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7 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,

14
15 Plaintiff,

16 v.

17 DELL INC., a Delaware Corporation,

18
19 Defendant.

Case No.:

COMPLAINT FOR PATENT INFRINGEMENT
DEMAND FOR JURY TRIAL

1 Plaintiff, Limestone Memory Systems LLC (“LMS”), complains against Defendant
2 Dell Inc. for patent infringement pursuant to this Court’s subject matter jurisdiction under
3 28 U.S.C. §§1331 and 1338(a), as follows:

4 **THE PARTIES**

5 1. Plaintiff LMS is a corporation organized and existing under the laws of the
6 State of California with its principle place of business at 520 Newport Center Drive, 12th
7 Floor, Newport Beach, California. LMS is in the business of licensing patented
8 technology. LMS is the assignee of U.S. Patent Nos. 5,805,504 (“the ‘504 patent”),
9 5,894,441 (“the ‘441 patent”), 5,943,260 (“the ‘260 patent”), 6,233,181 (“the ‘181
10 patent”), and 6,697,296 (“the ‘296 patent”).

11 2. Defendant Dell Inc. (“Dell”) is a corporation incorporated under the laws of
12 Delaware with its principal place of business at 1 Dell Way, Round Rock, Texas. Dell
13 conducts business in and is doing business in California and in this District and elsewhere
14 in the United States, including, without limitation, using, promoting, offering to sell,
15 importing and/or selling devices that incorporate memory devices that embody the
16 patented technology, and enabling end-user purchasers to use such devices in this District.
17 Dell is subject to the subpoena power of this Court within the State of California.

18 **JURISDICTION AND VENUE**

19 3. This is an action for patent infringement arising under the Patent Laws of the
20 United States, 35 U.S.C. § 1 *et seq.* This Court has subject matter jurisdiction over this
21 action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

22 4. On information and belief, Defendant Dell is subject to this Court’s specific
23 and general personal jurisdiction pursuant to due process and/or the California Long Arm
24 Statute (CCP §410.10), due at least to their substantial business conducted in this forum,
25 including (i) having solicited business in the State of California, transacted business
26 within the State of California and attempted to derive financial benefit from residents of
27 the State of California, including benefits directly related to the instant patent
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1 infringement causes of action set forth herein; (ii) having placed its products and services
2 into the stream of commerce throughout the United States and having been actively
3 engaged in transacting business in California and in this District; and (iii) either alone or
4 in conjunction with others, having committed acts of infringement within California and
5 in this District.

6 5. On information and belief, Defendant Dell maintains systematic, continuous
7 and ongoing business operations within the State of California and this District, through
8 which it uses, promotes, offers to sell, and sells devices that incorporate memory devices
9 that embody the patented technology. Dell's facilities include offices in Aliso Viejo,
10 California, in this District. Further, on information and belief, Dell provides product
11 technical support and sells devices to retailers and/or end users in this District.

12 6. Venue lies in this District pursuant to 28 U.S.C. §§ 1391(b), 1391(c) and
13 1400(b) because Defendant Dell is subject to personal jurisdiction in this District, resides
14 in, has regularly conducted business in this District and/or has committed acts of patent
15 infringement in this District.

16 **FIRST CAUSE OF ACTION – INFRINGEMENT OF ‘504 PATENT**

17 7. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs
18 1 to 6, as if fully set forth herein.

19 8. On September 8, 1998, U.S. Patent No. 5,805,504 (“the ‘504 patent”),
20 entitled “Synchronous Semiconductor Memory Having A Burst Transfer Mode With A
21 Plurality Of Subarrays Accessible In Parallel Via An Input Buffer,” a copy of which is
22 attached hereto as Exhibit A, was duly and legally issued to the inventor, Mamoru Fujita.
23 The ‘504 patent issued from U.S. patent application Serial Number 08/758,367, filed
24 November 29, 1996 and discloses novel memory devices with burst mode transfer
25 functions designed to receive and send large amounts of data quickly. The inventor
26 assigned all right, title, and interest in the ‘504 patent to NEC Corporation (hereinafter
27 “NEC”). NEC’s right, title, and interest in the ‘504 patent was subsequently assigned to
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1 NEC Electronics Corporation, which further assigned such right, title, and interest to
2 Renesas Electronics Corp (hereinafter “Renesas”). Renesas assigned all right, title, and
3 interest in the ‘504 patent to Acacia Research Group LLC (“ARG”). The assignment to
4 ARG was made subject only to certain prior non-exclusive license agreements and a
5 limited non-exclusive and non-transferable limited license to Renesas. Neither the prior
6 licensees nor Renesas possesses any right to sue for or collect past, present and future
7 damages or to seek and obtain injunctive or any other relief for infringement of the ‘504
8 patent.

9 9. Prior to the commencement of this action, ARG assigned all right, title, and
10 interest in the ‘504 patent to LMS, its wholly owned designated affiliate, including all of
11 ARG’s rights, obligations, interests and liabilities under the assignment agreement with
12 Renesas. LMS assumed all such rights, obligations, interests and liabilities of ARG under
13 such assignment agreement. LMS thus possesses the right to sue for or collect past,
14 present and future damages or to seek and obtain injunctive or any other relief for
15 infringement of the ‘504 patent.

16 10. Defendant Dell, directly and/or through its subsidiaries, affiliates, agents,
17 and/or business partners, has in the past and continues to directly infringe the ‘504 patent
18 pursuant to 35 U.S.C. § 271(a) by making, having made, using, selling, offering to sell
19 and/or importing devices incorporating memory devices that embody the invention
20 claimed in the ‘504 patent, within the United States and within this District. Dell has been
21 and is engaged in one or more of these direct infringing activities related to its
22 manufacture, distribution, support, and sales of devices such as servers, personal
23 computers and laptop computers that incorporate DRAM chips manufactured by Micron
24 Technology, Inc. (hereinafter “Micron”), including at least DDR2, DDR3 and DDR4
25 chips (hereinafter “the ‘504 DRAM Chips”) and any other Micron chip having
26 substantially similar data transfer architecture.

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1 11. A non-exhaustive list of part numbers associated with the ‘504 DRAM Chips
2 appears in a part catalog provided on Micron’s website (<http://www.micron.com/>), which
3 list is attached hereto as Exhibit B.

4 12. Defendant Dell’s infringing devices include, for example and without
5 limitation, the following computing devices incorporating one or more of the ‘504 DRAM
6 Chips:

- 7 a. XPS13 Laptop with Micron J8416E6MB-GNL-F 8 GB (8 x 1 GB)
8 DDR3L-RS 1600 MHz dual-channel RAM
- 9 b. Alienware 17 Laptop with Micron 4GB PC3L-12800 RAM
- 10 c. Precision T3610 Workstation with Micron P320h PCIe SSD drive
- 11 d. Precision T5610 Workstation with Micron P320h PCIe SSD drive
- 12 e. Precision T5810 Workstation with Micron P320h PCIe SSD drive
- 13 f. Precision T7610 Workstation with Micron P320h PCIe SSD drive
- 14 g. Precision T7810 Workstation with Micron P420m PCIe SSD drives
- 15 h. Precision Rack 7810 Workstation with Micron P420m PCIe SSD
16 drives
- 17 i. Precision Rack 7910 Workstation with Micron P420m PCIe SSD drive
- 18 j. PowerEdge T620 Blade Server with Micron P320h PCIe SSD drive
- 19 k. PowerEdge M620 Blade Server with Micron P320h PCIe SSD drive
- 20 l. PowerEdge M820 Blade Server with Micron P320h PCIe SSD drive
- 21 m. PowerEdge R620 Rack Server with Micron P320h PCIe SSD drive
- 22 n. PowerEdge R720 Rack Server with Micron P320h PCIe SSD drive
- 23 o. PowerEdge R820 Rack Server with Micron P320h PCIe SSD drive
- 24 p. Inspiron 14 7437 Laptop with Micron C400 256GB mSATA SSD

25 13. The service of this Complaint will provide Dell with actual notice of the ‘504
26 patent and of Plaintiff’s infringement allegations herein.

1 14. Dell’s direct infringement of the ‘504 patent has injured LMS. LMS is
2 entitled to recover damages adequate to compensate for such infringement pursuant to 35
3 U.S.C. § 284.

4 15. Unless it ceases its infringing activities, Dell will continue to injure LMS by
5 directly infringing the ‘504 patent.

6 16. On information and belief, Dell will continue its infringement
7 notwithstanding its actual knowledge of the ‘504 patent and while lacking an objectively
8 reasonable good faith basis to believe that its activities do not infringe any valid claim of
9 the ‘504 patent. As such, Dell’s future acts of infringement will constitute continuing
10 willful infringement of the ‘504 patent.

11 **SECOND CAUSE OF ACTION – INFRINGEMENT OF ‘441 PATENT**

12 17. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs
13 1 to 16, as if fully set forth herein.

14 18. On April 13, 1999, U.S. Patent No. 5,894,441 (“the ‘441 patent”), entitled
15 “Semiconductor Memory Device With Redundancy Circuit,” a copy of which is attached
16 hereto as Exhibit C, was duly and legally issued to the inventor, Shigeyuki Nakazawa.
17 The ‘441 patent issued from U.S. patent application Serial Number 09/050,354 filed
18 March 31, 1998 and discloses novel memory devices with structures designed to identify
19 a defective region on the memory device such that a redundant region may be used in lieu
20 of the defective region. The inventor assigned all right, title, and interest in the ‘441
21 patent to NEC Corporation (hereinafter “NEC”). NEC’s right, title, and interest in the
22 ‘441 patent was subsequently assigned to NEC Electronics Corporation, which further
23 assigned such right, title, and interest to Renesas Electronics Corp. (hereinafter
24 “Renesas”). Renesas assigned all right, title, and interest in the ‘441 patent to Acacia
25 Research Group LLC (“ARG”). The assignment to ARG was made subject only to
26 certain prior non-exclusive license agreements and a limited non-exclusive and non-
27 transferable limited license to Renesas. Neither the prior licensees nor Renesas possesses
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1 any right to sue for or collect past, present and future damages or to seek and obtain
2 injunctive or any other relief for infringement of the '441 patent.

3 19. Prior to the commencement of this action, ARG assigned all right, title, and
4 interest in the '441 patent to LMS, its wholly owned designated affiliate, including all of
5 ARG's rights, obligations, interests and liabilities under the assignment agreement with
6 Renesas. LMS assumed all such rights, obligations, interests and liabilities of ARG under
7 such assignment agreement. LMS thus possesses the right to sue for or collect past,
8 present and future damages or to seek and obtain injunctive or any other relief for
9 infringement of the '441 patent.

10 20. Defendant Dell, directly and/or through its subsidiaries, affiliates, agents,
11 and/or business partners, has in the past and continues to directly infringe the '441 patent
12 pursuant to 35 U.S.C. § 271(a) by making, having made, using, selling, offering to sell
13 and/or importing devices incorporating memory devices that embody the invention
14 claimed in the '441 patent, within the United States and within this District. Dell has been
15 and is engaged in one or more of these direct infringing activities related to its
16 manufacture, distribution, support, and sales of devices such as servers, personal
17 computers and laptop computers that incorporate DRAM chips manufactured by Micron
18 including at least DDR2, DDR3, DDR4, LPSDR, LPDDR, LPDDR2, LPDDR3, LPDDR4
19 GDDR5, and RLDRAM chips (hereinafter "the '441 DRAM Chips") and any other
20 Micron chip having substantially similar structures for managing defective regions of the
21 chip.

22 21. A non-exhaustive list of part numbers associated with the '441 DRAM Chips
23 appears in a part catalog provided on Micron's website (<http://www.micron.com/>), which
24 list is attached hereto as Exhibit D.

25 22. Defendant Dell's infringing devices include, for example and without
26 limitation, the following computing devices incorporating one or more of the '504 DRAM
27 Chips:

- a. XPS13 Laptop with Micron J8416E6MB-GNL-F 8 GB (8 x 1 GB) DDR3L-RS 1600 MHz dual-channel RAM
- b. Alienware 17 Laptop with Micron 4GB PC3L-12800 RAM
- c. Precision T3610 Workstation with Micron P320h PCIe SSD drive
- d. Precision T5610 Workstation with Micron P320h PCIe SSD drive
- e. Precision T5810 Workstation with Micron P320h PCIe SSD drive
- f. Precision T7610 Workstation with Micron P320h PCIe SSD drive
- g. Precision T7810 Workstation with Micron P420m PCIe SSD drives
- h. Precision Rack 7810 Workstation with Micron P420m PCIe SSD drives
- i. Precision Rack 7910 Workstation with Micron P420m PCIe SSD drive
- j. PowerEdge T620 Blade Server with Micron P320h PCIe SSD drive
- k. PowerEdge M620 Blade Server with Micron P320h PCIe SSD drive
- l. PowerEdge M820 Blade Server with Micron P320h PCIe SSD drive
- m. PowerEdge R620 Rack Server with Micron P320h PCIe SSD drive
- n. PowerEdge R720 Rack Server with Micron P320h PCIe SSD drive
- o. PowerEdge R820 Rack Server with Micron P320h PCIe SSD drive
- p. Inspiron 14 7437 Laptop with Micron C400 256GB mSATA SSD

23. The service of this Complaint will provide Dell with actual notice of the ‘441 patent and of Plaintiff’s infringement allegations herein.

24. Dell’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.

25. Unless it ceases its infringing activities, Dell will continue to injure LMS by directly infringing the ‘441 patent.

26. Upon information and belief, Dell will continue its infringement notwithstanding its actual knowledge of the ‘441 patent and while lacking an objectively

1 reasonable good faith basis to believe that its activities do not infringe any valid claim of
2 the '441 patent. As such, Dell's future acts of infringement will constitute continuing
3 willful infringement of the '441 patent.

4 **THIRD CAUSE OF ACTION – INFRINGEMENT OF '260 PATENT**

5 27. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs
6 1 to 26, as if fully set forth herein.

7 28. On August 24, 1999, U.S. Patent No. 5,943,260 ("the '260 patent"), entitled
8 "Method For High-Speed Programming Of A Nonvolatile Semiconductor Memory
9 Device," a copy of which is attached hereto as Exhibit E, was duly and legally issued to
10 the inventor, Tsuyoshi Hirakawa. The '260 patent issued from U.S. patent application
11 Serial Number 09/027,215 filed February 20, 1998 and discloses novel methods for
12 programming multi-valued memory cells in parallel within an array of such memory cells,
13 by selectively increasing the voltage applied to groups of the cells. The inventor assigned
14 all right, title, and interest in the '260 patent to NEC Corporation (hereinafter "NEC").
15 NEC's right, title, and interest in the '260 patent was subsequently assigned to NEC
16 Electronics Corporation, which further assigned such right, title, and interest to Renesas
17 Electronics Corp. (hereinafter "Renesas"). Renesas assigned all right, title, and interest in
18 the '260 patent to Acacia Research Group LLC ("ARG"). The assignment to ARG was
19 made subject only to certain prior non-exclusive license agreements and a limited non-
20 exclusive and non-transferable limited license to Renesas. Neither the prior licensees nor
21 Renesas possesses any right to sue for or collect past, present and future damages or to
22 seek and obtain injunctive or any other relief for infringement of the '260 patent.

23 29. Prior to the commencement of this action, ARG assigned all right, title, and
24 interest in the '260 patent to LMS, its wholly owned designated affiliate, including all of
25 ARG's rights, obligations, interests and liabilities under the assignment agreement with
26 Renesas. LMS assumed all such rights, obligations, interests and liabilities of ARG under
27 such assignment agreement. LMS thus possesses the right to sue for or collect past,
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1 present and future damages or to seek and obtain injunctive or any other relief for
2 infringement of the '260 patent.

3 30. Defendant Dell, directly and/or through its subsidiaries, affiliates, agents,
4 and/or business partners, has in the past and continues to directly infringe the '260 patent
5 pursuant to 35 U.S.C. § 271(a) by practicing the method claimed in the '260 patent in
6 connection with memory devices incorporated within computing devices made, used,
7 sold, offered for sale and/or imported within the United States and within this District;
8 and/or pursuant to 35 U.S.C. § 271(g) at least by importing into the United States or
9 offering to sell, selling, or using within the United States computing devices incorporating
10 memory devices which were made by method claimed in the '260 patent during the term
11 of the '260 patent.

12 31. Dell has been and is engaged in one or more of these direct infringing
13 activities related to its manufacture, distribution, support, and sales of devices such as
14 servers, personal computers and laptop computers that incorporate that incorporate multi-
15 level cell ("MLC") and triple-level cell ("TLC") flash memory chips manufactured by
16 Micron (hereinafter the "Micron Flash Chips") and any other Micron chip using
17 substantially similar techniques for programming arrays of multi-valued memory cells.

18 32. A non-exhaustive list of part numbers associated with the Micron Flash
19 Chips appears in a part catalog provided on Micron's website (<http://www.micron.com/>),
20 which list is attached hereto as Exhibit F.

21 33. Defendant Dell's infringing devices include, for example and without
22 limitation, the following computing devices incorporate one or more of the Micron Flash
23 Chips:

- 24 a. Precision T7810 Workstation with Micron P420m PCIe SSD drives
- 25 b. Precision Rack 7810 Workstation with Micron P420m PCIe SSD
26 drives
- 27 c. Precision Rack 7910 Workstation with Micron P420m PCIe SSD drive

1 d. Inspiron 14 7437 Laptop with Micron C400 256GB mSATA SSD

2 34. The service of this Complaint will provide Dell with actual notice of the ‘260
3 patent and of Plaintiff’s infringement allegations herein.

4 35. Dell’s direct infringement of the ‘260 patent has injured LMS. LMS is
5 entitled to recover damages adequate to compensate for such infringement pursuant to 35
6 U.S.C. § 284.

7 36. Unless it ceases its infringing activities, Defendant Dell will continue to
8 injure LMS by directly infringing the ‘260 patent.

9 37. Upon information and belief, Defendant Dell will continue its infringement
10 notwithstanding its actual knowledge of the ‘260 patent and while lacking an objectively
11 reasonable good faith basis to believe that its activities do not infringe any valid claim of
12 the ‘260 patent. As such, Dell’s future acts of infringement will constitute continuing
13 willful infringement of the ‘260 patent.

14 **FOURTH CAUSE OF ACTION – INFRINGEMENT OF ‘181 PATENT**

15 38. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs
16 1 to 37, as if fully set forth herein.

17 39. On May 15, 2001, U.S. Patent No. 6,233,181 (“the ‘181 patent”), entitled
18 “Semiconductor Memory Device With Improved Flexible Redundancy Scheme” a copy
19 of which is attached hereto as Exhibit G, was duly and legally issued to the inventor,
20 Hideto Hidaka. The ‘181 patent issued from U.S. patent application Serial Number
21 09/251,352 filed February 17, 1999 and discloses novel memory devices with redundant
22 rows of memory cells, available for use among a particular group of memory sub-arrays.
23 The inventor assigned all right, title, and interest in the ‘181 patent to Mitsubishi Denki
24 Kabushiki Kaisha (hereinafter “Mitsubishi”). Mitsubishi’s right, title, and interest in the
25 ‘181 patent was subsequently assigned to Renesas Electronics Corp. (hereinafter
26 “Renesas”). Renesas assigned all right, title, and interest in the ‘181 patent to Acacia
27 Research Group LLC (“ARG”). The assignment to ARG was made subject only to
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1 certain prior non-exclusive license agreements and a limited non-exclusive and non-
2 transferable limited license to Renesas. Neither the prior licensees nor Renesas possesses
3 any right to sue for or collect past, present and future damages or to seek and obtain
4 injunctive or any other relief for infringement of the '181 patent.

5 40. Prior to the commencement of this action, ARG assigned all right, title, and
6 interest in the '181 patent to LMS, its wholly owned designated affiliate, including all of
7 ARG's rights, obligations, interests and liabilities under the assignment agreement with
8 Renesas. LMS assumed all such rights, obligations, interests and liabilities of ARG under
9 such assignment agreement. LMS thus possesses the right to sue for or collect past,
10 present and future damages or to seek and obtain injunctive or any other relief for
11 infringement of the '181 patent.

12 41. Defendant Dell, directly and/or through its subsidiaries, affiliates, agents,
13 and/or business partners, has in the past and continues to directly infringe the '181 patent
14 pursuant to 35 U.S.C. § 271(a) by making, having made, using, selling, offering to sell
15 and/or importing devices incorporating memory devices that embody the invention
16 claimed in the '181 patent, within the United States and within this District. Dell has been
17 and is engaged in one or more of these direct infringing activities related to its
18 manufacture, distribution, support, and sales of devices such as servers, personal
19 computers and laptop computers that incorporate DRAM chips manufactured by Micron,
20 including at least its DDR2, DDR3, DDR4, LPDDR, LPDDR2, LPDDR3,
21 LPDDR4 GDDR5, and RLDRAM chips (hereinafter "the '181 DRAM Chips") and any
22 other Micron chip having substantially similar structures providing redundant memory
23 cells.

24 42. A non-exhaustive list of part numbers associated with the '181 DRAM Chips
25 appears in a part catalog provided on Micron's website (<http://www.micron.com/>), which
26 list is attached hereto as Exhibit H.

1 43. Defendant Dell's infringing devices include, for example and without
2 limitation, the following computing devices incorporating one or more of the '181 DRAM
3 Chips:

- 4 a. XPS13 Laptop with Micron J8416E6MB-GNL-F 8 GB (8 x 1 GB)
5 DDR3L-RS 1600 MHz dual-channel RAM
- 6 b. Alienware 17 Laptop with Micron 4GB PC3L-12800 RAM
- 7 c. Precision T3610 Workstation with Micron P320h PCIe SSD drive
- 8 d. Precision T5610 Workstation with Micron P320h PCIe SSD drive
- 9 e. Precision T5810 Workstation with Micron P320h PCIe SSD drive
- 10 f. Precision T7610 Workstation with Micron P320h PCIe SSD drive
- 11 g. Precision T7810 Workstation with Micron P420m PCIe SSD drives
- 12 h. Precision Rack 7810 Workstation with Micron P420m PCIe SSD
13 drives
- 14 i. Precision Rack 7910 Workstation with Micron P420m PCIe SSD drive
- 15 j. PowerEdge T620 Blade Server with Micron P320h PCIe SSD drive
- 16 k. PowerEdge M620 Blade Server with Micron P320h PCIe SSD drive
- 17 l. PowerEdge M820 Blade Server with Micron P320h PCIe SSD drive
- 18 m. PowerEdge R620 Rack Server with Micron P320h PCIe SSD drive
- 19 n. PowerEdge R720 Rack Server with Micron P320h PCIe SSD drive
- 20 o. PowerEdge R820 Rack Server with Micron P320h PCIe SSD drive
- 21 p. Inspiron 14 7437 Laptop with Micron C400 256GB mSATA SSD

22 44. The service of this Complaint will provide Dell with actual notice of the '181
23 patent and of Plaintiff's infringement allegations herein.

24 45. Dell's direct infringement of the '181 patent has injured LMS. LMS is
25 entitled to recover damages adequate to compensate for such infringement pursuant to 35
26 U.S.C. § 284.

1 46. Unless it ceases its infringing activities, Defendant Dell will continue to
2 injure LMS by directly infringing the ‘181 patent.

3 47. Upon information and belief, Defendant Dell will continue its infringement
4 notwithstanding its actual knowledge of the ‘181 patent and while lacking an objectively
5 reasonable good faith basis to believe that its activities do not infringe any valid claim of
6 the ‘181 patent. As such, Dell’s future acts of infringement will constitute continuing
7 willful infringement of the ‘181 patent.

8 **FIFTH CAUSE OF ACTION – INFRINGEMENT OF ‘296 PATENT**

9 48. Plaintiff hereby repeats and re-alleges the allegations contained in paragraphs
10 1 to 47, as if fully set forth herein.

11 49. On May 15, 2004, U.S. Patent No. 6,697,296 (“the ‘296 patent”), entitled
12 “Clock Synchronous Semiconductor Memory Device” a copy of which is attached hereto
13 as Exhibit I, was duly and legally issued to the inventors, Junko Matsumoto, et al. The
14 ‘296 patent issued from U.S. patent application Serial Number 10/140,937 filed May 9,
15 2002 and discloses novel memory devices with input/output buffers that can be disabled
16 to reduce the power consumption of the memory device when it is in a low-power state.
17 The inventors assigned all right, title, and interest in the ‘296 patent to Mitsubishi Denki
18 Kabushiki Kaisha (hereinafter “Mitsubishi”). Mitsubishi’s right, title, and interest in the
19 ‘296 patent was subsequently assigned to Renesas Technology Group, which further
20 assigned such right, title, and interest to Renesas Electronics Corp. (hereinafter
21 “Renesas”). Renesas assigned all right, title, and interest in the ‘296 patent to Acacia
22 Research Group LLC (“ARG”). The assignment to ARG was made subject only to
23 certain prior non-exclusive license agreements and a limited non-exclusive and non-
24 transferable limited license to Renesas. Neither the prior licensees nor Renesas possesses
25 any right to sue for or collect past, present and future damages or to seek and obtain
26 injunctive or any other relief for infringement of the ‘296 patent.

1 50. Prior to the commencement of this action, ARG assigned all right, title, and
2 interest in the '296 patent to LMS, its wholly owned designated affiliate, including all of
3 ARG's rights, obligations, interests and liabilities under the assignment agreement with
4 Renesas. LMS assumed all such rights, obligations, interests and liabilities of ARG under
5 such assignment agreement. LMS thus possesses the right to sue for or collect past,
6 present and future damages or to seek and obtain injunctive or any other relief for
7 infringement of the '296 patent.

8 51. Defendant Dell, directly and/or through its subsidiaries, affiliates, agents,
9 and/or business partners, has in the past and continues to directly infringe the '296 patent
10 pursuant to 35 U.S.C. § 271(a) by making, having made, using, selling, offering to sell
11 and/or importing devices incorporating memory devices that embody the invention
12 claimed in the '296 patent, within the United States and within this District. Dell has been
13 and is engaged in one or more of these direct infringing activities related to its
14 manufacture, distribution, support, and sales of devices such as servers, personal
15 computers and laptop computers that incorporate DRAM chips manufactured by Micron,
16 including at least its DDR3, DDR4, LPDDR3, and LRPDDR4 chips (hereinafter "the '296
17 DRAM Chips") and any other Micron chip having substantially similar capability to
18 disable input/output buffers in a low power state.

19 52. A non-exhaustive list of part numbers associated with the '296 DRAM Chips
20 appears in a part catalog provided on Micron's website (<http://www.micron.com/>), which
21 list is attached hereto as Exhibit J.

22 53. Defendant Dell's infringing devices include, for example and without
23 limitation, the following computing devices incorporating one or more of the '296 DRAM
24 Chips:

- 25 a. XPS13 Laptop with Micron J8416E6MB-GNL-F 8 GB (8 x 1 GB)
- 26 DDR3L-RS 1600 MHz dual-channel RAM
- 27 b. Alienware 17 Laptop with Micron 4GB PC3L-12800 RAM

- 1 c. Precision T3610 Workstation with Micron P320h PCIe SSD drive
- 2 d. Precision T5610 Workstation with Micron P320h PCIe SSD drive
- 3 e. Precision T5810 Workstation with Micron P320h PCIe SSD drive
- 4 f. Precision T7610 Workstation with Micron P320h PCIe SSD drive
- 5 g. Precision T7810 Workstation with Micron P420m PCIe SSD drives
- 6 h. Precision Rack 7810 Workstation with Micron P420m PCIe SSD
- 7 drives
- 8 i. Precision Rack 7910 Workstation with Micron P420m PCIe SSD drive
- 9 j. PowerEdge T620 Blade Server with Micron P320h PCIe SSD drive
- 10 k. PowerEdge M620 Blade Server with Micron P320h PCIe SSD drive
- 11 l. PowerEdge M820 Blade Server with Micron P320h PCIe SSD drive
- 12 m. PowerEdge R620 Rack Server with Micron P320h PCIe SSD drive
- 13 n. PowerEdge R720 Rack Server with Micron P320h PCIe SSD drive
- 14 o. PowerEdge R820 Rack Server with Micron P320h PCIe SSD drive
- 15 p. Inspiron 14 7437 Laptop with Micron C400 256GB mSATA SSD

16 54. The service of this Complaint will provide Dell with actual notice of the ‘296
17 patent and of Plaintiff’s infringement allegations herein.

18 55. Dell’s direct infringement of the ‘296 patent has injured LMS. LMS is
19 entitled to recover damages adequate to compensate for such infringement pursuant to 35
20 U.S.C. § 284.

21 56. Unless it ceases its infringing activities, Defendant Dell will continue to
22 injure LMS by directly infringing the ‘296 patent.

23 57. Upon information and belief, Defendant Dell will continue its infringement
24 notwithstanding its actual knowledge of the ‘296 patent and while lacking an objectively
25 reasonable good faith basis to believe that its activities do not infringe any valid claim of
26 the ‘296 patent. As such, Dell’s future acts of infringement will constitute continuing
27 willful infringement of the ‘296 patent.

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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 Dell;
3. Judgment that Defendant Dell’s future acts of patent infringement relating to the ‘504, ‘441, ‘260, ‘181, and ‘296 patents are willful;
4. An award of damages arising out of Defendant Dell’s acts of patent infringement, together with pre-judgment and post-judgment interest;
5. Judgment that the damages so adjudged be trebled in accordance with 35 U.S.C. § 284;
6. An award of Plaintiff LMS’s attorneys’ fees, costs and expenses incurred in this action in accordance with 35 U.S.C. § 285; and
7. Such other and further relief as the Court may deem just and proper.

1 **RESERVATION OF RIGHTS**

2 LMS's investigation is ongoing, and certain material information remains in the
3 sole possession of Defendant Dell or third parties, which will be obtained via discovery
4 herein. LMS expressly reserves the right to amend or supplement the causes of action set
5 forth herein in accordance with Rule 15 of the Federal Rules of Civil Procedure.

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7 Respectfully submitted,

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9 Date: April 23, 2015

/s/ Jon A. Birmingham

10 Jon A. Birmingham (CA SBN 271034)
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17 **ATTORNEY FOR PLAINTIFF**

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

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