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RICHARD W. BREKING  
CLERK, U.S. DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

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12 RAMBUS INC.

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

RS

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14  
15 RAMBUS INC.,

Plaintiff,

v.

18 BROADCOM CORPORATION,

19 Defendant.

CASE NO. **CV10 5437**

**COMPLAINT FOR PATENT  
INFRINGEMENT  
DEMAND FOR JURY TRIAL**

1 Plaintiff Rambus Inc. ("Rambus") states the following as its Complaint against Defendant  
2 Broadcom Corporation ("Broadcom"):

3 I.

4 **THE PARTIES**

5 1. Plaintiff Rambus is a Delaware corporation with its principal place of business at  
6 1050 Enterprise Way, Sunnyvale, California 94089.

7 2. Rambus is informed and believes, and thereupon alleges, that defendant Broadcom is  
8 a California corporation with its headquarters located at 5300 California Avenue, Irvine, California  
9 92617. Upon information and belief, Broadcom has substantial contacts and transacts substantial  
10 business, either directly or through its agent, on an ongoing basis in this judicial district and  
11 elsewhere in the United States. For example, upon information and belief, Broadcom maintains a  
12 major office and conducts business at 190 Mathilda Place, Sunnyvale, California 94086, and  
13 conducts business at additional offices in San Jose and Santa Clara, California.

14 3. Unless specifically stated otherwise, the acts complained of herein were committed  
15 by, on behalf of, and/or for the benefit of Broadcom.

16 II.

17 **NATURE OF THE ACTION**

18 4. This is an action for patent infringement.

19 5. Rambus is informed and believes, and thereupon alleges, that Broadcom has been  
20 and/or is infringing, contributing to the infringement of, and/or actively inducing others to infringe  
21 claims of U.S. Patent No. 6,034,918 (the "918 Patent"), U.S. Patent No. 6,038,195 (the "195  
22 Patent"), U.S. Patent No. 6,260,097 (the "097 Patent"), U.S. Patent No. 6,304,937 (the "937  
23 Patent"), U.S. Patent No. 6,426,916 (the "916 Patent"), U.S. Patent No. 6,470,405 (the "405  
24 Patent"), U.S. Patent No. 6,542,555 (the "555 Patent"), U.S. Patent No. 6,564,281 (the "281  
25 Patent"), U.S. Patent No. 6,584,037 (the "037 Patent"), U.S. Patent No. 6,591,353 (the "353  
26 Patent"), U.S. Patent No. 6,715,020 (the "020 Patent"), U.S. Patent No. 6,751,696 (the "696  
27 Patent"), U.S. Patent No. 7,099,404 (the "404 Patent"), U.S. Patent No. 7,209,997 (the "997  
28 Patent"), U.S. Patent No. 7,287,109 (the "109 Patent"), U.S. Patent No. 7,580,474 (the "474

1 Patent”), U.S. Patent No. 7,602,857 (the “857 Patent”), U.S. Patent No. 7,602,858 (the “858  
2 Patent”), and U.S. Patent No. 7,715,494 (the “494 Patent”) (collectively the “Asserted Patents”).

3 **III.**

4 **JURISDICTION AND VENUE**

5 6. This action arises under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*,  
6 including 35 U.S.C. § 271. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331  
7 and 1338(a).

8 7. This Court has personal jurisdiction over Broadcom because Broadcom has  
9 substantial contacts and conducts business in the State of California and in this judicial district, and  
10 has been infringing, contributing to the infringement of and/or actively inducing others to infringe  
11 claims of the Asserted Patents in California and elsewhere.

12 8. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391(b), 1391(c), 1391(d)  
13 and/or 1400(b) because a substantial part of the events giving rise to Rambus’s claims occurred in  
14 the Northern District of California and because Broadcom is subject to personal jurisdiction in the  
15 Northern District of California.

16 **IV.**

17 **FACTUAL BACKGROUND**

18 **A. Rambus**

19 9. Rambus is one of the world’s leading designers of semiconductor interface  
20 technologies that are used in a broad range of consumer, computing, and communications  
21 applications. In addition to the development of high-speed interfaces, Rambus’s breakthrough  
22 technology and unparalleled engineering expertise have solved the most challenging interface  
23 problems and have brought industry-leading products to market. Rambus’s interface solutions have  
24 enabled state-of-the-art performance in many products, such as personal computers, workstations,  
25 servers, gaming consoles, televisions, Blu-ray players, set-top boxes, printers, video projectors,  
26 network switches, modems, routers, mobile phones, and graphics cards.

27 10. In the late 1980s, Michael Farmwald and Mark Horowitz, the founders of Rambus,  
28 recognized and set out to solve the “memory bottleneck problem,” the failure of memory interfaces

1 to keep pace with the exponential growth in microprocessor speed. Farmwald and Horowitz's  
2 inventions enabled a dynamic random access memory (DRAM) memory architecture that achieved  
3 data transmission rates of 500 megahertz, at a time when other DRAM chips were running in the  
4 range of 20-30 megahertz.

5 11. Since its founding in 1990, Rambus has continued to design, develop, market, and  
6 license its high speed interface technology. Rambus's inventions include new memory devices, new  
7 controllers for controlling such memory devices, and new systems incorporating those memory  
8 devices and memory controllers. Rambus's inventions also include new transmitters and receivers  
9 and interface technology.

10 12. Rambus has made large-scale investments in the exploitation of its technology and a  
11 large number of companies have paid for licenses to its patents. Rambus has granted licenses of  
12 varying scope to its technology to many of the world's largest semiconductor manufacturers.

13 13. Since 1990, Rambus has spent millions of dollars on research and development of its  
14 valuable technology. Rambus relies on the United States patent system to protect the technology  
15 resulting from its research and development. Rambus's continued success depends on its research  
16 and development of memory interface and other solutions, as well as the protection of intellectual  
17 property in its innovative technology.

18 **B. Asserted Patents**

19 14. On April 18, 1990, U.S. Patent Application No. 07/510,898 was filed naming Michael  
20 Farmwald and Mark Horowitz as inventors. The Asserted Patents claiming priority to this  
21 application are referred to herein as the "Farmwald/Horowitz Patents."

22 15. On October 19, 1995, U.S. Patent Application No. 08/545,292 was filed naming  
23 Richard M. Barth and other individuals as inventors. The Asserted Patents claiming priority to this  
24 application are referred to herein as the "Barth Patents."

25 16. On June 20, 1997, U.S. Provisional Patent Application No. 60/050,098 was filed, on  
26 June 23, 1997, U.S. Patent Application No. 08/880,980 was filed, and on June 25, 1997, U.S. Patent  
27 Application No. 08/882,252 was filed, each naming William J. Dally as inventor. The Asserted  
28 Patents claiming priority to these applications are referred to herein as the "Dally Patents."

**1. Farmwald/Horowitz Patents**

17. On March 7, 2000, U.S. Patent No. 6,034,918, titled "Method of Operating a Memory Having a Variable Data Output Length and a Programmable Register," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

18. On March 14, 2000, U.S. Patent No. 6,038,195, titled "Synchronous Memory Device Having a Delay Time Register and Method of Operating Same," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

19. On July 10, 2001, U.S. Patent No. 6,260,097, titled "Method and Apparatus for Controlling a Synchronous Memory Device," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

20. On October 16, 2001, U.S. Patent No. 6,304,937, titled "Method of Operation of a Memory Controller," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

21. On July 30, 2002, U.S. Patent No. 6,426,916, titled "Memory Device Having a Variable Data Output Length and a Programmable Register," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

22. On May 13, 2003, U.S. Patent No. 6,564,281, titled "Synchronous Memory Device Having Automatic Precharge," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

23. On June 24, 2003, U.S. Patent No. 6,584,037, titled "Memory Device Which Samples Data After an Amount of Time Expires," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

24. On March 30, 2004, U.S. Patent No. 6,715,020, titled "Synchronous Integrated Circuit Device," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

25. On June 15, 2004, U.S. Patent No. 6,751,696, titled "Memory Device Having a Programmable Register," was duly and legally issued to Rambus, as assignee of named inventors Michael Farmwald and Mark Horowitz.

1           26.    On April 24, 2007, U.S. Patent No. 7,209,997, titled “Controller Device and Method  
2 for Operating Same,” was duly and legally issued to Rambus, as assignee of named inventors  
3 Michael Farmwald and Mark Horowitz.

4           27.    The Farmwald/Horowitz Patents include claims directed to improving the  
5 performance of memory controllers.

6           28.    At all relevant times, Rambus has been the owner of the entire right, title, and interest  
7 in each of the Farmwald/Horowitz Patents.

8                   **2.    Barth Patents**

9           29.    On October 22, 2002, U.S. Patent No. 6,470,405, titled “Protocol for Communication  
10 with Dynamic Memory,” was duly and legally issued to Rambus, as assignee of Richard M. Barth  
11 and the other inventors named therein.

12           30.    On July 8, 2003, U.S. Patent No. 6,591,353, titled “Protocol for Communication with  
13 Dynamic Memory,” was duly and legally issued to Rambus, as assignee of Richard M. Barth and the  
14 other inventors named therein.

15           31.    On October 23, 2007, U.S. Patent No. 7,287,109, titled “Method of Controlling a  
16 Memory Device Having a Memory Core,” was duly and legally issued to Rambus, as assignee of  
17 Richard M. Barth and the other inventors named therein.

18           32.    The Barth Patents include claims directed to improving the performance of memory  
19 controllers.

20           33.    At all relevant times, Rambus has been the owner of the entire right, title, and interest  
21 in each of the Barth Patents.

22                   **3.    Dally Patents**

23           34.    On April 1, 2003, U.S. Patent No. 6,542,555, titled “Digital Transmitter With  
24 Equalization,” was duly and legally issued to the Massachusetts Institute of Technology (“MIT”), as  
25 assignee of named inventor William J. Dally.

26           35.    On August 29, 2006, U.S. Patent No. 7,099,404, titled “Digital Transmitter,” was  
27 duly and legally issued to MIT, as assignee of named inventor William J. Dally.

1 36. On August 25, 2009, U.S. Patent No. 7,580,474, titled "Digital Transmitter," was  
2 duly and legally issued to MIT, as assignee of named inventor William J. Dally.

3 37. On October 13, 2009, U.S. Patent No. 7,602,857, titled "Digital Transmitter," was  
4 duly and legally issued to MIT, as assignee of named inventor William J. Dally.

5 38. On October 13, 2009, U.S. Patent No. 7,602,858, titled "Digital Transmitter," was  
6 duly and legally issued to MIT, as assignee of named inventor William J. Dally.

7 39. On May 11, 2010, U.S. Patent No. 7,715,494, titled "Digital Transmitter," was duly  
8 and legally issued to MIT, as assignee of named inventor William J. Dally.

9 40. The Dally Patents include claims directed to improving the performance of digital  
10 communications.

11 41. At all relevant times, the Dally Patents have been owned by MIT. MIT has  
12 exclusively licensed the Dally Patents to Rambus, subject only to any rights retained by the United  
13 States federal government pursuant to 35 U.S.C. §§ 201-211, with the right to sublicense, and the  
14 right to prosecute any past, present, or future infringement of the Dally Patents.

15 **C. Broadcom's Acts of Infringement**

16 42. Rambus is informed and believes, and thereupon alleges, that Broadcom has made,  
17 used, sold, imported and/or offered for sale, and/or continued to make, use, sell, import and/or offer  
18 for sale, products in the United States consisting of or including DRAM memory controllers,  
19 including SDR (Single Data Rate) memory controllers, DDR-type memory controllers (including  
20 DDR or Double Data Rate memory controllers, DDR2 or Double Data Rate 2 memory controllers,  
21 and DDR3 or Double Data Rate 3 memory controllers), GDDR-type memory controllers (including  
22 GDDR3 or Graphic Double Data Rate 3 memory controllers), and mobile and/or low power versions  
23 of the aforementioned memory controllers.

24 43. Rambus is informed and believes, and thereupon alleges, that Broadcom has made,  
25 used, sold, imported and/or offered for sale, and/or continued to make, use, sell, import and/or offer  
26 for sale, products in the United States consisting of or including high-speed SerDes interfaces,  
27 including PCI Express peripheral interfaces.

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1           44.     The aforementioned Broadcom products are hereinafter referred to collectively as the  
2 “Accused Products.” The Accused Products include at least products that are part of, for example,  
3 Broadcom’s Broadband Communications, Mobile & Wireless, and Network Infrastructure product  
4 lines.

5           45.     Broadcom’s making, use, sale, offers for sale, and/or importation of the Accused  
6 Products in the United States constitute acts of direct infringement of the Asserted Patents.

7           46.     In early July 2006, Rambus contacted Broadcom regarding its unlicensed use of  
8 Rambus’s inventions. In a teleconference between the companies on July 21, 2006, Rambus  
9 explained that a number of its patents were infringed by Broadcom’s products and thus Broadcom  
10 was required to take a license from Rambus. On July 24, 2006, Rambus followed up with  
11 correspondence listing dozens of specific examples of Broadcom products using Rambus’s patented  
12 technology, including enterprise networking, broadband communications, and mobile and wireless  
13 products. The companies then scheduled an in-person meeting to take place on August 23, 2006 at  
14 Broadcom’s headquarters in Irvine. However, Broadcom subsequently cancelled the meeting,  
15 stating that it wished to postpone any meeting until after the United States Federal Trade  
16 Commission (the “FTC”) had issued a remedy in *In the Matter of Rambus, Inc.*, FTC Docket No.  
17 9302 (the “FTC Action”), in which the FTC had charged Rambus with anticompetitive conduct with  
18 respect to its behavior as a member of the JEDEC standards-setting organization.

19           47.     On September 15, 2006, Broadcom, together with Freescale Semiconductor, Inc.,  
20 submitted an amicus brief in the FTC Action (the “Amicus Brief”). In the Amicus Brief, Broadcom  
21 admitted that Rambus had patents that read on methods and products implementing at least JEDEC’s  
22 SDRAM, DDR SDRAM, and DDR2 SDRAM standards. Broadcom explained to the FTC that  
23 Broadcom’s products that include memory controllers “themselves comply with the JEDEC  
24 SDRAM standards” because they “must be compatible with the memory they are controlling,” and  
25 therefore are subject to Rambus’s patents. Broadcom alleged that Rambus was acting unlawfully in  
26 attempting to enforce its patents and that Broadcom was a “direct victim” of Rambus’s conduct  
27 because “Rambus already has asserted” patents that read on SDR, DDR, and DDR2 memory  
28 controllers against Broadcom. Broadcom urged the FTC to prohibit Rambus from collecting



1 royalties from companies like Broadcom whose products utilize Rambus's patented technology;  
2 indeed, Broadcom told the FTC that such a remedy "is required" in order to prevent Rambus from  
3 being "allowed to continue to enforce its patents against those that wish to practice the JEDEC  
4 SDRAM standards to manufacture SDRAMs or complementary components such as  
5 microprocessors."

6 48. The FTC issued its final order on February 2, 2007, in which it declined to impose the  
7 "no-enforcement" remedy advocated by Broadcom. On April 22, 2008, the United States Court of  
8 Appeals for the District of Columbia vacated even the lesser remedy the FTC had imposed, holding  
9 that the FTC had failed to demonstrate that Rambus's conduct was unlawful. *Rambus v. Fed. Trade*  
10 *Comm'n*, 522 F.3d 456 (D.C. Cir. 2008). The FTC ultimately dismissed its complaint against  
11 Rambus.

12 49. Rambus is informed and believes, and thereupon alleges, that despite the rejection of  
13 its proposed "no enforcement" remedy, Broadcom continued its knowing infringement of Rambus's  
14 patents even after the FTC's remedy order was issued and later vacated.

15 50. Rambus is informed and believes, and thereupon alleges, that Broadcom's knowing  
16 infringement continued despite further information regarding infringement provided by Rambus in  
17 the course of attempting to negotiate a license with Broadcom that would fairly compensate Rambus  
18 for Broadcom's use of patents owned or exclusively licensed by Rambus. For example, on or about  
19 December 6, 2006, Rambus provided information to Broadcom regarding the infringement of the  
20 '916 Patent and other patents by Broadcom products. On or about December 7, 2009, Rambus  
21 provided information to Broadcom regarding the infringement of the '195 Patent, the '097 Patent,  
22 the '937 Patent, the '916 Patent, the '281 Patent, the '037 Patent, the '020 Patent, the '696 Patent,  
23 the '997 Patent, the '405 Patent, the '353 Patent, and the '109 Patent by Broadcom products. On or  
24 about September 29, 2010, Rambus provided information to Broadcom regarding the infringement  
25 of the '555 Patent, the '474 Patent, the '857 Patent, the '858 Patent, and the '494 Patent by  
26 Broadcom products.

27 51. Rambus is informed and believes, and thereupon alleges, that Broadcom has sold or  
28 offered to sell its Accused Products to third parties who incorporate the Accused Products into their

1 own products. Those third parties in turn have made, used, sold, offered for sale, and/or imported  
2 and/or continue to make, use, sell, offer for sale, and/or import their own products in the United  
3 States. These activities undertaken by the third parties constitute acts of direct infringement of the  
4 Asserted Patents. The memory controllers and peripheral interfaces in Broadcom's Accused  
5 Products are known by Broadcom to be especially made or especially adapted for use in  
6 infringement of the Asserted Patents and are not staple articles or commodities of commerce suitable  
7 for substantial non-infringing use. Broadcom has therefore contributed to and continues to  
8 contribute to the infringement of the Asserted Patents.

9 52. Rambus is informed and believes, and thereupon alleges, that, by its sales and/or  
10 offers for sale of the Accused Products to third parties, Broadcom also has induced and continues to  
11 induce acts by third parties that Broadcom knew or should have known would constitute direct  
12 infringement of the Asserted Patents. Broadcom actively induces infringement of the Asserted  
13 Patents by designing the Accused Products to be capable of infringement and by promoting and  
14 encouraging the use of its products by the third parties in ways that infringe the Asserted Patents.

15 53. Rambus is entitled to recover from Broadcom the actual damages it sustained as a  
16 result of Broadcom's wrongful acts alleged herein under 35 U.S.C. § 284 in an amount to be proven  
17 at trial, together with interest and costs.

18 54. Rambus is informed and believes, and thereupon alleges, that Broadcom's  
19 infringement of the Asserted Patents as set forth herein has been and is willful, deliberate and in  
20 disregard of Rambus's patent rights, and Rambus is therefore entitled to increased damages up to  
21 three times the amount of actual damages and attorneys' fees, pursuant to 35 U.S.C. §§ 284, 285.

22 55. Broadcom's infringement of the Asserted Patents will continue to damage Rambus,  
23 causing irreparable harm for which there is no adequate remedy at law, unless it is enjoined by this  
24 Court.

V.

**CLAIMS FOR RELIEF**

**COUNT I**

**(Patent Infringement of U.S. Patent No. 6,034,918  
Under 35 U.S.C. § 271, *et seq.*)**

56. Rambus incorporates by reference and realleges paragraphs 1 through 55 above as though fully restated herein.

57. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed claims of the '918 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR, DDR-type, and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '918 Patent, and/or has actively induced others to infringe claims of the '918 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT II**

**(Patent Infringement of U.S. Patent No. 6,038,195  
Under 35 U.S.C. § 271, *et seq.*)**

58. Rambus incorporates by reference and realleges paragraphs 1 through 57 above as though fully restated herein.

59. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed claims of the '195 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR, DDR-type, and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '195 Patent, and/or has actively induced others to infringe claims of the '195 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT III**

**(Patent Infringement of U.S. Patent No. 6,260,097  
Under 35 U.S.C. § 271, et. seq.)**

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60. Rambus incorporates by reference and realleges paragraphs 1 through 59 above as though fully restated herein.

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61. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed claims of the '097 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '097 Patent, and/or has actively induced others to infringe claims of the '097 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT IV**

**(Patent Infringement of U.S. Patent No. 6,304,937  
Under 35 U.S.C. § 271, et. seq.)**

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62. Rambus incorporates by reference and realleges paragraphs 1 through 61 above as though fully restated herein.

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63. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed claims of the '937 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '937 Patent, and/or has actively induced others to infringe claims of the '937 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT V**

**(Patent Infringement of U.S. Patent No. 6,426,916  
Under 35 U.S.C. § 271, et. seq.)**

64. Rambus incorporates by reference and realleges paragraphs 1 through 63 above as though fully restated herein.

65. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed claims of the '916 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR, DDR-type, and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '916 Patent, and/or has actively induced others to infringe claims of the '916 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT VI**

**(Patent Infringement of U.S. Patent No. 6,564,281  
Under 35 U.S.C. § 271, et. seq.)**

66. Rambus incorporates by reference and realleges paragraphs 1 through 65 above as though fully restated herein.

67. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed claims of the '281 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR, DDR-type, and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '281 Patent, and/or has actively induced others to infringe claims of the '281 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT VII**

**(Patent Infringement of U.S. Patent No. 6,584,037  
Under 35 U.S.C. § 271, *et. seq.*)**

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68. Rambus incorporates by reference and realleges paragraphs 1 through 67 above as though fully restated herein.

69. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed claims of the '037 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR2, DDR3, and/or GDDR3 memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '037 Patent, and/or has actively induced others to infringe claims of the '037 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT VIII**

**(Patent Infringement of U.S. Patent No. 6,715,020  
Under 35 U.S.C. § 271, *et. seq.*)**

70. Rambus incorporates by reference and realleges paragraphs 1 through 69 above as though fully restated herein.

71. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed claims of the '020 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR, DDR-type, and/or GDDR-type memory controllers, in this district and elsewhere in the United States, and/or (2) has contributed to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '020 Patent, and/or has actively induced others to infringe claims of the '020 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT IX**

**(Patent Infringement of U.S. Patent No. 6,751,696  
Under 35 U.S.C. § 271, et. seq.)**

72. Rambus incorporates by reference and realleges paragraphs 1 through 71 above as though fully restated herein.

73. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed and continues to infringe claims of the '696 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '696 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '696 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT X**

**(Patent Infringement of U.S. Patent No. 7,209,997  
Under 35 U.S.C. § 271, et. seq.)**

74. Rambus incorporates by reference and realleges paragraphs 1 through 73 above as though fully restated herein.

75. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed and continues to infringe claims of the '997 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including SDR, DDR-type, and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States; and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '997 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '997 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT XI**

**(Patent Infringement of U.S. Patent No. 6,470,405  
Under 35 U.S.C. § 271, *et. seq.*)**

76. Rambus incorporates by reference and realleges paragraphs 1 through 75 above as though fully restated herein.

77. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed and continues to infringe claims of the '405 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '405 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '405 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT XII**

**(Patent Infringement of U.S. Patent No. 6,591,353  
Under 35 U.S.C. § 271, *et. seq.*)**

78. Rambus incorporates by reference and realleges paragraphs 1 through 77 above as though fully restated herein.

79. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed and continues to infringe claims of the '353 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '353 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '353 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.



**COUNT XIII**

**(Patent Infringement of U.S. Patent No. 7,287,109  
Under 35 U.S.C. § 271, et. seq.)**

80. Rambus incorporates by reference and realleges paragraphs 1 through 79 above as though fully restated herein.

81. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed and continues to infringe claims of the '109 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including DDR-type and/or GDDR-type memory controllers, and mobile and/or low power versions thereof, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '109 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '109 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT XIV**

**(Patent Infringement of U.S. Patent No. 6,542,555  
Under 35 U.S.C. § 271, et. seq.)**

82. Rambus incorporates by reference and realleges paragraphs 1 through 81 above as though fully restated herein.

83. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed and continues to infringe claims of the '555 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including PCI Express peripheral interfaces, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '555 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '555 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT XV**

**(Patent Infringement of U.S. Patent No. 7,099,404  
Under 35 U.S.C. § 271, et. seq.)**

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84. Rambus incorporates by reference and realleges paragraphs 1 through 83 above as though fully restated herein.

85. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed and continues to infringe claims of the '404 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including PCI Express peripheral interfaces, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '404 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '404 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT XVI**

**(Patent Infringement of U.S. Patent No. 7,580,474  
Under 35 U.S.C. § 271, et. seq.)**

86. Rambus incorporates by reference and realleges paragraphs 1 through 85 above as though fully restated herein.

87. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed and continues to infringe claims of the '474 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including PCI Express peripheral interfaces, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '474 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '474 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**COUNT XVII**

**(Patent Infringement of U.S. Patent No. 7,602,857  
Under 35 U.S.C. § 271, et. seq.)**

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4 88. Rambus incorporates by reference and realleges paragraphs 1 through 87 above as  
5 though fully restated herein.

6 89. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has  
7 infringed and continues to infringe claims of the '857 Patent, literally and/or under the doctrine of  
8 equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or  
9 importing Accused Products consisting of or including PCI Express peripheral interfaces, in this  
10 district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to  
11 the literal infringement and/or infringement under the doctrine of equivalents of claims of the '857  
12 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the  
13 '857 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the  
14 United States.

**COUNT XVIII**

**(Patent Infringement of U.S. Patent No. 7,602,858  
Under 35 U.S.C. § 271, et. seq.)**

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17 90. Rambus incorporates by reference and realleges paragraphs 1 through 89 above as  
18 though fully restated herein.

19 91. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has  
20 infringed and continues to infringe claims of the '858 Patent, literally and/or under the doctrine of  
21 equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or  
22 importing Accused Products consisting of or including PCI Express peripheral interfaces, in this  
23 district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to  
24 the literal infringement and/or infringement under the doctrine of equivalents of claims of the '858  
25 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the  
26 '858 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the  
27 United States.  
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**COUNT XIX**

**(Patent Infringement of U.S. Patent No. 7,715,494  
Under 35 U.S.C. § 271, et. seq.)**

92. Rambus incorporates by reference and realleges paragraphs 1 through 91 above as though fully restated herein.

93. Rambus is informed and believes, and thereupon alleges, that Broadcom: (1) has infringed and continues to infringe claims of the '494 Patent, literally and/or under the doctrine of equivalents, by making, using, offering to sell, selling (directly or through intermediaries), and/or importing Accused Products consisting of or including PCI Express peripheral interfaces, in this district and elsewhere in the United States, and/or (2) has contributed and continues to contribute to the literal infringement and/or infringement under the doctrine of equivalents of claims of the '494 Patent, and/or has actively induced and continues to actively induce others to infringe claims of the '494 Patent, literally and/or under the doctrine of equivalents, in this district and elsewhere in the United States.

**VI.**

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff Rambus asks this Court to enter judgment in its favor against Broadcom and grant the following relief:

- A. An adjudication that Broadcom has infringed and continues to infringe the Asserted Patents as alleged above;
- B. An accounting of all damages sustained by Rambus as a result of Broadcom's acts of infringement of the Asserted Patents;
- C. An award to Rambus of actual damages adequate to compensate Rambus for Broadcom's acts of patent infringement, together with prejudgment and postjudgment interest;
- D. An award to Rambus of enhanced damages, up to and including trebling of Rambus's damages pursuant to 35 U.S.C. § 284 for Broadcom's willful infringement of the Asserted Patents;

1 E. An award of Rambus's costs of suit and reasonable attorneys' fees pursuant to 35  
2 U.S.C. § 285 due to the exceptional nature of this case, or as otherwise permitted by law;

3 F. A grant of a permanent injunction pursuant to 35 U.S.C. § 283, enjoining  
4 Broadcom, and each of its agents, servants, employees, principals, officers, attorneys, successors,  
5 assignees, and all those in active concert or participation with Broadcom, including related  
6 individuals and entities, customers, representatives, OEMs, dealers, and distributors from further acts  
7 of (1) infringement, (2) contributory infringement, and (3) active inducement to infringe with respect  
8 to the claims of the Asserted Patents;

9 G. Any further relief that this Court deems just and proper.

10 **VII.**

11 **JURY DEMAND**

12 Plaintiff Rambus requests a jury trial on all issues triable to a jury in this matter.

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14 Respectfully Submitted,

15 DATED: December 1, 2010

MUNGER, TOLLES & OLSON LLP

17 By:   
18 PETER A. DETRE

19 Attorneys for Plaintiff  
20 RAMBUS INC.