IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

CSR plc)
Plaintiff,))
)
V.) DEMAND FOR JURY TRIAL
BROADCOM CORP.) DEMAND FOR JUNE TRIAL
Defendant.))
)

COMPLAINT

Plaintiff CSR plc ("CSR") brings this action against Defendant Broadcom Corp. ("Broadcom") and alleges as follows:

PARTIES

- 1. CSR is a corporation registered in the United Kingdom with its principal place of business at Churchill House, Cambridge Business Park, Cowley Road, Cambridge, CB4 0WZ United Kingdom, and with its U.S. headquarters in California. CSR wholly owns SiRF Technology Holdings, Inc., which in turn wholly owns SiRF Technology, Inc. ("SiRF"), a Delaware corporation.
- 2. On information and belief, Broadcom is a corporation organized under the laws of California with its principal place of business at 5300 California Ave., Irvine, California 92617.

JURISDICTION AND VENUE

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

- 4. This Court has personal jurisdiction over Broadcom because, *inter alia*, Broadcom conducts substantial business in this forum, including: (i) deriving substantial revenue from sales of goods in this District, including significant revenue derived from sales of infringing goods as alleged herein; (ii) regularly doing or soliciting business, including contracting to supply goods and services with businesses and individuals in this District, including goods and services that encompass the infringing goods, as alleged herein; and (iii) engaging in other persistent, systematic, and continuous courses of conduct in this District. The courts of Delaware have jurisdiction over Broadcom under 10 *Del. C.* § 3104.
- 5. Venue is proper pursuant to 28 U.S.C. § 1391(b) and § 1400(b). On information and belief, Broadcom has transacted business in this District, and has committed and/or induced acts of patent infringement in this District.

BACKGROUND

6. CSR is one of the world's leading providers of connectivity and location-enabled semiconductor products. CSR and SiRF are in the business of supplying low-cost, mass-produced, commercial Global Positioning System ("GPS") and assisted GPS ("AGPS") receiver chips and associated software for use in GPS end-user devices and systems. These GPS and AGPS chips, along with the associated software and systems, are used in a wide variety of mass produced mobile consumer devices such as, for example, personal navigation devices ("PNDs"), automobile navigation and telematics systems, cellular telephones, laptop computers, handheld personal digital assistants ("PDAs"), wireless headsets, mobile computers, mobile Internet devices, GPS recreational devices, digital cameras, and mobile gaming, as well as a wide range of personal and commercial tracking applications.

- 7. Broadcom sells semiconductor products providing GPS, AGPS, mobile, and wireless capabilities that compete with CSR's products. For example, Broadcom's BCM4750, BCM4751, BCM4760, BCM2075, BCM20751, and Hammerhead II semiconductor products are key components of its GPS and AGPS business. Upon information and belief, a reasonable opportunity for discovery will show that at least the Broadcom semiconductor products identified herein infringe one or more claims of CSR's asserted patents.
- 8. The BCM4750, and its successor, the BCM4751, are single-chip GPS receivers that interface with mobile phones, PDAs, PNDs, and MP3 players. For some time, the BCM4750 has been and remains Broadcom's main offering in the market for discrete GPS semiconductor products. As alleged below, the BCM4750 and BCM4751 infringe CSR's asserted patents.
- 9. The BCM2075 and BCM20751 are Bluetooth FM and GPS combination devices for use in mobile handsets, media players, and PNDs that require GPS receiver functionality. Broadcom recently introduced these products on the market with considerable fanfare. However, as alleged below, the BCM2075 and BCM20751 infringe CSR's asserted patents.
- 10. The BCM4760 is a System-on-Chip device combining a GPS receiver and application processor designed for PNDs and other low-power electronics products. As alleged below, the BCM4760 infringes CSR's asserted patents.
- 11. The Hammerhead II is a single-chip GPS receiver that interfaces with mobile phones, PDAs, PNDs, and MP3 players. Prior to the BCM4750, the Hammerhead II was Broadcom's main offering in the market for discrete GPS semiconductor products. As alleged below, the Hammerhead II infringes CSR's asserted patents.

PATENTS IN SUIT

- 12. On April 27, 1999, the United States Patent and Trademark Office ("USPTO") issued U.S. Patent No. 5,897,605 ("the '605 patent"), entitled "Spread Spectrum Receiver with Fast Signal Reacquisition," to SiRF, the assignee of named inventors Sanjal Kohli and Steven Chen. CSR is the owner of all right, title and interest in the '605 patent. A true and correct copy of the '605 patent is attached hereto as Exhibit 1.
- 13. On February 25, 2003, the USPTO issued U.S. Patent No. 6,526,322 ("the '322 patent"), entitled "Shared Memory Architecture in GPS Signal Processing," to SiRF, the assignee of named inventors Leon Kuo-Liang Peng and Henry D. Falk. CSR is the owner of all right, title and interest in the '322 patent. A true and correct copy of the '322 patent is attached hereto as Exhibit 2.
- 14. On August 10, 2004, the USPTO issued U.S. Patent No. 6,775,319 ("the '319 patent"), entitled "Spread Spectrum Receiver Architectures and Methods Therefor," to Motorola, Inc., the assignee of named inventors Thomas Michael King, Denise C. Riemer, Robert B. Harbour, and Andrew P. Hoover. CSR is the owner of all right, title and interest in the '319 patent. A true and correct copy of the '319 is attached hereto as Exhibit 3.
- 15. On August 16, 2005, the USPTO issued U.S. Patent No. 6,930,634 ("the '634 patent"), entitled "Shared Memory Architecture in GPS Signal Processing," to SiRF, the assignee of named inventors Leon Kuo-Liang Peng and Henry D. Falk. CSR is the owner of all right, title and interest in the '634 patent. A true and correct copy of the '634 patent is attached hereto as Exhibit 4.

FIRST CAUSE OF ACTION INFRINGEMENT OF U.S. PATENT NO. 5,897,605

- 16. CSR realleges and incorporates by reference the allegations of paragraphs 1-15 herein.
- 17. On information and belief, Broadcom has infringed and continues to infringe, directly and/or indirectly by way of inducement and/or contributory infringement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271, one or more claims of the '605 patent by making, having made, using, importing, selling and/or offering for sale in the United States one or more semiconductor products that embody the invention claimed in the '605 patent, or that use and/or incorporate the claimed invention, including, by way of example and without limitation, the BCM4760, BCM4750, BCM4751, BCM2075, BCM20751, and Hammerhead II GPS semiconductor products.
- 18. By infringing the '605 patent, Broadcom has caused and will continue to cause CSR to suffer damages in an amount to be determined at trial.
- 19. By way of its past and continued acts of infringement of CSR's patents, Broadcom has caused, and will continue to cause, CSR irreparable injury and damages, including but not limited to, lost profits and diminution of the rights granted under CSR's patents.
- 20. CSR will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Broadcom is enjoined from infringing CSR's '605 patent.
- 21. Upon information and belief, Broadcom's infringement of the '605 patent is willful and CSR should be awarded increased damages pursuant to 35 U.S.C. § 284 and attorneys fees pursuant to 35 U.S.C. § 285.

SECOND CAUSE OF ACTION INFRINGEMENT OF U.S. PATENT NO. 6,526,322

- 22. CSR realleges and incorporates by reference the allegations of paragraphs 1-15 herein.
- On information and belief, Broadcom has infringed and continues to infringe, directly and/or indirectly by way of inducement and/or contributory infringement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271, one or more claims of the '322 patent by making, having made, using, importing, selling and/or offering for sale in the United States one or more semiconductor products that embody the invention claimed in the '322 patent, or that use and/or incorporate the claimed invention, including, by way of example and without limitation, the BCM4760, BCM4750, BCM4751, BCM2075, BCM20751, and Hammerhead II GPS semiconductor products.
- 24. By infringing the '322 patent, Broadcom has caused and will continue to cause CSR to suffer damages in an amount to be determined at trial.
- 25. By way of its past and continued acts of infringement of CSR's patents, Broadcom has caused, and will continue to cause, CSR irreparable injury and damages, including but not limited to, lost profits and diminution of the rights granted under CSR's '322 patent.
- 26. CSR will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Broadcom is enjoined from infringing CSR's patents.
- 27. Upon information and belief, Broadcom's infringement of the '322 patent is willful and CSR should be awarded increased damages pursuant to 35 U.S.C. § 284 and attorneys fees pursuant to 35 U.S.C. § 285.

THIRD CAUSE OF ACTION INFRINGEMENT OF U.S. PATENT NO. 6,775,319

- 28. CSR realleges and incorporates by reference the allegations of paragraphs 1-15 herein.
- 29. On information and belief, Broadcom has infringed and continues to infringe, directly and/or indirectly by way of inducement and/or contributory infringement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271, one or more claims of the '319 patent by making, having made, using, importing, selling and/or offering for sale in the United States one or more semiconductor products that embody the invention claimed in the '319 patent, or that use and/or incorporate the claimed invention, including, by way of example and without limitation, the BCM4760, BCM4750, BCM4751, BCM2075, BCM20751, and Hammerhead II GPS semiconductor products.
- 30. By infringing the '319 patent, Broadcom has caused and will continue to cause CSR to suffer damages in an amount to be determined at trial.
- 31. By way of its past and continued acts of infringement of CSR's patents, Broadcom has caused, and will continue to cause, CSR irreparable injury and damages, including but not limited to, lost profits and diminution of the rights granted under CSR's '319 patent.
- 32. CSR will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Broadcom is enjoined from infringing CSR's patents.
- 33. Upon information and belief, Broadcom's infringement of the '319 patent is willful and CSR should be awarded increased damages pursuant to 35 U.S.C. § 284 and attorneys fees pursuant to 35 U.S.C. § 285.

FOURTH CAUSE OF ACTION INFRINGEMENT OF U.S. PATENT NO. 6,930,634

- 34. CSR realleges and incorporates by reference the allegations of paragraphs 1-15 herein.
- 35. On information and belief, Broadcom has infringed and continues to infringe, directly and/or indirectly by way of inducement and/or contributory infringement, literally and/or under the doctrine of equivalents, in violation of 35 U.S.C. § 271, one or more claims of the '634 patent by making, having made, using, importing, selling and/or offering for sale in the United States one or more semiconductor products that embody the invention claimed in the '634 patent, or that use and/or incorporate the claimed invention, including, by way of example and without limitation, the BCM4760, BCM4750, BCM4751, BCM2075, BCM20751, and Hammerhead II GPS semiconductor products.
- 36. By infringing the '634 patent, Broadcom has caused and will continue to cause CSR to suffer damages in an amount to be determined at trial.
- 37. By way of its past and continued acts of infringement of CSR's patents, Broadcom has caused, and will continue to cause, CSR irreparable injury and damages, including but not limited to, lost profits and diminution of the rights granted under CSR's '634 patent.
- 38. CSR will suffer further irreparable injury, for which it has no adequate remedy at law, unless and until Broadcom is enjoined from infringing CSR's patents.
- 39. Upon information and belief, Broadcom's infringement of the '634 patent is willful and CSR should be awarded increased damages pursuant to 35 U.S.C. § 284 and attorneys fees pursuant to 35 U.S.C. § 285.

PRAYER FOR RELIEF

WHEREFORE, CSR prays that this Court:

- A. Enter judgment in favor of CSR that Broadcom directly and/or indirectly infringes claims of each of the four CSR patents identified above;
- B. Enter judgment enjoining Broadcom from selling, offering to sell, making, using, or importing any product that infringes any claim of any of the four CSR patents identified above;
- C. Award CSR damages pursuant to 35 U.S.C. § 284, including costs and prejudgment interest;
- D. Award CSR treble damages under 35 U.S.C. § 284 as a result of Broadcom's willful infringement of CSR's patents;
- E. Declare this case exceptional under 35 U.S.C. § 285 and award CSR reasonable attorneys' fees, costs, and expenses; and
- F. Award CSR such other relief as the Court deems just and appropriate.

DEMAND FOR JURY TRIAL

CSR demands a trial by jury on all issues so triable.

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