

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

LAKE CHEROKEE HARD DRIVE
TECHNOLOGIES, LLC, a Texas limited liability
company,

Plaintiff,

vs.

MARVELL ASIA PTE, LTD., a Singapore
corporation; SAMSUNG SEMICONDUCTOR, INC.,
a California corporation; SEAGATE
TECHNOLOGY LLC, a Delaware LLC; SEAGATE
TECHNOLOGY INTERNATIONAL, a Cayman
Islands company; TOSHIBA CORPORATION, a
Japanese corporation; TOSHIBA AMERICA
ELECTRONIC COMPONENTS, a California
corporation; TOSHIBA AMERICA INFORMATION
SYSTEMS, INC., a California corporation;
TOSHIBA ASIA PACIFIC PTE., LTD., a Singapore
corporation; TOSHIBA INFORMATION
EQUIPMENT (PHILIPPINES), INC., a Philippine
company; and WESTERN DIGITAL
TECHNOLOGIES, INC., a Delaware corporation;

Defendants.

CASE NO.

JURY DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Lake Cherokee Hard Drive Technologies, LLC (“Lake Cherokee”) sues
Defendants Marvell Asia Pte, Ltd.; Samsung Semiconductor, Inc.; Seagate Technology LLC;
Seagate Technology International; Toshiba Corporation; Toshiba America Electronic
Components; Toshiba America Information Systems, Inc.; Toshiba Asia Pacific Pte., Ltd.;
Toshiba Information Equipment (Philippines), Inc.; and Western Digital Technologies, Inc.

Introduction

1. Plaintiff Lake Cherokee owns the inventions described and claimed in United States Patent Nos. 5,844,738 entitled “Synchronous Read Channel Employing a Sequence Detector with Programmable Detector Levels” (the “‘738 Patent”) and 5,978,162 entitled “Synchronous Read Channel Integrated Circuit Employing a Channel Quality Circuit for Calibration” (the “‘162 Patent”) (collectively “the Patents”). Defendants (a) have used Plaintiff’s patented technology in products that they make, use, import, sell, and offer to sell, and (b) have contributed to or induced others to infringe the Patents. Lake Cherokee seeks damages for patent infringement from Defendants for making, using, selling, or offering to sell, and from contributing to and inducing others to make, use, sell, or offer to sell, the technology claimed by the Patents without Plaintiff’s permission.

Jurisdiction and Venue

2. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 271 and 281, *et seq.* The Court has original jurisdiction over this patent infringement action under 28 U.S.C. §§ 1331 and 1338(a).

3. Venue is proper in this Court because Defendants are responsible for acts of infringement occurring in the Eastern District of Texas as alleged in this Complaint, and have delivered or caused to be delivered their infringing products in the Eastern District of Texas.

Plaintiff Lake Cherokee

4. Plaintiff Lake Cherokee is a Texas limited liability company existing under and by virtue of the laws of the State of Texas.

The Patents

5. The United States Patent and Trademark Office issued the ‘738 Patent (attached as exhibit A) on December 1, 1998; and the ‘162 Patent (attached as exhibit B) on November 2, 1999.

6. Through assignment, Plaintiff is the owner of all right, title, and interest in the Patents, including all rights to pursue and collect damages for past infringement of the Patents.

Defendants

7. Upon information and belief, Marvell Asia Pte, Ltd. is a Singapore corporation headquartered at No. 8 Tai Seng Link, Singapore 534158.

8. Upon information and belief, Samsung Semiconductor, Inc. is a California corporation.

9. Upon information and belief, Seagate Technology LLC is a Delaware limited liability company.

10. Upon information and belief, Seagate Technology International is a Cayman Islands company.

11. Upon information and belief, Toshiba Asia Pacific Pte., LTD. is a Singapore company located at 20 Pasir Panjang Road #13-27/28 Mapletree Business City Singapore 117439.

12. Upon information and belief, Toshiba America Electronic Components is a California corporation.

13. Upon information and belief, Toshiba America Information Systems, Inc., is a California corporation.

14. Upon information and belief, Toshiba Corporation is a Japanese corporation with its headquarters at 1-1, Shibaura 1-chome, Minato-ku, Tokyo.

15. Upon information and belief, Toshiba Information Equipment (Philippines), Inc. is a Philippine corporation located at 103 East Main Avenue Extension Special Export Processing Zone, Laguna Technopark, Binan, Philippines.

16. Upon information and belief, Western Digital Technologies, Inc. is a Delaware corporation.

FIRST CLAIM FOR PATENT INFRINGEMENT ('738 PATENT)

17. Plaintiff incorporates by reference each of the allegations in paragraphs 1-16 above and further alleges as follows:

18. The United States Patent and Trademark Office issued the ‘738 patent on December 1, 1998. Plaintiff is the owner of the ‘738 Patent with full rights to pursue recovery of royalties or damages for infringement of said patent, including full rights to recover past and future damages.

Marvell Asia Pte, Ltd.

19. Marvell Asia Pte, Ltd (“MAPL”) has infringed the ‘738 patent by making, using, selling, offering for sale and/or importing infringing products and services, without a license or permission from Plaintiff. MAPL’s infringing products include, without limitation, read channel systems-on-a-chip (SOCs) for use in hard disk drives. These products include, but are not limited to, chips with product numbers beginning with 88i.

20. MAPL has actively induced customers (including direct and indirect customers) of its read channel SOC to infringe the ‘738 patent. MAPL first knew of the patent no later than July 2010, and perhaps substantially earlier. Since then, MAPL offered and continued to offer its read channel SOC for sale. MAPL knew that its actions would induce customers of its read channel SOC to infringe the ‘738 patent. These actions include (but are not limited to) placing its read channel SOC in the stream of commerce knowing that its customers would (1) make, use, or offer to sell infringing products containing the read channel SOC within the United States, and (2) import infringing products containing the read channel SOC into the United States. In addition, MAPL played and continues to play a fundamental role in manufacturing, packaging, and assisting the development of infringing products for its customers to (1) make, use, or offer to sell in the United States, and (2) import into the United States. MAPL knew that its customers’ products would be sold, offered for sale, or imported into the United States, and knew and intended that such sales would infringe the ‘738 patent. MAPL also instructed customers to use its read channel SOC in an infringing manner through, without limitation, advertisements, product documentation, technical specifications, and customer support. MAPL knew that its read channel SOC were designed such that normal use by its customers would

infringe the '738 patent. As a result of MAPL's inducement, customers of MAPL's infringing products have infringed the '738 patent.

21. MAPL sold, offered to sell, and/or imported products (including, without limitation, read channel SOC's for use in hard disk drives) for use in practicing the '738 patent. Infringing components in these products have no substantial non-infringing uses, and are known by MAPL to be especially made or especially adapted for use in the infringement of the '738 patent. As a result of MAPL's inducement, MAPL's customers have infringed the '738 patent. MAPL knew that its infringing products were especially made for infringement of the '738 patent; that they were not a staple article or commodity of commerce; and that they have no substantial non-infringing use.

22. MAPL's infringement of the '738 patent has been willful. MAPL knew of the '738 patent since, at the latest, July 2010. MAPL has disregarded an objectively high likelihood that its actions infringe the '738 patent. This risk has been known to MAPL, or was so obvious that it should have been known to it.

23. Plaintiff has been damaged by MAPL's infringement of the '738 patent.

Samsung

24. Defendant Samsung Semiconductor, Inc. ("Samsung") has infringed the '738 patent by making, using, selling, offering for sale and/or importing infringing products and services, without a license or permission from Plaintiff. Samsung's infringing products include, without limitation, hard disk drive products that contain Marvell read channel SOC's, including those obtained from MAPL.

25. Samsung has actively induced customers of its hard disk drive products to infringe the '738 patent. Samsung knew of the patent no later than July 2010. Since then, Samsung offered hard disk drive products containing Marvell read channel SOC's. Samsung knew that its actions would induce customers to infringe the '738 patent. In addition, Samsung instructed customers to use its read channel SOC's in an infringing manner through, without limitation, advertisements, product documentation, technical specifications, and customer

support. Samsung also programs its hard disk drive products containing Marvell read channel SOCs such that normal use will infringe the '738 patent. As a result of Samsung's inducement, customers of Samsung's infringing products have infringed the '738 patent.

26. Samsung sold, offered to sell, and/or imported products (including, without limitation, hard disk drive products containing Marvell read channel SOCs) for use in practicing the '738 patent. Infringing components in these products have no substantial non-infringing uses, and are known by Samsung to be especially made or especially adapted for use in the infringement of the '738 patent. As a result of Samsung's inducement, Samsung's customers have infringed the '738 patent.

27. Samsung's infringement of the '738 patent has been willful. Samsung knew of the '738 patent by at least July 2010. Samsung has disregarded an objectively high likelihood that its actions infringe the '738 patent. This risk has been known to Samsung, or was so obvious that it should have been known to it.

28. Plaintiff has been damaged by Samsung's infringement of the '738 patent.

Seagate

29. Defendants Seagate Technology LLC and Seagate Technology International (collectively "Seagate") have infringed the '738 patent by making, using, selling, offering for sale and/or importing infringing products and services, without a license or permission from Plaintiff. Seagate's infringing products include, without limitation, hard disk drive products that contain Marvell read channel SOCs, including those obtained from MAPL.

30. Seagate has actively induced customers of its hard disk drive products to infringe the '738 patent. Seagate knew of the patent no later than August 2012. Since then, Seagate offered hard disk drive products containing Marvell read channel SOCs. Seagate knew that its actions would induce customers to infringe the '738 patent. In addition, Seagate instructed customers to use its read channel SOCs in an infringing manner through, without limitation, advertisements, product documentation, technical specifications, and customer support. Seagate also programs its hard disk drive products containing Marvell read channel SOCs such that

normal use will infringe the '738 patent. As a result of Seagate's inducement, customers of Seagate's infringing products have infringed the '738 patent.

31. Seagate sold, offered to sell, and/or imported products (including, without limitation, hard disk drive products containing Marvell read channel SOCs) for use in practicing the '738 patent. Infringing components in these products have no substantial non-infringing uses, and are known by Seagate to be especially made or especially adapted for use in the infringement of the '738 patent. As a result of Seagate's inducement, Seagate's customers have infringed the '738 patent.

32. Seagate's infringement of the '738 patent has been willful. Seagate knew of the '738 patent by at least August 2012. Seagate has disregarded an objectively high likelihood that its actions infringe the '738 patent. This risk has been known to Seagate, or was so obvious that it should have been known to it.

33. Plaintiff has been damaged by Seagate's infringement of the '738 patent.

Toshiba

34. Defendants Toshiba Corporation, Toshiba Asia Pacific Pte., LTD., Toshiba Information Equipment (Philippines), Inc., Toshiba America Information Systems, Inc., and Toshiba America Electronic Components (collectively "Toshiba") have infringed the '738 patent by making, using, selling, offering for sale and/or importing infringing products and services, without a license or permission from Plaintiff. Toshiba's infringing products include, without limitation, hard disk drive products that contain Marvell read channel SOCs, including those obtained from MAPL.

35. Toshiba has actively induced customers of its hard disk drive products to infringe the '738 patent. Toshiba knew of the patent no later than October 2012. Since then, Toshiba offered hard disk drive products containing Marvell read channel SOCs. Toshiba knew that its actions would induce customers to infringe the '738 patent. In addition, Toshiba instructed customers to use its read channel SOCs in an infringing manner through, without limitation, advertisements, product documentation, technical specifications, and customer support. Toshiba

also programs its hard disk drive products containing Marvell read channel SOC's such that normal use will infringe the '738 patent. As a result of Toshiba's inducement, customers of Toshiba's infringing products have infringed the '738 patent.

36. Toshiba sold, offered to sell, and/or imported products (including, without limitation, hard disk drive products containing Marvell read channel SOC's) for use in practicing the '738 patent. Infringing components in these products have no substantial non-infringing uses, and are known by Toshiba to be especially made or especially adapted for use in the infringement of the '738 patent. As a result of Toshiba's inducement, Toshiba's customers have infringed the '738 patent.

37. Toshiba's infringement of the '738 patent has been willful. Toshiba knew of the '738 patent by at least October 2012. Toshiba has disregarded an objectively high likelihood that its actions infringe the '738 patent. This risk has been known to Toshiba, or was so obvious that it should have been known to it.

38. Plaintiff has been damaged by Toshiba's infringement of the '738 patent.

Western Digital Technologies, Inc.

39. Defendant Western Digital Technologies, Inc. ("Western Digital") has infringed the '738 patent by making, using, selling, offering for sale and/or importing infringing products and services, without a license or permission from Plaintiff. Western Digital's infringing products include, without limitation, hard disk drive products that contain Marvell read channel SOC's, including those obtained from MAPL.

40. Western Digital has actively induced customers of its hard disk drive products to infringe the '738 patent. Western Digital knew of the patent no later than August 2012. Since then, Western Digital offered hard disk drive products containing Marvell read channel SOC's. Western Digital knew that its actions would induce customers to infringe the '738 patent. In addition, Western Digital instructed customers to use its read channel SOC's in an infringing manner through, without limitation, advertisements, product documentation, technical specifications, and customer support. Western Digital also programs its hard disk drive products

containing Marvell read channel SOC's such that normal use will infringe the '738 patent. As a result of Western Digital's inducement, customers of Western Digital's infringing products have infringed the '738 patent.

41. Western Digital sold, offered to sell, and/or imported products (including, without limitation, hard disk drive products containing Marvell read channel SOC's) for use in practicing the '738 patent. Infringing components in these products have no substantial non-infringing uses, and are known by Western Digital to be especially made or especially adapted for use in the infringement of the '738 patent. As a result of Western Digital's inducement, Western Digital's customers have infringed the '738 patent.

42. Western Digital's infringement of the '738 patent has been willful. Western Digital knew of the '738 patent by at least August 2012. Western Digital has disregarded an objectively high likelihood that its actions infringe the '738 patent. This risk has been known to Western Digital, or was so obvious that it should have been known to it.

43. Plaintiff has been damaged by Western Digital's infringement of the '738 patent.

SECOND CLAIM FOR PATENT INFRINGEMENT ('162 PATENT)

44. Plaintiff incorporates by reference each of the allegations in paragraphs 1-16 above and further alleges as follows:

45. The United States Patent and Trademark Office issued the '162 patent on November 2, 1999. Plaintiff is the owner of the '162 Patent with full rights to pursue recovery of royalties or damages for infringement of said patent, including full rights to recover past and future damages.

Marvell Asia Pte, Ltd.

46. Marvell Asia Pte, Ltd ("MAPL") has infringed the '162 patent by making, using, selling, offering for sale and/or importing infringing products and services, without a license or permission from Plaintiff. MAPL's infringing products include, without limitation, read channels systems-on-a-chip (SOCs) for use in hard disk drives. These products include, but are not limited to, chips with product numbers beginning with 88i.

47. MAPL has actively induced customers (including direct and indirect customers) of its read channel SOC's to infringe the '162 patent. MAPL knew of the patent no later than July 2010, and perhaps substantially earlier. Since then, MAPL offered and continued to offer its read channel SOC's for sale. MAPL knew that its actions would induce customers of its read channel SOC's to infringe the '162 patent. These actions include (but are not limited to) placing its read channel SOC's in the stream of commerce knowing that its customers would (1) make, use, or offer to sell infringing products containing the read channel SOC's within the United States, and (2) import infringing products containing the read channel SOC's into the United States. In addition, MAPL played and plays a fundamental role in manufacturing, packaging, and assisting the development of infringing products for its customers to (1) make, use, or offer to sell in the United States, and (2) import into the United States. MAPL knew that its customers' products would be sold, offered for sale, or imported into the United States, and knew and intended that such sales would infringe the '162 patent. MAPL also instructed customers to use its read channel SOC's in an infringing manner through, without limitation, advertisements, product documentation, technical specifications, and customer support. MAPL knew that its read channel SOC's were designed such that normal use by its customers would infringe the '162 patent. As a result of MAPL's inducement, customers of MAPL's infringing products have infringed the '162 patent.

48. MAPL sold, offered to sell, and/or imported products (including, without limitation, read channel SOC's for use in hard disk drives) for use in practicing the '162 patent. Infringing components in these products have no substantial non-infringing uses, and are known by MAPL to be especially made or especially adapted for use in the infringement of the '162 patent. As a result of MAPL's inducement, MAPL's customers have infringed the '162 patent. MAPL knew that its infringing products were especially made for infringement of the '162 patent; that they were not a staple article or commodity of commerce; and that they have no substantial non-infringing use.

49. MAPL's infringement of the '162 patent has been willful. MAPL knew of the '162 patent since, at the latest, July 2010. MAPL has disregarded an objectively high likelihood that its actions infringe the '162 patent. This risk has been known to MAPL, or was so obvious that it should have been known to it.

50. Plaintiff has been damaged by MAPL's infringement of the '162 patent.

Samsung

51. Defendant Samsung Semiconductor, Inc. ("Samsung") has infringed the '162 patent by making, using, selling, offering for sale and/or importing infringing products and services, without a license or permission from Plaintiff. Samsung's infringing products include, without limitation, hard disk drive products that contain Marvell read channel SOC's, including those obtained from MAPL.

52. Samsung has actively induced customers of its hard disk drive products to infringe the '162 patent. Samsung knew of the patent no later than July 2010. Since then, Samsung offered hard disk drive products containing Marvell read channel SOC's. Samsung knew that its actions would induce customers to infringe the '162 patent. In addition, Samsung instructed customers to use its read channel SOC's in an infringing manner through, without limitation, advertisements, product documentation, technical specifications, and customer support. Samsung also programs its hard disk drive products containing Marvell read channel SOC's such that normal use will infringe the '162 patent. As a result of Samsung's inducement, customers of Samsung's infringing products have infringed the '162 patent.

53. Samsung sold, offered to sell, and/or imported products (including, without limitation, hard disk drive products containing Marvell read channel SOC's) for use in practicing the '162 patent. Infringing components in these products have no substantial non-infringing uses, and are known by Samsung to be especially made or especially adapted for use in the infringement of the '162 patent. As a result of Samsung's inducement, Samsung's customers have infringed the '162 patent.

54. Samsung's infringement of the '162 patent has been willful. Samsung knew of the '162 patent by at least July 2010. Samsung has disregarded an objectively high likelihood that its actions infringe the '162 patent. This risk has been known to Samsung, or was so obvious that it should have been known to it.

55. Plaintiff has been damaged by Samsung's infringement of the '162 patent.

Seagate

56. Defendants Seagate Technology LLC and Seagate Technology International (collectively "Seagate") have infringed the '162 patent by making, using, selling, offering for sale and/or importing infringing products and services, without a license or permission from Plaintiff. Seagate's infringing products include, without limitation, hard disk drive products that contain Marvell read channel SOC's, including those obtained from MAPL.

57. Seagate has actively induced customers of its hard disk drive products to infringe the '162 patent. Seagate knew of the patent no later than August 2012. Since then, Seagate offered hard disk drive products containing Marvell read channel SOC's. Seagate knew that its actions would induce customers to infringe the '162 patent. In addition, Seagate instructed customers to use its read channel SOC's in an infringing manner through, without limitation, advertisements, product documentation, technical specifications, and customer support. Seagate also programs its hard disk drive products containing Marvell read channel SOC's such that normal use will infringe the '162 patent. As a result of Seagate's inducement, customers of Seagate's infringing products have infringed the '162 patent.

58. Seagate sold, offered to sell, and/or imported products (including, without limitation, hard disk drive products containing Marvell read channel SOC's) for use in practicing the '162 patent. Infringing components in these products have no substantial non-infringing uses, and are known by Seagate to be especially made or especially adapted for use in the infringement of the '162 patent. As a result of Seagate's inducement, Seagate's customers have infringed the '162 patent.

59. Seagate's infringement of the '162 patent has been willful. Seagate knew of the '162 patent by at least August 2012. Seagate has disregarded an objectively high likelihood that its actions infringe the '162 patent. This risk has been known to Seagate, or was so obvious that it should have been known to it.

60. Plaintiff has been damaged by Seagate's infringement of the '162 patent.

Toshiba

61. Defendants Toshiba Corporation, Toshiba Asia Pacific Pte., LTD., Toshiba Information Equipment (Philippines), Inc., Toshiba America Information Systems, Inc., and Toshiba America Electronic Components (collectively "Toshiba") have infringed the '162 patent by making, using, selling, offering for sale and/or importing infringing products and services, without a license or permission from Plaintiff. Toshiba's infringing products include, without limitation, hard disk drive products that contain Marvell read channel SOC's, including those obtained from MAPL.

62. Toshiba has actively induced customers of its hard disk drive products to infringe the '162 patent. Toshiba knew of the patent no later than October 2012. Since then, Toshiba offered hard disk drive products containing Marvell read channel SOC's. Toshiba knew that its actions would induce customers to infringe the '162 patent. In addition, Toshiba instructed customers to use its read channel SOC's in an infringing manner through, without limitation, advertisements, product documentation, technical specifications, and customer support. Toshiba also programs its hard disk drive products containing Marvell read channel SOC's such that normal use will infringe the '162 patent. As a result of Toshiba's inducement, customers of Toshiba's infringing products have infringed the '162 patent.

63. Toshiba sold, offered to sell, and/or imported products (including, without limitation, hard disk drive products containing Marvell read channel SOC's) for use in practicing the '162 patent. Infringing components in these products have no substantial non-infringing uses, and are known by Toshiba to be especially made or especially adapted for use in the

infringement of the '162 patent. As a result of Toshiba's inducement, Toshiba's customers have infringed the '162 patent.

64. Toshiba's infringement of the '162 patent has been willful. Toshiba knew of the '162 patent by at least October 2012. Toshiba has disregarded an objectively high likelihood that its actions infringe the '162 patent. This risk has been known to Toshiba, or was so obvious that it should have been known to it.

65. Plaintiff has been damaged by Toshiba's infringement of the '162 patent.

Western Digital Technologies, Inc.

66. Defendant Western Digital Technologies, Inc. ("Western Digital") has infringed the '162 patent by making, using, selling, offering for sale and/or importing infringing products and services, without a license or permission from Plaintiff. Western Digital's infringing products include, without limitation, hard disk drive products that contain Marvell read channel SOC's, including those obtained from MAPL.

67. Western Digital has actively induced customers of its hard disk drive products to infringe the '162 patent. Western Digital knew of the patent no later than August 2012. Since then, Western Digital offered hard disk drive products containing Marvell read channel SOC's. Western Digital knew that its actions would induce customers to infringe the '162 patent. In addition, Western Digital instructed customers to use its read channel SOC's in an infringing manner through, without limitation, advertisements, product documentation, technical specifications, and customer support. Western Digital also programs its hard disk drive products containing Marvell read channel SOC's such that normal use will infringe the '162 patent. As a result of Western Digital's inducement, customers of Western Digital's infringing products have infringed the '162 patent.

68. Western Digital sold, offered to sell, and/or imported products (including, without limitation, hard disk drive products containing Marvell read channel SOC's) for use in practicing the '162 patent. Infringing components in these products have no substantial non-infringing uses, and are known by Western Digital to be especially made or especially adapted for use in

the infringement of the '162 patent. As a result of Western Digital's inducement, Western Digital's customers have infringed the '162 patent.

69. Western Digital's infringement of the '162 patent has been willful. Western Digital knew of the '162 patent by at least August 2012. Western Digital has disregarded an objectively high likelihood that its actions infringe the '162 patent. This risk has been known to Western Digital, or was so obvious that it should have been known to it.

70. Plaintiff has been damaged by Western Digital's infringement of the '162 patent.

Jury Demand

Plaintiff demands trial by jury of all issues.

Prayer for Relief

WHEREFORE, Plaintiff prays for judgment as follows:

- A. Compensatory damages for Defendants' infringement of the '738 and '162 patents;
- B. Enhanced damages for Defendants' willful infringement;
- C. Costs of suit and attorneys' fees;
- D. Pre-judgment interest; and
- E. Such other relief as justice requires.

Dated: September 5, 2013

Respectfully submitted,

By: /s/ Christin Cho

Christin Cho

CA State Bar No. 238173

(admitted to practice before the U.S. District Court for the Eastern District of Texas)

Gregory S. Dovel

CA State Bar No. 135387

(admitted to practice before the U.S. District Court for the Eastern District of Texas)

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