of Micron’s infringement of the ’957 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Micron’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Micron, together with interest and costs as fixed by the Court.

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COUNT VII: INFRINGEMENT OF U.S. PATENT NO. 11,600,342

105. YMTC incorporates by reference and re-alleges all the foregoing paragraphs of this Complaint as if fully set forth herein.

106. YMTC owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in and to U.S. Patent No. 11,600,342, entitled "Method for Reading Three-Dimensional Flash Memory." A true and correct copy of the '342 Patent is attached as Exhibit 7.

107. The '342 Patent was duly and legally issued by the United States Patent and Trademark Office on March 7, 2023.

108. Micron infringes under 35 U.S.C. § 271(a) at least claim 1 of the '342 Patent, literally and/or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States, without authorization, at least Micron's 176L Accused Products (for example, Micron SSD model 2400 PCIe Gen 4) and 232L Accused Products (for example, the Micron SSD model 2550) (collectively, "the '342 Accused Products").

109. The '342 Accused Products are used to perform and/or practice each and every limitation of at least claim 1 of the '342 Patent. Claim charts providing examples of how the '342 Accused Products practice each limitation of claim 1 of the '342 Patent are attached as Exhibits 53-54 hereto, and are incorporated by reference herein.

110. In its Motion to Dismiss (ECF No. 21), Micron asserted that the original Complaint failed to identify how '342 Accused Products apply varying voltages during certain periods. Attached Exhibits 53-54 show examples of precisely where the claimed operations are performed within the '342 Accused Products. Micron designs, manufactures, analyzes, and tests the '342 Accused Products, and knew when it filed its Motion to Dismiss that the '342 Accused Products apply varying voltages as claimed—or willfully blinded itself to that fact by failing to conduct a reasonable investigation of YMTC's allegations.

111. Micron also actively induces infringement of claim 1 of the '342 Patent under 35 U.S.C. § 271(b), and has done so since at least November 10, 2023, by actively encouraging others to infringe

(such infringement by others being by way of using, selling, offering to sell, or importing into the United States the '342 Accused Products). Since at least the filing of the original Complaint in this action, Micron has known of the '342 Patent and its infringement thereof. Since before the filing of the original Complaint, Micron has had knowledge of YMTC's patent portfolio with respect to 3D NAND technology and that portfolio's relevance and application to Micron's own products. Accordingly, discovery may reveal the Micron knew of the '342 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint.

112. Micron knows (or believes that there is a high probability, but is taking deliberate steps to avoid knowing, including by not adequately investigating the allegations against it) that its actions are inducing infringement and are intended to induce infringement. For example, Micron encourages, trains, instructs, and provides support and technical assistance to, others to directly infringe the '342 Patent by contracting with, encouraging, and instructing third parties, including equipment and design manufacturers, device manufacturers, distributors, customers, and other third parties to make, use, sell, offer for sale, and/or import into the United States, the '342 Accused Products and products that incorporate the '342 Accused Products. For example, Micron publishes and provides technical materials, product specifications, and promotional literature for the '342 Accused Products that instruct and encourage Micron's customers and other third parties to integrate the '342 Accused Products into products made, used, sold, offered for sale, and/or imported into the United States, and works with customers and potential customers to design in the '342 Accused Products with knowledge that those products will be used and sold in the United States.

113. Since at least the filing of the original Complaint in this action, Micron's infringement has been willful, as exemplified by, for example, its actions, or lack thereof—including its failure to cease its infringing conduct, to seek a license, or even to assert that or explain how it does not infringe—since having been put on notice of its infringement of the '342 Patent. Further, as explained above, discovery may reveal that Micron knew of the '342 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint, but nevertheless that Micron made the choice to continue engaging in the conduct that infringes YMTC's '342 Patent.

114. As a result of Micron's infringement of the '342 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Micron's infringement, but in no event less than a reasonable royalty for the use made of the invention by Micron, together with interest and costs as fixed by the Court.

COUNT VIII: INFRINGEMENT OF U.S. PATENT NO. 10,868,031

115. YMTC incorporates by reference and re-alleges all the foregoing paragraphs of this Complaint as if fully set forth herein.

116. YMTC owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in and to U.S. Patent No. 10,868,031, entitled "Multiple-Stack Three-Dimensional Memory Device And Fabrication Method Thereof." A true and correct copy of the '031 Patent is attached as Exhibit 8.

117. The '031 Patent was duly and legally issued by the United States Patent and Trademark Office on December 15, 2020.

118. Micron infringes under 35 U.S.C. § 271(a) at least claim 1 of the '031 Patent, literally and/or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States, without authorization, at least Micron's 128L Accused Products (for example, Micron BX500 2.5 480GB SSD), and Micron's 176L Accused Products (for example, the Micron SSD model 3400 NVMe and the Micron SSD model 2400 PCIe Gen 4) (collectively, "the '031 Accused Products"). Further identification of the '031 Accused Products will be provided in YMTC's infringement contentions disclosed pursuant to the Court's scheduling order, and/or as discovery progresses.

119. The '031 Accused Products meet each and every limitation of at least claim 1 of the '031 Patent. Claim charts providing examples of how the '031 Accused Products practice each limitation of claim 1 of the '031 Patent are attached as Exhibits 55-56 hereto, and are incorporated by reference herein.

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120. In its Motion to Dismiss (ECF No. 21), Micron asserted that the original Complaint failed to identify the claimed supporting pillar comprising aligned sidewall surfaces. Attached Exhibits 55-56 show precisely where that claimed feature can be found within the '031 Accused Products. Micron designs, manufactures, analyzes, and tests the '031 Accused Products, and knew when it filed its Motion to Dismiss that the '031 Accused Products meet that limitation as claimed—or willfully blinded itself to that fact by failing to conduct a reasonable investigation of YMTC's allegations.

121. Micron also actively induces infringement of claim 1 of the '031 Patent under 35 U.S.C. § 271(b), and has done so since at least November 10, 2023, by actively encouraging others to infringe (such infringement by others being by way of using, selling, offering to sell, or importing into the United States the '031 Accused Products). Since at least the filing of the original Complaint in this action, Micron has known of the '031 Patent and its infringement thereof. Since before the filing of the original Complaint, Micron has had knowledge of YMTC's patent portfolio with respect to 3D NAND technology and that portfolio's relevance and application to Micron's own products. Accordingly, discovery may reveal the Micron knew of the '031 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint.

122. Micron knows (or believes that there is a high probability, but is taking deliberate steps to avoid knowing, including by not adequately investigating the allegations against it) that its actions are inducing infringement and are intended to induce infringement. For example, Micron encourages, trains, instructs, and provides support and technical assistance to, others to directly infringe the '031 Patent by contracting with, encouraging, and instructing third parties, including equipment and design manufacturers, device manufacturers, distributors, customers, and other third parties to make, use, sell, offer for sale, and/or import into the United States, the '031 Accused Products and products that incorporate the '031 Accused Products. For example, Micron publishes and provides technical materials, product specifications, and promotional literature for the '031 Accused Products that instruct and encourage Micron's customers and other third parties to integrate the '031 Accused Products into products made, used, sold, offered for sale, and/or imported into the United States, and

works with customers and potential customers to design in the '031 Accused Products with knowledge that those products will be used and sold in the United States.

123. Since at least the filing of the original Complaint in this action, Micron's infringement has been willful, as exemplified by, for example, its actions, or lack thereof—including its failure to cease its infringing conduct, to seek a license, or even to assert that or explain how it does not infringe—since having been put on notice of its infringement of the '031 Patent. Further, as explained above, discovery may reveal that Micron knew of the '031 Patent and Micron's unauthorized use thereof even before the filing of the original Complaint, but nevertheless that Micron made the choice to continue engaging in the conduct that infringes YMTC's '031 Patent.

124. As a result of Micron's infringement of the '031 Patent, Plaintiff is entitled to monetary damages in an amount adequate to compensate for Micron's infringement, but in no event less than a reasonable royalty for the use made of the invention by Micron, together with interest and costs as fixed by the Court.

PRAYER FOR RELIEF

WHEREFORE, YMTC respectfully requests judgment in its favor and against Micron, and respectfully requests the following relief:

1. A judgment in favor of YMTC that Micron has infringed and is infringing, either literally and/or under the doctrine of equivalents, one or more claims of the Asserted Patents;

2. An order pursuant to 35 U.S.C. § 283 enjoining Micron and its subsidiaries, parents, divisions, affiliates, successors, assigns, transferees, officers, directors, attorneys, agents, servants, employees, parties in privity with, and all other persons in active concert or participation with any of the foregoing, from continued acts of infringement of any claim of the Asserted Patents;

3. A judgment and order requiring Micron to pay YMTC its damages, costs, expenses, and pre-judgment and post-judgment interest for Micron's infringement;

4. If a permanent injunction is not granted, then a judicial determination of the conditions for Micron's future infringement, such as an ongoing royalty;

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5. A determination that Micron's infringement has been willful;

6. A determination that the damages against Micron be increased pursuant to 35 U.S.C. § 284 because of the willful and deliberate nature of Micron's conduct;

7. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to YMTC its reasonable attorneys' fees against Micron; and

8. All other relief that the Court deems just and proper.

JURY TRIAL DEMAND

YMTC respectfully demands a jury trial pursuant to Rule 38(b) of the Federal Rules of Civil Procedure on all claims and issues so triable.

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Dated: February 2, 2024

By: /s/ Andrew T. Radsch

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