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6 7	Attorney for Plaintiff LIMESTONE MEMORY SYSTEMS LLC	
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10	UNITED STATES DISTRICT COURT	
11	CENTRAL DISTRICT OF CALIFORNIA	
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13	LIMESTONE MEMORY SYSTEMS LLC, a California Limited Liability Company,	Case No.:
14		COMPLAINT FOR PATENT INFRINGEMENT
15	Plaintiff,	DEMAND FOR JURY TRIAL
16	v.	
17 18	KINGSTON TECHNOLOGY Co., Inc., a Delaware Corporation,	
19	Defendant.	
20	Defendant.	
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	LIMESTONE MEMORY SYSTEMS LLC V. KINGSTON TECHNOLOGY CO., INC.	

COMPLAINT FOR PATENT INFRINGEMENT

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Plaintiff, Limestone Memory Systems LLC ("LMS"), complains against Defendant 1 Kingston Technology Co., Inc. for patent infringement pursuant to this Court's subject matter jurisdiction under 28 U.S.C. §§1331 and 1338(a), as follows:

THE PARTIES

- 1. Plaintiff LMS is a corporation organized and existing under the laws of the State of California with its principle place of business at 520 Newport Center Drive, 12th Floor, Newport Beach, California. LMS is in the business of licensing patented technology. LMS is the assignee of U.S. Patent Nos. 5,805,504 ("the '504 patent"), 5,894,441("the '441 patent"), 5,943,260 ("the '260 patent"), 6,233,181 ("the '181 patent"), and 6,697,296 ("the '296 patent").
- Kingston Technology Co., Inc. ("Kingston") is a corporation incorporated 2. under the laws of Delaware with its principal place of business at 17600 Newhope Street, Fountain Valley, CA. Kingston conducts business in and is doing business in California and in this District and elsewhere in the United States, including, without limitation, using, promoting, offering to sell, importing and/or selling devices that incorporate memory devices that embody the patented technology, and enabling end-user purchasers to use such devices in this District. Kingston is subject to the subpoena power of this Court within the State of California.

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JURISDICTION AND VENUE

- 3. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 et seq. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- On information and belief, Defendant Kingston is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the California Long Arm Statute (CCP §410.10), due at least to their substantial business conducted in this forum, including (i) having solicited business in the State of California, transacted

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business within the State of California and attempted to derive financial benefit from residents of the State of California, including benefits directly related to the instant patent infringement causes of action set forth herein; (ii) having placed their products and services into the stream of commerce throughout the United States and having been actively engaged in transacting business in California and in this District; and (iii) either alone or in conjunction with others, having committed acts of infringement within California and in this District.

- 5. On information and belief, Defendant Kingston maintains systematic, continuous and ongoing business operations within the State of California and this District, through which it uses, promotes, offers to sell, and sells devices that incorporate memory devices that embody the patented technology. Kingston's headquarters are in Fountain View, CA, which is in this District. Further, on information and belief, Kingston provides product technical support and sells devices to retailers and/or end users in this District.
- 6. Venue lies in this District pursuant to 28 U.S.C. §§ 1391(b), 1391(c) and 1400(b) because Defendant Kingston is subject to personal jurisdiction in this District, resides in, has regularly conducted business in this District and/or has committed acts of patent infringement in this District.

FIRST CAUSE OF ACTION – INFRINGEMENT OF '504 PATENT

- 7. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs 1 to 6, as if fully set forth herein.
- 8. On September 8, 1998, U.S. Patent No. 5,805,504 ("the '504 patent"), entitled "Synchronous Semiconductor Memory Having A Burst Transfer Mode With A Plurality Of Subarrays Accessible In Parallel Via An Input Buffer," a copy of which is attached hereto as Exhibit A, was duly and legally issued to the inventor, Mamoru Fujita. The '504 patent issued from U.S. patent application Serial Number 08/758,367, filed November 29, 1996 and discloses novel memory devices with burst mode transfer

functions designed to receive and send large amounts of data quickly. The inventor assigned all right, title, and interest in the '504 patent to NEC Corporation (hereinafter "NEC"). NEC's right, title, and interest in the '504 patent was subsequently assigned to NEC Electronics Corporation, which further assigned such right, title, and interest to Renesas Electronics Corp (hereinafter "Renesas"). Renesas assigned all right, title, and interest in the '504 patent to Acacia Research Group LLC ("ARG"). The assignment to ARG was made subject only to certain prior non-exclusive license agreements and a limited non-exclusive and non-transferable limited license to Renesas. Neither the prior licensees nor Renesas possesses any right to sue for or collect past, present and future damages or to seek and obtain injunctive or any other relief for infringement of the '504 patent.

- 9. Prior to the commencement of this action, ARG assigned all right, title, and interest in the '504 patent to LMS, its wholly owned designated affiliate, including all of ARG's rights, obligations, interests and liabilities under the assignment agreement with Renesas. LMS assumed all such rights, obligations, interests and liabilities of ARG under such assignment agreement. LMS thus possesses the right to sue for or collect past, present and future damages or to seek and obtain injunctive or any other relief for infringement of the '504 patent.
- 10. Defendant Kingston, directly and/or through its subsidiaries, affiliates, agents, and/or business partners, has in the past and continues to directly infringe the '504 patent pursuant to 35 U.S.C. § 271(a) by making, having made, using, selling, offering to sell and/or importing devices incorporating memory devices that embody the invention claimed in the '504 patent, within the United States and within this District. Kingston has been and is engaged in one or more of these direct infringing activities related to its manufacture, distribution, support, and sales of digital data storage devices that incorporate DRAM chips manufactured by Micron Technology, Inc. (hereinafter "Micron") including at least DDR2, DDR3 and DDR4 chips (hereinafter "the '504

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DRAM Chips") and any other Micron chip having substantially similar data transfer architecture.

- 11. A non-exhaustive list of part numbers associated with the '504 DRAM Chips appears in a part catalog provided on Micron's website (http://www.micron.com/), which list is attached hereto as Exhibit B.
- The service of this Complaint will provide Kingston with actual notice of the 12. '504 patent and of Plaintiff's infringement allegations herein.
- Kingston's direct infringement of the '504 patent has injured LMS. LMS is entitled to recover damages adequate to compensate for such infringement pursuant to 35 U.S.C. § 284.
- Unless it ceases its infringing activities, Kingston will continue to injure 14. LMS by directly infringing the '504 patent.
- 15. On information and belief, Kingston will continue its infringement notwithstanding its actual knowledge of the '504 patent and while lacking an objectively reasonable good faith basis to believe that its activities do not infringe any valid claim of the '504 patent. As such, Kingston's future acts of infringement will constitute continuing willful infringement of the '504 patent.

SECOND CAUSE OF ACTION – INFRINGEMENT OF '441 PATENT

- Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs 16. 1 to 15, as if fully set forth herein.
- 17. On April 13, 1999, U.S. Patent No. 5,894,441 ("the '441 patent"), entitled "Semiconductor Memory Device With Redundancy Circuit," a copy of which is attached hereto as Exhibit C, was duly and legally issued to the inventor, Shigeyuki Nakazawa. The '441 patent issued from U.S. patent application Serial Number 09/050,354 filed March 31, 1998 and discloses novel memory devices with structures designed to identify a defective region on the memory device such that a redundant region may be used in lieu of the defective region. The inventor assigned all right, title, and interest in the '441

patent to NEC Corporation (hereinafter "NEC"). NEC's right, title, and interest in the '441 patent was subsequently assigned to NEC Electronics Corporation, which further assigned such right, title, and interest to Renesas Electronics Corp. (hereinafter "Renesas"). Renesas assigned all right, title, and interest in the '441 patent to Acacia Research Group LLC ("ARG"). The assignment to ARG was made subject only to certain prior non-exclusive license agreements and a limited non-exclusive and non-transferable limited license to Renesas. Neither the prior licensees nor Renesas possesses any right to sue for or collect past, present and future damages or to seek and obtain injunctive or any other relief for infringement of the '441 patent.

- 18. Prior to the commencement of this action, ARG assigned all right, title, and interest in the '441 patent to LMS, its wholly owned designated affiliate, including all of ARG's rights, obligations, interests and liabilities under the assignment agreement with Renesas. LMS assumed all such rights, obligations, interests and liabilities of ARG under such assignment agreement. LMS thus possesses the right to sue for or collect past, present and future damages or to seek and obtain injunctive or any other relief for infringement of the '441 patent.
- 19. Defendant Kingston, directly and/or through its subsidiaries, affiliates, agents, and/or business partners, has in the past and continues to directly infringe the '441 patent pursuant to 35 U.S.C. § 271(a) by making, having made, using, selling, offering to sell and/or importing devices incorporating memory devices that embody the invention claimed in the '441 patent, within the United States and within this District. Kingston has been and is engaged in one or more of these direct infringing activities related to its manufacture, distribution, support, and sales of digital data storage devices that incorporate DRAM chips manufactured by Micron including at least DDR2, DDR3, DDR4, LPSDR, LPDDR, LPDDR2, LPDDR3, LPDDR4 GDDR5, and RLDRAM chips (hereinafter "the '441 DRAM Chips") and any other Micron chip having substantially similar structures for managing defective regions of the chip.

- 20. A non-exhaustive list of part numbers associated with the '441 DRAM Chips appears in a part catalog provided on Micron's website (http://www.micron.com/), which list is attached hereto as Exhibit D.
- 21. The service of this Complaint will provide Kingston with actual notice of the '441 patent and of Plaintiff's infringement allegations herein.
- 22. Kingston's direct infringement of the '441 patent has injured LMS. LMS is entitled to recover damages adequate to compensate for such infringement pursuant to 35 U.S.C. § 284.
- 23. Unless it ceases its infringing activities, Kingston will continue to injure LMS by directly infringing the '441 patent.
- 24. Upon information and belief, Kingston will continue its infringement notwithstanding its actual knowledge of the '441 patent and while lacking an objectively reasonable good faith basis to believe that its activities do not infringe any valid claim of the '441 patent. As such, Kingston's future acts of infringement will constitute continuing willful infringement of the '441 patent.

THIRD CAUSE OF ACTION - INFRINGEMENT OF '260 PATENT

- 25. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs 1 to 24, as if fully set forth herein.
- 26. On August 24, 1999, U.S. Patent No. 5,943,260 ("the '260 patent"), entitled "Method For High-Speed Programming Of A Nonvolatile Semiconductor Memory Device," a copy of which is attached hereto as Exhibit E, was duly and legally issued to the inventor, Tsuyoshi Hirakawa. The '260 patent issued from U.S. patent application Serial Number 09/027,215 filed February 20, 1998 and discloses novel methods for programming multi-valued memory cells in parallel within an array of such memory cells, by selectively increasing the voltage applied to groups of the cells. The inventor assigned all right, title, and interest in the '260 patent to NEC Corporation (hereinafter "NEC"). NEC's right, title, and interest in the '260 patent was subsequently assigned to NEC

Electronics Corporation, which further assigned such right, title, and interest to Renesas Electronics Corp. (hereinafter "Renesas"). Renesas assigned all right, title, and interest in the '260 patent to Acacia Research Group LLC ("ARG"). The assignment to ARG was made subject only to certain prior non-exclusive license agreements and a limited non-exclusive and non-transferable limited license to Renesas. Neither the prior licensees nor Renesas possesses any right to sue for or collect past, present and future damages or to seek and obtain injunctive or any other relief for infringement of the '260 patent.

- 27. Prior to the commencement of this action, ARG assigned all right, title, and interest in the '260 patent to LMS, its wholly owned designated affiliate, including all of ARG's rights, obligations, interests and liabilities under the assignment agreement with Renesas. LMS assumed all such rights, obligations, interests and liabilities of ARG under such assignment agreement. LMS thus possesses the right to sue for or collect past, present and future damages or to seek and obtain injunctive or any other relief for infringement of the '260 patent.
- 28. Defendant Kingston, directly and/or through its subsidiaries, affiliates, agents, and/or business partners, has in the past and continues to directly infringe the '260 patent pursuant to 35 U.S.C. § 271(a) by practicing the method claimed in the '260 patent in connection with memory devices incorporated within digital data storage devices made, used, sold, offered for sale and/or imported within the United States and within this District; and/or pursuant to 35 U.S.C. § 271(g) at least by importing into the United States or offering to sell, selling, or using within the United States digital data storage devices incorporating memory devices which were made by method claimed in the '260 patent during the term of the '260 patent.
- 29. Kingston has been and is engaged in one or more of these direct infringing activities related to its manufacture, distribution, support, and sales of devices that incorporate Micron Flash Chips. These infringing devices include, for example and without limitation, digital data storage devices that incorporate one or more of the that

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incorporate multi-level cell ("MLC") and triple-level cell ("TLC") flash memory chips manufactured by Micron (hereinafter the "Micron Flash Chips") and any other Micron chip using substantially similar techniques for programming arrays of multi-valued memory cells.

- 30. A non-exhaustive list of part numbers associated with the Micron Flash Chips appears in a part catalog provided on Micron's website (http://www.micron.com/), which list is attached hereto as Exhibit F.
- 31. Defendant Kingston's infringing devices include, for example and without limitation, its SSDNow V300 Solid State Drive, which is a solid state drive that incorporates one or more of the Micron Flash Chips.
- 32. The service of this Complaint will provide Kingston with actual notice of the '260 patent and of Plaintiff's infringement allegations herein.
- 33. Kingston's direct infringement of the '260 patent has injured LMS. LMS is entitled to recover damages adequate to compensate for such infringement pursuant to 35 U.S.C. § 284.
- Unless it ceases its infringing activities, Defendant Kingston will continue to 34. injure LMS by directly infringing the '260 patent.
- 35. Upon information and belief, Defendant Kingston will continue its infringement notwithstanding its actual knowledge of the '260 patent and while lacking an objectively reasonable good faith basis to believe that its activities do not infringe any valid claim of the '260 patent. As such, Kingston's future acts of infringement will constitute continuing willful infringement of the '260 patent.

FOURTH CAUSE OF ACTION – INFRINGEMENT OF '181 PATENT

- 36. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs 1 to 35, as if fully set forth herein.
- On May 15, 2001, U.S. Patent No. 6,233,181 ("the '181 patent"), entitled 37. "Semiconductor Memory Device With Improved Flexible Redundancy Scheme" a copy

of which is attached hereto as Exhibit G, was duly and legally issued to the inventor, Hideto Hidaka. The '181 patent issued from U.S. patent application Serial Number 09/251,352 filed February 17, 1999 and discloses novel memory devices with redundant rows of memory cells, available for use among a particular group of memory sub-arrays. The inventor assigned all right, title, and interest in the '181 patent to Mitsubishi Denki Kabushiki Kaisha (hereinafter "Mitsubishi"). Mitsubishi's right, title, and interest in the '181 patent was subsequently assigned to Renesas Electronics Corp. (hereinafter "Renesas"). Renesas assigned all right, title, and interest in the '181 patent to Acacia Research Group LLC ("ARG"). The assignment to ARG was made subject only to certain prior non-exclusive license agreements and a limited non-exclusive and non-transferable limited license to Renesas. Neither the prior licensees nor Renesas possesses any right to sue for or collect past, present and future damages or to seek and obtain injunctive or any other relief for infringement of the '181 patent.

- 38. Prior to the commencement of this action, ARG assigned all right, title, and interest in the '181 patent to LMS, its wholly owned designated affiliate, including all of ARG's rights, obligations, interests and liabilities under the assignment agreement with Renesas. LMS assumed all such rights, obligations, interests and liabilities of ARG under such assignment agreement. LMS thus possesses the right to sue for or collect past, present and future damages or to seek and obtain injunctive or any other relief for infringement of the '181 patent.
- 39. Defendant Kingston, directly and/or through its subsidiaries, affiliates, agents, and/or business partners, has in the past and continues to directly infringe the '181 patent pursuant to 35 U.S.C. § 271(a) by making, having made, using, selling, offering to sell and/or importing devices incorporating memory devices that embody the invention claimed in the '181 patent, within the United States and within this District. Kingston has been and is engaged in one or more of these direct infringing activities related to its manufacture, distribution, support, and sales of digital data storage devices that

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incorporate DRAM chips manufactured by Micron, including at least DDR2, DDR3, DDR4, LPSDR, LPDDR2, LPDDR3, LPDDR4 GDDR5, and RLDRAM chips (hereinafter "the '181 DRAM Chips") and any other Micron chip having substantially similar structures providing redundant memory cells.

- 40. A non-exhaustive list of part numbers associated with the '181 DRAM Chips appears in a part catalog provided on Micron's website (http://www.micron.com/), which list is attached hereto as Exhibit H.
- 41. The service of this Complaint will provide Kingston with actual notice of the '181 patent and of Plaintiff's infringement allegations herein.
- 42. Kingston's direct infringement of the '181 patent has injured LMS. LMS is entitled to recover damages adequate to compensate for such infringement pursuant to 35 U.S.C. § 284.
- 43. Unless it ceases its infringing activities, Defendant Kingston will continue to injure LMS by directly infringing the '181 patent.
- 44. Upon information and belief, Defendant Kingston will continue its infringement notwithstanding its actual knowledge of the '181 patent and while lacking an objectively reasonable good faith basis to believe that its activities do not infringe any valid claim of the '181 patent. As such, Kingston's future acts of infringement will constitute continuing willful infringement of the '181 patent.

FIFTH CAUSE OF ACTION – INFRINGEMENT OF '296 PATENT

- Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs 45. 1 to 44, as if fully set forth herein.
- On May 15, 2004, U.S. Patent No. 6,697,296 ("the '296 patent"), entitled 46. "Clock Synchronous Semiconductor Memory Device" a copy of which is attached hereto as Exhibit I, was duly and legally issued to the inventors, Junko Matsumoto, et al. The '296 patent issued from U.S. patent application Serial Number 10/140,937 filed May 9, 2002 and discloses novel memory devices with input/output buffers that can be disabled

to reduce the power consumption of the memory device when it is in a low-power state. The inventors assigned all right, title, and interest in the '296 patent to Mitsubishi Denki Kabushiki Kaisha (hereinafter "Mitsubishi"). Mitsubishi's right, title, and interest in the '296 patent was subsequently assigned to Renesas Technology Group, which further assigned such right, title, and interest to Renesas Electronics Corp. (hereinafter "Renesas"). Renesas assigned all right, title, and interest in the '296 patent to Acacia Research Group LLC ("ARG"). The assignment to ARG was made subject only to certain prior non-exclusive license agreements and a limited non-exclusive and non-transferable limited license to Renesas. Neither the prior licensees nor Renesas possesses any right to sue for or collect past, present and future damages or to seek and obtain injunctive or any other relief for infringement of the '296 patent.

- 47. Prior to the commencement of this action, ARG assigned all right, title, and interest in the '296 patent to LMS, its wholly owned designated affiliate, including all of ARG's rights, obligations, interests and liabilities under the assignment agreement with Renesas. LMS assumed all such rights, obligations, interests and liabilities of ARG under such assignment agreement. LMS thus possesses the right to sue for or collect past, present and future damages or to seek and obtain injunctive or any other relief for infringement of the '296 patent.
- 48. Defendant Kingston, directly and/or through its subsidiaries, affiliates, agents, and/or business partners, has in the past and continues to directly infringe the '296 patent pursuant to 35 U.S.C. § 271(a) by making, having made, using, selling, offering to sell and/or importing devices incorporating memory devices that embody the invention claimed in the '296 patent, within the United States and within this District. Kingston has been and is engaged in one or more of these direct infringing activities related to its manufacture, distribution, support, and sales of digital data storage devices that incorporate DRAM chips manufactured by Micron, including at least DDR3, DDR4, LPDDR3, and LRPDDR4 chips (hereinafter "the '296 DRAM Chips") and any other

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Micron chip having substantially similar capability to disable input/output buffers in a low power state.

- 49. A non-exhaustive list of part numbers associated with the '296 DRAM Chips appears in a part catalog provided on Micron's website (http://www.micron.com/), which list is attached hereto as Exhibit J.
- 50. The service of this Complaint will provide Kingston with actual notice of the '296 patent and of Plaintiff's infringement allegations herein.
- 51. Kingston's direct infringement of the '296 patent has injured LMS. LMS is entitled to recover damages adequate to compensate for such infringement pursuant to 35 U.S.C. § 284.
- 52. Unless it ceases its infringing activities, Defendant Kingston will continue to injure LMS by directly infringing the '296 patent.
- 53. Upon information and belief, Defendant Kingston will continue its infringement notwithstanding its actual knowledge of the '296 patent and while lacking an objectively reasonable good faith basis to believe that its activities do not infringe any valid claim of the '296 patent. As such, Kingston's future acts of infringement will constitute continuing willful infringement of the '296 patent.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs prays for:

- 1. Judgment that the '504, '441, '260, '181, and '296 patents are each valid and enforceable;
- 2. Judgment that the '504, '441, '260, '181, and '296 patents are infringed by Defendant and Kingston;
- 3. Judgment that Defendant Kingston's future acts of patent infringement relating to the '504, '441, '260, '181, and the '296 patents are willful;

JURY DEMAND LMS demands trial by jury of all issues triable of right by a jury. Respectfully submitted, Date: April 23, 2015 /s/ Jon A. Birmingham Jon A. Birmingham (CA SBN 271034) FITCH, EVEN, TABIN & FLANNERY LLP 21700 Oxnard Street, Suite 1740 Los Angeles, California 91367 Telephone: (818) 715-7025 Facsimile: (818) 715-7033 Email: jbirmi@fitcheven.com ATTORNEY FOR PLAINTIFF LIMESTONE MEMORY SYSTEMS LLC V. KINGSTON TECHNOLOGY CO., INC.

COMPLAINT FOR PATENT INFRINGEMENT