UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

ADVANCED MEMORY TECHNOLOGIES, LLC, Plaintiff, vs. MICRON TECHNOLOGY, INC., Defendant.	Civil Action No. 1:25-cv-01036 **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement in which Plaintiff Advanced Memory Technologies, LLC ("AMT" or "Plaintiff") makes the following allegations against Micron Technology, Inc. ("Micron") for infringing the Patents asserted in this matter.

PARTIES

1. Plaintiff AMT is a Texas limited liability company with its principal place of business at 825 Watters Creek Blvd. Suite 250, Allen, Texas 75013.

2. Defendant Micron is a corporation organized and existing under the laws of Delaware. On information and belief, Micron Technology has regular and established places of business at 101 West Louis Henna Boulevard, Suite 210, Austin, Texas 78728 and 1500 North Greenville Avenue, Suite 900, Richardson, Texas 75081. On information and belief, Micron Technology is registered to do business in Texas and can be served through its registered agent Corporation Service Company d/b/a CSC-Lawyers Incorporating Service Agent, 211 E 77th Street, Suite 620, Austin, Texas 78701.

JURISDICTION AND VENUE

3. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 1 *et seq.*

4. Defendant is subject to this Court's specific personal jurisdiction pursuant to due process and the Texas Long Arm Statute because it has sufficient minimum contacts and/or has engaged in continuous and systematic activities in the forum as a result of business conducted within Texas and this District. Personal jurisdiction also exists over Defendant because it directly and/or through its subsidiaries and agents makes, imports, ships, distributes, offers for sale, sells, uses, and advertises (including offering products and services through its websites) infringing semiconductor memory modules in the United States, Texas, and this District.

5. On information and belief, Defendant is the only U.S.-based manufacturer of memory chips.[1] Micron's business includes the manufacture and sale of semiconductor devices, including NAND flash memory and dynamic random access memory ("DRAM"). As of the first fiscal quarter of 2025, DRAM products accounted for 73% of Micron's revenues, with NAND products accounting for 26%.[2]

6. On information and belief, Defendant has significant research and development operations in Texas and within this District relating to the accused products. Defendant has at least two locations in Texas, including: 101 West Louis Henna Boulevard, Suite 210, Austin, Texas 78728, and 1500 North Greenville Avenue, Suite 900, Richardson, Texas 75081.[3]

---

[1] U.S. Dep't of Commerce, *Biden-Harris Administration Announces Preliminary Terms With Micron to Onshore Leading-Edge Memory Chip Production in U.S. for First Time in Decades*, https://www.commerce.gov/news/press-releases/2024/04/biden-harris-administration-announces-preliminary-terms-micron-onshore (Apr. 25, 2024).

[2] Micron, *Financial Results: FQ1 2025*, https://investors.micron.com/static-files/823daff3-66d2-4db0-aa63-43ba39ef728b, last accessed June 27, 2025.

[3] Micron, *Locations*, https://www.micron.com/about/locations?srsltid=AfmBOoo3TOb8-a_AfS6mnhwTcX0j4d5ZEsWQjjp9CuVWMtqC2ZGM8Zb9, last accessed June 27, 2025.

7. On information and belief, Micron is actively expanding its presence and activities in Texas. Based on publicly available information, Micron recently announced a $30 million investment in a new office space in Texas, which is expected to bring approximately 250 jobs.[4] Micron's Chief Technology Officer and Products Officer, Scott DeBoer, has stated that "Micron is excited to continue to grow our R&D capability in Texas, with a focus on enabling future industry leading memory products."[5]

8. Venue is proper against Defendant in this District pursuant to 28 U.S.C. §§ 1391(b) and (c) and/or 1400(b) because Defendant has committed and continues to commit acts of patent infringement in this District by, at least, directly and/or directly making, using, selling, offering to sell, or importing products that infringe one or more claims of the Patents-in-Suit, and (2) has done and continues to do business in this District by maintaining regular and established places of business within the District, including at least 101 West Louis Henna Boulevard, Suite 210, Austin, Texas 78728.

9. On information and belief, Micron has a regular and established place of business at 101 West Louis Henna Boulevard, Suite 210, Austin, Texas 78728 called the Micron Storage Solutions Center ("MSSC"). In 2016, Micron opened the MSSC in Austin, where it "leads its research in storage software and where Micron engineers are uncovering a path to better architect storage software and operating systems."[6]

10. On information and belief, Micron engages in the design of semiconductor

---

[4] Richardson Economic Development, *Global Semiconductor Leader Micron Technology Relocating North Texas Workforce to Richardson*, https://www.richardsoneconomicdevelopment.com/news/global-semiconductor-leader-micron-technology-relocating-north-texas-workforce-to-richardson (Jan. 23, 2025).
[5] *Id.*
[6] Micron, *Micron Simplifies Path to Next-Generation All-Flash Data Center With Introduction of Micron Accelerated Solutions*, (Apr. 12, 2016), available at https://investors.micron.com/news-releases/news-release-details/micron-simplifies-path-next-generation-all-flash-data-center?ReleaseID=964697.

products, including the allegedly infringing products in this litigation, in this District. On information and belief, the MSSC in Austin is the base for Micron's storage software development team and activities relating to software development to assist datacenters optimize memory performance.[7]

11. On information and belief, Micron engages in memory device design, development, and ongoing customer support in this District. Based on publicly available information, Micron has recently posted job positions for a Senior Director of Storage Solutions Architecture in this District, whose role will be to "[l]ead Micron's Storage and NAND Standardization Strategy" and "[o]wn the medium to long-term technology vision for our SSD and NAND Roadmap."[8] Micron is also recruiting additional personnel to assist their DRAM technology operations in this District, including an engineer to support datacenter customers with DRAM products.[9] It is also currently hiring a Senior SOC Pre-Silicon Verification Engineer – HBM Design in Richardson, who "will be responsible for the design & development of the next-generation of HBM DRAM products."[10]

12. On information and belief, many of Micron's customers for the accused products, such as Apple Inc. ("Apple"), Dell Technologies Inc. ("Dell"), International Business Machines Corporation ("IBM"), and NVIDIA Corporation ("NVIDIA"), have significant operations in this District. Darren Thomas, Vice President of Micron's storage unit, has touted Micron's proximity

---

[7] Lilly Rockwell, *Memory Chipmaker Micron Quietly Grows Austin Presence*, AUSTIN AMERICA-STATESMAN (Apr. 19, 2016), available at https://www.statesman.com/story/news/2016/04/19/memory-chipmaker-micron-quietly-grows-austin-presence/10173056007/.

[8] https://careers.micron.com/careers/job/23476146, last accessed Feb. 16, 2025 (attached as Exhibit E).

[9] https://careers.micron.com/careers/job/26744028, last accessed Feb. 16, 2025 (attached as Exhibit F).

[10] https://careers.micron.com/careers/job/26916788, last accessed June 27, 2025 (attached as Exhibit G).

to major customers in Austin as a strategic advantage.[11] One of Micron's major customers, Apple, has a substantial presence in this District, including a 3-million-square-foot campus at 6900 W Parmer Lane, Austin, Texas 78729.[12] Dell Technologies has its headquarters in this District at One Dell Way, Round Rock, Texas 78682. International Business Machines Corporation ("IBM") has an office at 11501 Burnet Road, Austin, Texas, 78758. NVIDIA currently occupies 57,000 square feet across two offices in this District—at 11001 Lakeline Boulevard, Suite 100, and 10801 Mopac Expressway in Austin—and is reportedly in the market for a 300,000-square-foot lease in North Austin.[13]

THE PATENTS

13. This complaint asserts causes of action for infringement of United States Patent No. 7,920,018 (the "'018 Patent"), United States Patent No. 7,969,231 (the "'231 Patent"), United States Patent No. 8,519,778 (the "'778 Patent"), and United States Patent No. 8,593,888 (the "'888 Patent") (collectively, the "Asserted Patents").

14. Each of the four Asserted Patents claims patent-eligible subject matter and is a valid and enforceable U.S. patent, the entire right, title, and interest to which AMT owns by assignment.

U.S. Patent No. 7,920,018

15. U.S. Patent No. 7,920,018 is entitled "Booster Circuit," and was issued by the PTO to inventor Seiji Yamahira on April 5, 2011. AMT holds by assignment all rights and title to the

[11] Lilly Rockwell, *Memory Chipmaker Micron Quietly Grows Austin Presence*, AUSTIN AMERICA-STATESMAN (Apr. 19, 2016), available at https://www.statesman.com/story/news/2016/04/19/memory-chipmaker-micron-quietly-grows-austin-presence/10173056007/.

[12] Apple, *Apple Expands in Austin* (Nov. 20, 2019), available at https://www.apple.com/newsroom/2019/11/apple-expands-in-austin/#:~:text=Apple%20in%20Austin,expected%20to%20open%20in%202022.

[13] The Real Deal, *Nvidia Signals Tech Sector Growth With Major Office Expansion*, (Sept. 9, 2024) available at https://therealdeal.com/texas/austin/2024/09/09/nvidia-shopping-for-300k-sf-of-office-space-in-austin/

’018 Patent, including the sole and exclusive right to bring a claim for its infringement. A copy of the ’018 Patent is attached to this complaint as Exhibit A.

16. The application preceding the ’018 Patent was a divisional of U.S. Patent Application No. 12/015,882, which became U.S. Patent No. 7,777,557.

17. The ’018 Patent generally claims a structure of a booster circuit.

18. The invention disclosed and claimed in the ’018 Patent generally allows a more efficient booster circuit with a reduced footprint.

19. To the extent applicable, Plaintiff has complied with 35 U.S.C. § 287(a) with respect to the ’018 Patent.

U.S. Patent No. 7,969,231

20. U.S. Patent No. 7,969,231 is entitled “Internal Voltage Generating Circuit,” and was issued by the PTO to inventor Seiji Yamahira on June 28, 2011. AMT holds by assignment all rights and title to the ’231 Patent, including the sole and exclusive right to bring a claim for its infringement. A copy of the ’231 Patent is attached to this complaint as Exhibit B.

21. The ’231 Patent generally claims a structure of an internal voltage generating circuit.

22. The invention disclosed and claimed in the ’231 Patent generally allows a more efficient circuit with a reduced footprint.

23. To the extent applicable, Plaintiff has complied with 35 U.S.C. § 287(a) with respect to the ’231 Patent.

U.S. Patent No. 8,519,778

24. U.S. Patent No. 8,519,778 is entitled “Semiconductor Integrated Circuit and Booster Circuit Including the Same,” and was issued by the PTO to inventor Seiji Yamahira on

August 27, 2013. AMT holds by assignment all rights and title to the ’778 Patent, including the sole and exclusive right to bring a claim for its infringement. A copy of the ’778 Patent is attached to this complaint as Exhibit C.

25. The ’778 Patent generally claims a structure of a semiconductor integrated circuit.

26. The invention disclosed and claim in the ’778 Patent generally allows a semiconductor device with reduced high frequency noise in voltage regulation.

27. To the extent applicable, Plaintiff has complied with 35 U.S.C. § 287(a) with respect to the ’778 Patent.

U.S. Patent No. 8,593,888

28. U.S. Patent No. 8,593,888 is entitled “Semiconductor Memory Device,” and was issued by the PTO to inventors Reiji Mochida, Takafumi Maruyama, and Yukimasa Hamamoto on November 26, 2013. AMT holds by assignment all rights and title to the ’888 Patent, including the sole and exclusive right to bring a claim for its infringement. A copy of the ’888 Patent is attached to this complaint as Exhibit D.

29. The ’888 Patent generally claims a structure of a semiconductor memory device capable of erasing and writing memory contents in a memory cell using an electric signal.

30. The invention disclosed and claimed in the ’888 Patent generally allows a semiconductor memory device with a reduced footprint.

31. To the extent applicable, Plaintiff has complied with 35 U.S.C. § 287(a) with respect to the ’888 Patent.

MICRON’S USE OF AMT’S PATENTED TECHNOLOGY

32. Micron manufactures and sells semiconductor devices, including NAND flash memory and DRAM modules. NAND flash memory is a type of non-volatile memory, meaning

data is not lost after power is turned off. DRAM, short for dynamic random access memory, is a type of volatile memory and DRAM devices require power to retain data. At a high level, the key differences relate to speed and energy consumption: DRAM memory is faster than NAND flash, but DRAM also consumes more power.

33. The NAND flash memory and DRAM modules Micron manufactures and sells are, in turn, incorporated by its customers into a vast array of consumer products, including smartphones, servers, computers, tablets, gaming consoles, IoT (internet of things or "smart") devices, and automotive devices. Such memory devices include, but are not limited to, those sold to consumers under its "Crucial" brand.

34. Hereafter, the term "Accused Flash Memory Modules" refers to all NAND flash memory modules manufactured, sold, and/or offered for sale by Micron, including but not limited to solid-state drives ("SSDs"), including internal SSDs and portable SSDs; USB flash drives; PCI devices; flash package dies; and flash bare dies.

35. Hereinafter, the term "Accused DRAM Modules" refers to all DRAM modules (including, but not limited to, DDR, LPDDR, HBM, and any other variants) manufactured, sold, and/or offered for sale by Micron.

COUNT ONE
INFRINGEMENT OF U.S. PATENT NO. 7,920,018

36. AMT repeats and incorporates by reference each preceding paragraph as if fully set forth herein and further states:

37. Micron has directly infringed and continues to directly infringe the '018 Patent under 35 U.S.C. § 271(a), either literally or through the doctrine of equivalents, by making, using, selling, offering to sell, and/or importing in or into the United States Accused DRAM Modules that practice the '018 Patent as described below, including at least Claim 1. By way of example,

such Accused DRAM Modules include the Micron DRAM LPDDR5X Y52P die and Micron DDR5 DRAM Y32A die devices manufactured, used, sold, offered for sale, and/or imported by Micron.

38. For example, Claim 1 is illustrative of the claims of the ’018 Patent. It recites “[a] booster circuit comprising:

> a first boosting cell row including N stages (N≧1) of the boosting cells;
>
> a second boosting cell row including M stages (M≧1) of boosting cells; and
>
> at least one analog comparison circuit for outputting a well bias potential generated by an input potential of the boosting cell on the i-th stage (1≦i≦N) of the first boosting cell row and an input potential of the boosting cell on the i-th stage (1≦i≦M) of the second boosting cell row, wherein:
>
> each boosting cell includes a first-conductivity type first well region on a substrate, a second-conductivity type second well region in the first well region, and at least one switching element in either or both of the first well region and the second well region,
>
> the at least one switching element is configured to transfer charges from a first terminal to a second terminal, and
>
> the well bias potential of the at least one analog comparison circuit is applied to the first well region of the switching element included in the at least one boosting cell of the first and second boosting cell rows.”

39. The exemplar Micron DRAM LPDDR5X Y52P and Micron DDR5 DRAM Y32A devices manufactured by Micron meets every element of this claim.[14]

40. The Micron DRAM LPDDR5X Y52P and Micron DDR5 DRAM Y32A contain NOR flash memory elements with a booster circuit of an infringing structure.

41. In each product, this booster circuit is comprised of two rows of boosting cells, with each row containing at least one boosting cell.

[14] This description of infringement is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which the Micron DRAM LPDDR5X Y52P and Micron DDR5 DRAM Y32A infringe.

42. In each product, this booster circuit is also comprised of at least one analog comparison circuit for outputting a well bias potential. The well bias potential is generated by an input potential of a boosting cell in each of the two rows.

43. In each product, within this booster circuit, each boosting cell includes a first well region of one conductivity type on a substrate, a second well region of another conductivity type in the first well region, and one or more switching elements in these regions.

44. In each product, within this booster circuit, the switching elements transfer charges from one terminal to another terminal.

45. In each product, within this booster circuit, the well bias potential of the analog comparison circuit is applied to the first well region of the switching element in the boosting cells of the two rows.

46. Because the Micron DRAM LPDDR5X Y52P and Micron DDR5 DRAM Y32A devices contain at least one booster circuit matching the elements of Claim 1, these devices practice at least Claim 1 of the ’018 Patent.

47. Because the Micron DRAM LPDDR5X Y52P and Micron DDR5 DRAM Y32A practice at least Claim 1 of the ’018 Patent, all Accused DRAM Modules similarly infringe. For example, on information and belief, Micron uses similar design, layout, and structural features in all memory modules that contain booster circuits matching the elements of Claim 1 of the ’018 Patent, such that all Accused DRAM Modules infringe at least Claim 1 of the ’018 Patent in the same manner as the Micron DRAM LPDDR5X Y52P and Micron DDR5 DRAM Y32A.

48. In addition to directly infringing the ’018 Patent by making, using, selling, offering to sell, and/or importing Accused DRAM Modules into the United States, Micron likewise has induced infringement of the ’018 Patent under 35 U.S.C. § 271(b). Micron has actively encouraged

its customers to directly infringe the ’018 Patent by using, selling, offering for sale, and/or importing electronic devices and products containing the Accused DRAM Modules. Micron, through its sales, engineering, and technical staff, actively encourages its customers to purchase the infringing Accused DRAM Modules and incorporate them into the customers’ own consumer products. Micron’s staff tout the specifications and features of the Accused DRAM Modules and, on information and belief, even tailor the Accused DRAM Modules to customers’ needs so the Accused DRAM Modules can more seamlessly be incorporated into the customers’ own products. Micron also provides ongoing technical support for the Accused DRAM Modules, including firmware updates, to its customers.

49. Micron purposefully and knowingly sells and offers to sell the Accused DRAM Modules to its subsidiaries, distributors, and/or customers knowing and expecting that the Accused DRAM Modules or products containing them will enter the United States, where they will be imported, used, sold, and offered for sale by those distributors, customers, and/or other end-users.

50. As a result of Micron’s active encouragement and intentional inducement, its customers have committed acts directly infringing the ’018 Patent. Micron has known that its customers’ acts constituted direct infringement of at least one claim of the ’018 Patent at least since the filing of this Complaint.

51. Moreover, Micron intends to cause, and has taken affirmative steps to induce, infringement by customers and end-users by at least, *inter alia*, encouraging, promoting, instructing, and/or directing the infringing use of the Accused DRAM Modules.

52. As detailed above, Micron DRAM LPDDR5X Y52P, Micron DDR5 DRAM Y32A, and other Accused DRAM Modules infringe at least Claim 1 of the ’018 Patent. Accordingly, by encouraging, promoting, instructing, and/or directing users to use the Micron

DRAM LPDDR5X Y52P, Micron DDR5 DRAM Y32A, and/or other Accused DRAM Modules, Micron is actively inducing infringement of the '018 Patent in violation of 35 U.S.C. § 271(b).

53. Micron likewise is liable as a contributory infringer of the '018 Patent under 35 U.S.C. § 271(c). Micron has offered to sell and/or sold within the United States the Micron DRAM LPDDR5X Y52P, Micron DDR5 DRAM Y32A, and/or other Accused DRAM Modules that practice the '018 Patent. The Accused DRAM Modules comprise booster circuits, each of which constitutes a material part of the '018 Patent's invention that can be incorporated into storage devices. Micron has known such Accused DRAM Modules to be especially adapted for practicing, and thus infringing, the '018 Patent, where the Accused DRAM Modules are not staple articles nor a commodity of commerce suitable for substantial non-infringing use.

54. Micron has had actual knowledge of the '018 Patent since at least September 30, 2011, when Micron was assigned Patent Application 12/387,655 (Pub. No. 2010-0283533), which identified Patent Application Pub. No. 2008-0169864 of United States Patent No. 7,777,557, of which the '018 Patent is a divisional, as prior art during a patent prosecution on March 4, 2010.

55. Micron's continued infringement of the '018 Patent since at least October 10, 2011, has been intentional, deliberate, and willful.

56. In the alternative, Micron has been aware of the '018 Patent since the filing of this complaint.

57. Micron's direct, induced, contributory, and willful infringement of the '018 Patent has caused, and will continue to cause, substantial damage to AMT. Therefore, AMT is entitled to an award of monetary damages adequate to compensate for Micron's past, present, and future infringement, but not less than reasonable royalty, together with pre-and post-judgment interest, attorneys' fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

COUNT TWO
INFRINGEMENT OF U.S. PATENT NO. 7,969,231

58. AMT repeats and incorporates by reference each preceding paragraph as if fully set forth herein and further states:

59. Micron has directly infringed and continues to directly infringe the ’231 Patent under 35 U.S.C. § 271(a), either literally or through the doctrine of equivalents, by making, using, selling, offering to sell, and/or importing in or into the United States Accused Flash Memory Modules and Accused DRAM Modules that practice the ’231 Patent as described below, including at least Claims 3 and 6. By way of example, such Accused Flash Memory Modules include the Micron B47R NAND Flash die devices manufactured, used, sold, offered for sale, and/or imported by Micron. By way of further example, such Accused DRAM Modules include devices manufactured, used, sold, offered for sale, and/or imported by Micron that incorporate the Micron DRAM DDR5 Y52K die, Micron LPDDR4 DRAM Z11M die, or Micron LPDDR5 DRAM Y42M die. For example, Claim 3 is illustrative of the claims of the ’231 Patent. It recites “[a]n internal voltage generating circuit comprising:

> a first charge pump circuit configured to generate a second voltage from a first voltage;
>
> a second charge pump circuit configured to generate a third voltage from the second voltage;
>
> a frequency dividing circuit configured to divide a first clock signal to generate a second clock signal; and
>
> a buffer circuit configured to select the first clock signal or the second clock signal and generate a third clock signal,
>
> wherein the third clock signal is supplied to the second charge pump circuit.”

60. By way of further example, Claim 6 is also illustrative of the claims of the ’231 Patent. Claim 6 recites “[a]n internal voltage generating circuit comprising:

a first charge pump circuit configured to a first charge pump circuit configured to generate a second voltage from a first voltage; and

a second charge pump circuit configured to generate a third voltage from the second voltage,

wherein a frequency of a clock signal to be su shied to the second charge pump circuit is changed in accordance with a control signal, and

the frequency of the clock signal to be supplied to the second charge pump circuit is changed to a frequency which is obtained by dividing an original frequency.

61. The exemplar Micron B47R NAND Flash device, Micron DRAM DDR5 Y52K die, Micron LPDDR4 DRAM Z11M die, and Micron LPDDR5 DRAM Y42M die manufactured by Micron meet every element of at least one of these claims.[15]

62. The Micron B47R NAND Flash contains NAND flash memory modules with an internal voltage generating circuit of an infringing structure.

63. This internal voltage generating circuit contains four circuits: (1) a charge pump circuit, which generates a second voltage from an initial voltage; (2) a second charge pump circuit, which generates a third voltage from the second voltage; (3) a frequency dividing circuit, which divides an initial clock signal to generate a second clock signal; and (4) a buffer circuit, which generates a third clock signal from the first or the second.

64. Within this internal voltage generating circuit, the third clock signal is supplied to the second charge pump circuit.

65. Because the Micron B47R NAND Flash contains at least one internal voltage generating circuit matching the elements of Claim 3, this device practices at least Claim 3 of the ’231 Patent.

[15] This description of infringement is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which the Micron B47R NAND, Micron DRAM DDR5 Y52K die, Micron LPDDR4 DRAM Z11M die, or Micron LPDDR5 DRAM Y42M die devices infringe.

66. Because the Micron B47R NAND Flash practices at least Claim 3 of the ’231 Patent, all Accused Flash Memory Modules similarly infringe. For example, on information and belief, Micron uses similar design, layout, and structural features in all NAND flash memory modules that contain at least one internal voltage generating circuit matching the elements of Claim 3 of the ’231 Patent, such that all Accused Flash Memory Modules infringe at least Claim 3 of the ’231 Patent in the same manner as the Micron B47R NAND Flash.

67. The Micron DRAM DDR5 Y52K die, Micron LPDDR4 DRAM Z11M die, and Micron LPDDR5 DRAM Y42M die devices contain DRAM memory modules with an internal voltage generating circuit of an infringing structure.

68. Within this internal voltage generating circuit, a first charge pump circuit is configured to generate a second voltage from a first voltage, and a second charge pump circuit is configured to generate a third voltage from the second voltage.

69. Within this internal voltage generating circuit, a frequency of a clock signal supplied to the second charge pump circuit is changed according to a control signal, and the frequency of the clock signal to be supplied to the second charge pump circuit is changed to a frequency determined by diving an original frequency.

70. Because the Micron DRAM DDR5 Y52K die, Micron LPDDR4 DRAM Z11M die, and Micron LPDDR5 DRAM Y42M die devices contain at least one internal voltage generating circuit matching the elements of Claim 6, these devices practice at least Claim 6 of the ’231 Patent.

71. In addition to directly infringing the ’231 Patent by making, using, selling, offering to sell, and/or importing Accused Flash Memory Modules and Accused DRAM Modules into the United States, Micron likewise has induced infringement of the ’231 Patent under 35 U.S.C. § 271(b). Micron has actively encouraged its customers to directly infringe the ’231 Patent by using,

selling, offering for sale, and/or importing electronic devices and products containing the Accused Flash Memory Modules and/or Accused DRAM Modules. Micron, through its sales, engineering, and technical staff, actively encourages its customers to purchase the infringing Accused Flash Memory Modules and/or Accused DRAM Modules and incorporate them into the customers' own consumer products. Micron's staff tout the specifications and features of the Accused Flash Memory Modules and/or Accused DRAM Modules and, on information and belief, even tailor the Accused Flash Memory Modules and/or Accused DRAM Modules to customers' needs so the Accused Flash Memory Modules and/or Accused DRAM Modules can more seamlessly be incorporated into the customers' own products. Micron also provides ongoing technical support for the Accused Flash Memory Modules and Accused DRAM Modules, including firmware updates, to its customers.

72. Micron purposefully and knowingly sells and offers to sell the Accused Flash Memory Modules and Accused DRAM Modules to its subsidiaries, distributors, and/or customers knowing and expecting that the Accused Flash Memory Modules and Accused DRAM Modules, or products containing either of them, will enter the United States, where they will be imported, used, sold, and offered for sale by those distributors, customers, and/or other end-users.

73. As a result of Micron's active encouragement and intentional inducement, its customers have committed acts directly infringing the '231 Patent. Micron has known that its customers' acts constituted direct infringement of at least one claim of the '231 Patent at least since the filing of this Complaint.

74. Moreover, Micron intends to cause, and has taken affirmative steps to induce, infringement by customers and end-users by at least, *inter alia*, encouraging, promoting, instructing, and/or directing the infringing use of the Accused Flash Memory Modules and

Accused DRAM Modules.

75. As detailed above, the Micron B47R NAND Flash and other Accused Flash Memory Modules infringe at least Claim 3 of the ’231 Patent. Accordingly, by encouraging, promoting, instructing, and/or directing users to use the Micron B47R NAND Flash and other Accused Flash Memory Modules, Micron is actively inducing infringement of the ‘231 Patent in violation of 35 U.S.C. § 271(b).

76. As detailed above, the Micron DRAM DDR5 Y52K die, Micron LPDDR4 DRAM Z11M die, and Micron LPDDR5 DRAM Y42M die devices and other Accused DRAM Modules infringe at least Claim 6 of the ’231 Patent. Accordingly, by encouraging, instructing, and/or directing users to use the Micron DRAM DDR5 Y52K die, Micron LPDDR4 DRAM Z11M die, and Micron LPDDR5 DRAM Y42M die devices and other Accused DRAM Modules, Micron is actively inducing infringement of the ‘231 Patent in violation of 35 U.S.C. § 271(b).

77. Micron likewise is liable as a contributory infringer of the ’231 Patent under 35 U.S.C. § 271(c). Micron has offered to sell and/or sold within the United States the Micron B47R NAND Flash, and other Accused Flash Memory Modules, and the Micron DRAM DDR5 Y52K die, Micron LPDDR4 DRAM Z11M die, and Micron LPDDR5 DRAM Y42M die devices, and other Accused DRAM Modules, that practice the ’231 Patent. The Accused Flash Memory Modules comprise internal voltage generating circuits, each of which constitutes a material part of the ’231 Patent’s invention that can be incorporated into storage devices. Micron has known such Accused Flash Memory Modules and Accused DRAM Modules to be especially adapted for practicing, and thus infringing, the ’231 Patent, where the Accused Flash Memory Modules and Accused DRAM Modules are not staple articles nor a commodity of commerce suitable for substantial non-infringing use.

78. Micron has been aware of the ’231 Patent since the filing of this complaint.

79. Micron’s direct, induced, contributory, and willful infringement of the ’231 Patent has caused, and will continue to cause, substantial damage to AMT. Therefore, AMT is entitled to an award of monetary damages adequate to compensate for Micron’s past, present, and future infringement, but not less than reasonable royalty, together with pre-and post-judgment interest, attorneys’ fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

COUNT THREE
INFRINGEMENT OF U.S. PATENT NO. 8,519,778

80. AMT repeats and incorporates by reference each preceding paragraph as if fully set forth herein and further states:

81. Micron has directly infringed and continues to directly infringe the ’778 Patent under 35 U.S.C. § 271(a), either literally or through the doctrine of equivalents, by making, using, selling, offering to sell, and/or importing in or into the United States Accused DRAM Modules that practice the ’778 Patent as described below, including at least Claim 1. By way of example, such Accused DRAM Modules include the Micron DDR5 Y52K DRAM devices manufactured, used, sold, offered for sale, and/or imported by Micron.

82. For example, Claim 1 is illustrative of the claims of the ’778 Patent. It recites “[a] semiconductor integrated circuit comprising:

> a first transistor and a second transistor which are connected in a series between a first voltage and a second voltage which is lower than the first voltage;
>
> a first inverter configured to control the first transistor;
>
> a second inverter configured to control the second transistor; and
>
> a current source, wherein
>
> the current source is connected in series with at least one of the first inverter or the second inverter, and

a current amount of the current source is independent of the first voltage."

83. The exemplar Micron DDR5 Y52K DRAM devices manufactured by Micron meet every element of this claim.[16]

84. The Micron DDR5 Y52K DRAM device contains a semiconductor integrated circuit comprising a first transistor and a second transistor which are connected in a series between the first voltage and a second voltage, which is lower than the first voltage.

85. In the Micron DDR5 Y52K DRAM, a semiconductor integrated circuit also includes a first inverter configured to control the first transistor, and a second inverter configured to control the second transistor.

86. Furthermore, in the Micron DDR5 Y52K DRAM, the semiconductor integrated circuit includes a current source connected in a series with at least one of the first inverter or the second inverter and with a current amount of the current source being independent of the first voltage.

87. Because the Micron DDR5 Y52K DRAM devices each contain at least one semiconductor memory device capable of erasing and writing memory contents in a memory cell using an electric signal and matching the elements of Claim 1, the Micron DDR5 Y52K DRAMs each practice at least Claim 1 of the '778 Patent.

88. Because the Micron DDR5 Y52K DRAM devices each practice at least Claim 1 of the '778 Patent, all Accused DRAM Modules similarly infringe. For example, on information and belief, Micron uses similar design, layout, and structural features in all DRAM products that contain at least one semiconductor memory device capable of erasing and writing memory contents in a memory cell using an electric signal that matches the elements of Claim 1 of the '778 Patent,

[16] This description of infringement is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which the Micron DDR5 Y52K DRAM devices infringe.

such that all Accused DRAM Modules infringe at least Claim 1 of the ’778 Patent in the same manner as the Micron DDR5 Y52K DRAM devices.

89. In addition to directly infringing the ’778 Patent by making, using, selling, offering to sell, and/or importing Accused DRAM Modules into the United States, Micron likewise has induced infringement of the ’778 Patent under 35 U.S.C. § 271(b). Micron has actively encouraged its customers to directly infringe the ’778 Patent by using, selling, offering for sale, and/or importing electronic devices and products containing the Accused DRAM Modules. Micron, through its sales, engineering, and technical staff, actively encourages its customers to purchase the infringing Accused DRAM Modules and incorporate them into the customers’ own consumer products. Micron’s staff tout the specifications and features of the Accused DRAM Modules and, on information and belief, even tailor the Accused DRAM Modules to customers’ needs so the Accused DRAM Modules can more seamlessly be incorporated into the customers’ own products. Micron also provides ongoing technical support for the Accused DRAM Modules, including firmware updates, to its customers.

90. Micron purposefully and knowingly sells and offers to sell the Accused DRAM Modules to its subsidiaries, distributors, and/or customers knowing and expecting that the Accused DRAM Modules or products containing them will enter the United States, where they will be imported, used, sold, and offered for sale by those distributors, customers, and/or other end-users.

91. As a result of Micron’s active encouragement and intentional inducement, its customers have committed acts directly infringing the ’778 Patent. Micron has known that its customers’ acts constituted direct infringement of at least one claim of the ’778 Patent at least since the filing of this Complaint.

92. Moreover, Micron intends to cause, and has taken affirmative steps to induce,

infringement by customers and end-users by at least, *inter alia*, encouraging, promoting, instructing, and/or directing the infringing use of the Accused DRAM Modules.

93. As detailed above, the Micron DDR5 Y52K DRAM devices and other Accused DRAM Modules infringe at least Claim 1 of the ’778 Patent. Accordingly, by encouraging, promoting, instructing, and/or directing users to use the Micron DDR5 Y52K DRAM devices, and/or other Accused DRAM Modules, Micron is actively inducing infringement of the ‘778 Patent in violation of 35 U.S.C. § 271(b).

94. Micron likewise is liable as a contributory infringer of the ’778 Patent under 35 U.S.C. § 271(c). Micron has offered to sell and/or sold within the United States the Micron DDR5 DRAM devices and other Accused DRAM Modules that practice the ’778 Patent. The Accused DRAM Modules comprise semiconductor memory devices capable of erasing and writing memory contents in a memory cell using an electric signal, each of which constitutes a material part of the ’888 Patent’s invention that can be incorporated into storage devices. Micron has known such Accused DRAM Modules to be especially adapted for practicing, and thus infringing, the ’778 Patent, where the Accused DRAM Modules are not staple articles nor a commodity of commerce suitable for substantial non-infringing use.

95. Micron has been aware of the ’778 Patent since the filing of this complaint.

96. Micron’s direct, induced, contributory, and willful infringement of the ’778 Patent has caused, and will continue to cause, substantial damage to AMT. Therefore, AMT is entitled to an award of monetary damages adequate to compensate for Micron’s past, present, and future infringement, but not less than reasonable royalty, together with pre-and post-judgment interest, attorneys’ fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

COUNT FOUR
INFRINGEMENT OF U.S. PATENT NO. 8,593,888

97. AMT repeats and incorporates by reference each preceding paragraph as if fully set forth herein and further states:

98. Micron has directly infringed and continues to directly infringe the ’888 Patent under 35 U.S.C. § 271(a), either literally or through the doctrine of equivalents, by making, using, selling, offering to sell, and/or importing in or into the United States Accused DRAM Modules that practice the ’888 Patent as described below, including at least Claim 1. By way of example, such Accused DRAM Modules include the Micron DDR5 DRAM Y52K devices manufactured, used, sold, offered for sale, and/or imported by Micron.

99. For example, Claim 1 is illustrative of the claims of the ’888 Patent. It recites “[a] semiconductor memory device capable of erasing and writing memory contents in a memory cell using an electric signal, comprising:

> the memory cell, one regulator, first and second switches, and a voltage applying transistor for applying a voltage to the memory cell,
>
> wherein
>
> an output of the regulator is coupled to inputs of the first and second switches,
>
> an output of the first switch is coupled to a gate of the voltage applying transistor,
>
> a voltage is applied from a drain terminal of the voltage applying transistor to a drain terminal of the memory cell, and
>
> an output of the second switch is coupled to a gate of the memory cell for application of a voltage.

100. The exemplar Micron DDR5 DRAM Y52K devices manufactured by Micron meet every element of this claim.[17]

[17] This description of infringement is illustrative and not intended to be an exhaustive or limiting explanation of every manner in which the Micron DDR5 DRAM devices infringe.

101. The Micron DDR5 DRAM Y52K devices contain a semiconductor memory device capable of erasing and writing memory contents in a memory cell using an electric signal of an infringing structure.

102. In each product, this semiconductor memory device comprises a memory cell, one regulator, first and second switches, and a voltage applying transistor for applying a voltage to the memory cell.

103. In each product, within this semiconductor memory device, an output of the regulator is coupled to inputs of the first and second switches.

104. In each product, within this semiconductor memory device, an output of the first switch is coupled to a gate of the voltage applying transistor.

105. In each product, within this semiconductor memory device, a voltage is applied from a drain terminal of the voltage applying transistor to a drain terminal of the memory cell.

106. In each product, within this semiconductor memory device, an output of the second switch is coupled to a gate of the memory cell for application of a voltage.

107. Because the Micron DDR5 DRAM Y52K devices each contain at least one semiconductor memory device capable of erasing and writing memory contents in a memory cell using an electric signal and matching the elements of Claim 1, the Micron DDR5 DRAM Y52K devices each practice at least Claim 1 of the ’888 Patent.

108. Because the Micron DDR5 DRAM Y52K devices each practice at least Claim 1 of the ’888 Patent, all Accused DRAM Modules similarly infringe. For example, on information and belief, Micron uses similar design, layout, and structural features in all DRAM products that contain at least one semiconductor memory device capable of erasing and writing memory contents in a memory cell using an electric signal that matches the elements of Claim 1 of the ’888 Patent,

such that all Accused DRAM Modules infringe at least Claim 1 of the ’888 Patent in the same manner as the Micron DDR5 DRAM Y52K devices.

109. In addition to directly infringing the ’888 Patent by making, using, selling, offering to sell, and/or importing Accused DRAM Modules into the United States, Micron likewise has induced infringement of the ’888 Patent under 35 U.S.C. § 271(b). Micron has actively encouraged its customers to directly infringe the ’888 Patent by using, selling, offering for sale, and/or importing electronic devices and products containing the Accused DRAM Modules. Micron, through its sales, engineering, and technical staff, actively encourages its customers to purchase the infringing Accused DRAM Modules and incorporate them into the customers’ own consumer products. Micron’s staff tout the specifications and features of the Accused DRAM Modules and, on information and belief, even tailor the Accused DRAM Modules to customers’ needs so the Accused DRAM Modules can more seamlessly be incorporated into the customers’ own products. Micron also provides ongoing technical support for the Accused DRAM Modules, including firmware updates, to its customers.

110. Micron purposefully and knowingly sells and offers to sell the Accused DRAM Modules to its subsidiaries, distributors, and/or customers knowing and expecting that the Accused DRAM Modules or products containing them will enter the United States, where they will be imported, used, sold, and offered for sale by those distributors, customers, and/or other end-users.

111. As a result of Micron’s active encouragement and intentional inducement, its customers have committed acts directly infringing the ’888 Patent. Micron has known that its customers’ acts constituted direct infringement of at least one claim of the ’888 Patent at least since the filing of this Complaint.

112. Moreover, Micron intends to cause, and has taken affirmative steps to induce,

infringement by customers and end-users by at least, *inter alia*, encouraging, promoting, instructing, and/or directing the infringing use of the Accused DRAM Modules.

113. As detailed above, the Micron DDR5 DRAM Y52K devices and other Accused DRAM Modules infringe at least Claim 1 of the ’888 Patent. Accordingly, by encouraging, promoting, instructing, and/or directing users to use the Micron DDR5 DRAM Y52K devices, and/or other Accused DRAM Modules, Micron is actively inducing infringement of the ‘888 Patent in violation of 35 U.S.C. § 271(b).

114. Micron likewise is liable as a contributory infringer of the ’888 Patent under 35 U.S.C. § 271(c). Micron has offered to sell and/or sold within the United States the Micron DDR5 DRAM devices and other Accused DRAM Modules that practice the ’888 Patent. The Accused DRAM Modules comprise semiconductor memory devices capable of erasing and writing memory contents in a memory cell using an electric signal, each of which constitutes a material part of the ’888 Patent’s invention that can be incorporated into storage devices. Micron has known such Accused DRAM Modules to be especially adapted for practicing, and thus infringing, the ’888 Patent, where the Accused DRAM Modules are not staple articles nor a commodity of commerce suitable for substantial non-infringing use.

115. Micron has been aware of the ’888 Patent since the filing of this complaint.

116. Micron’s direct, induced, contributory, and willful infringement of the ’888 Patent has caused, and will continue to cause, substantial damage to AMT. Therefore, AMT is entitled to an award of monetary damages adequate to compensate for Micron’s past, present, and future infringement, but not less than reasonable royalty, together with pre-and post-judgment interest, attorneys’ fees, and costs as fixed by the Court under 35 U.S.C. §§ 284 and 285.

DEMAND FOR JURY TRIAL

117. Plaintiff hereby demands a jury trial for all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff AMT requests entry of judgment in its favor and against Defendant Micron as follows:

A. Declaring that Micron has directly infringed, either literally and/or under the doctrine of equivalents, and continues to directly infringe, United States Patent Nos. 7,920,018, 7,969,231, 8,519,778, and 8,593,888;

B. Declaring that Micron has induced infringement, and continues to induce infringement, of United States Patent Nos. 7,920,018, 7,969,231, 8,519,778, and 8,593,888;

C. Declaring that Micron has contributorily infringed, and continues to contributorily infringe, United States Patent Nos. 7,920,018, 7,969,231, 8,519,778, and 8,593,888;

D. Awarding lost profits and/or reasonable royalty damages, including treble damages for willful infringement, to AMT in an amount no less than a reasonable royalty for Micron's infringement of the Asserted Patents, together with prejudgment and post-judgment interest and costs as permitted under 35 U.S.C. § 284;

E. Awarding attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law;

F. Ordering Micron to pay supplemental damages to AMT, including any ongoing royalties and interest, with an accounting, as needed;

G. Enjoining Micron from practicing the Asserted Patents; and

H. Awarding such other costs and further relief as the Court may deem just and proper.

Dated: June 30, 2025

Respectfully submitted,

/s/ Justin A. Nelson
Justin A. Nelson – Lead Counsel
Texas State Bar No. 24034766

SUSMAN GODFREY L.L.P.
1000 Louisiana Street, Suite 5100
Houston, Texas 77002
Telephone: (713) 651-9366
Facsimile: (713) 654-6666
jnelson@susmangodfrey.com

Kalpana Srinivasan
California State Bar No. 237460
SUSMAN GODFREY L.L.P.
1900 Avenue of the Stars, Suite 1400
Los Angeles, CA 90067
Telephone: (310) 789-3100
Facsimile: (310) 789-3150
ksrinivasan@susmangodfrey.com

Ian Gore
Washington State Bar No. 54519
Kemper Diehl
Washington State Bar No. 53212
Bianca Rey
Washington State Bar No. 62422
SUSMAN GODFREY L.L.P.
401 Union Street, Suite 3000
Seattle, Washington 98101
Telephone: (206) 516-3880
Facsimile: (206) 516-3883
igore@susmangodfrey.com
kdiehl@susmangodfrey.com
brey@susmangodfrey.com

Attorneys for Plaintiff AMT