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CASE MANAGEMENT CONFERENCE SET
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DEPARTMENT 212

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF SAN FRANCISCO

RAMBUS INC.,

Plaintiff,

vs.

MICRON TECHNOLOGY, INC., a Delaware corporation; **MICRON SEMICONDUCTOR PRODUCTS, INC.**, an Idaho corporation; **HYNIX SEMICONDUCTOR, INC.**, a Korean corporation; **HYNIX SEMICONDUCTOR AMERICA, INC.**, a California corporation; **SIEMENS AG**, a German corporation; **SIEMENS CORPORATION**, a Delaware corporation; **INFINEON TECHNOLOGIES AG**, a German corporation; **INFINEON TECHNOLOGIES NORTH AMERICA CORPORATION**, a Delaware corporation; and DOES 1 through 50, inclusive,

Defendants.

CASE NO. -04-431105

COMPLAINT FOR:

1. **CONSPIRACY TO RESTRICT OUTPUT AND FIX PRICES IN VIOLATION OF THE CARTWRIGHT ACT (Bus. & Prof. Code §§16720, *et seq.*);**
2. **CONSPIRACY TO MONOPOLIZE IN VIOLATION OF THE CARTWRIGHT ACT (Bus. & Prof. Code §§16720, *et seq.*);**
3. **INTENTIONAL INTERFERENCE WITH PROSPECTIVE ECONOMIC ADVANTAGE; AND**
4. **UNFAIR COMPETITION (Bus. & Prof. Code §§17200, *et seq.*)**

DEMAND FOR JURY TRIAL

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I. INTRODUCTION

1. This case involves concerted and unlawful efforts by a group of the largest semiconductor manufacturers in the world to eliminate competition and stifle innovation in the market for computer memory technology and computer memory chips.

2. The memory technology and chips at issue are known as Dynamic Random Access Memory ("DRAM"). DRAM chips, often simply called "DRAM," make up the main memory of most computers and are also found in many other electronic devices. The current global market for DRAM is enormous. Total sales of DRAM in 2000 exceeded $12 billion in the United States alone, and $28 billion worldwide. By 2002, sales in the United States were $16 billion.

3. Defendants, who collectively wield substantial power in the global market for computer memory technology and chips, combined and conspired in violation of the antitrust laws to boycott Plaintiff Rambus Inc. ("Rambus") and its memory technology, and to restrict the production of, and raise the price for, Rambus-designed memory chips. Defendants did so in an effort to promote the industry-wide adoption of an alternative to Rambus's memory chip design, an alternative that they believed would be more profitable to Defendants, and to drive Rambus-designed chips out of the computer memory market.

4. E-mails and other documents recently obtained by Rambus reveal blatant collusion among Defendants to boycott Rambus, to restrict the production and raise the price of Rambus-designed memory chips, and thereafter to extract supracompetitive prices for other memory chips. For example:

- In 1996, an executive of Defendant Hynix urged another memory chip manufacturers to "educate others and get their agreement to say NO TO RAMBUS . . . ."
- At a 1997 meeting in Japan attended by all Defendants, an executive of Defendant Siemens urged, "No future RB

[Rambus] roadmap. Letting one company control industry is crazy. 0.1% royalty ok, 1-2% ridiculous. RB [Rambus] is not acceptable . . . ."

- At a 1998 meeting, a Hynix executive urged the other Defendants to provide purchasers with artificially inflated price and production projections for Rambus-designed memory chips: "Hyundai has given Rambus [average selling price] projections for end of next year 2-3 times of today's SDRAM prices; they also gave Intel a production projection three times their actual plans — they encourage every DRAM manufacturer to do the same in order to let Intel not generate a Rambus oversupply."
- At a 1999 meeting attended by all Defendants, an agreement was reached among the purported competitors to do "benchmarking" of the "price – cost – availability" of an alternative memory chip.
- In late 2001, after Defendants had succeeded in sabotaging the market success of Rambus-designed memory chips, Micron described Defendants' collusive efforts to raise the price of non-Rambus-designed memory chips: "We will begin price discussions with the [original equipment manufacturers] today. Infineon has already laid the ground work by trying to lift pricing a few weeks ago. . . . The consensus from all suppliers is that if Micron makes the move, all of them will do the same and make it stick."

A. Rambus Develops A Revolutionary Technology

5. In 1992, a "memory bottleneck crisis" was fast approaching because the conventional computer memory technologies available at the time from the

semiconductor industry were not fast enough to meet the data processing demands of the high-speed computers that had become possible as a result of phenomenal advancements in microprocessors. Thus, when Rambus introduced a new technology called "Rambus DRAM" (hereinafter "RDRAM"), its unprecedented data transmission rates, which would help eliminate the memory bottleneck, posed a threat to Defendants. RDRAM was a major advancement over the memory technology used by Defendants and other DRAM designers and manufacturers.

6. By the mid-1990's, it was clear to many key industry participants, including Defendants, that Rambus's technology, or "architecture," was revolutionary, and that RDRAM was a state-of-the-art memory chip that would allow the global computer memory industry to keep pace with rapid improvements in computer microprocessors.

7. The promise of RDRAM technology was confirmed in 1996 when Intel Corporation ("Intel"), the leading maker of central processing units ("CPU") and chipsets, announced that it had chosen Rambus to provide its "next generation" memory technology. By 1998, other major personal computer ("PC") original equipment manufacturers ("OEMs"), including Compaq, Hewlett-Packard Company ("HP"), IBM Corporation ("IBM"), and Dell, Inc. ("Dell"), had followed Intel's lead. Compaq, like Intel, was convinced in 1998 that Rambus's technology and the RDRAM design demonstrated that "Rambus is the clear next generation memory."

B. Defendants Respond To RDRAM By Jointly Engaging In Illegal Acts To Stop Rambus

8. The combined reaction to RDRAM by the long-entrenched semiconductor industry, spearheaded by Defendants, was jointly to create and engage in a boycott of Rambus. This was possible because Defendants knew that Rambus did not manufacture its own memory chips but licensed its technology to chip manufacturers, such as Defendants. Evidence recently uncovered by Rambus

shows that, beginning in at least 1996 and continuing through the present, Defendants collectively manipulated and controlled the total quantity of RDRAM produced.

9. Defendants' express goal was to eliminate Rambus or, at least, to cause Rambus to fail in the computer memory market. Defendants sought not only to prevent RDRAM from becoming the state-of-the-art computer memory chip-technology, but also to ensure the market-wide adoption of Defendants' preferred alternative technologies that would enable them to maximize their profits at the expense of consumers who would otherwise have benefited from competition.

10. To advance their collective efforts against Rambus, Defendants agreed to further their joint or conspiratorial objectives, which they accomplished by, among other actions:

(a) Artificially and jointly restricting production of RDRAM;

(b) Overstating their planned RDRAM production volumes;

(c) Overstating their RDRAM production costs;

(d) Agreeing to be the "last to market" with RDRAM and to not "cost reduce" their RDRAM production;

(e) Acquiring and cutting back or halting the efforts of competitors to produce RDRAM chips;

(f) Breaching their RDRAM production commitments to computer memory chip purchasers such as Dell and Compaq;

(g) Inflating the price of Rambus-designed computer memory chips, and shifting resources to the development and production of other memory technologies, such as SDRAM ("synchronous dynamic access random memory") and DDR SDRAM ("double data-rate SDRAM"); and

(h) Misstating the availability of purportedly "free" or "open standard" alternatives to RDRAM and Rambus technology, when Defendants knew that the memory chip alternatives that Defendants were

promoting either were "vapor ware" (device designs that are not ready for production) or likely carried royalty claims, or both.

11. The conspiracy among Defendants and others was formed and acted upon, in part, through the use of industry organizations whose memberships comprised competitors and industry-related enterprises, including Defendants. These organizations enabled Defendants – purported competitors of each other – to plot against Rambus and to communicate and coordinate their wrongful conduct among themselves in violation of antitrust, unfair competition, and other state laws.

C. Defendants' Illegal Acts Have Harmed Rambus And Consumers

12. As a direct result of Defendants' unlawful combination and conspiracy, Defendants' alternative memory chip designs have become the *de facto* industry standards, and Rambus's memory chip design has been relegated to a niche role. Not only have Defendants deprived Rambus of the opportunity to compete in an open and fair marketplace, but they have also deprived Rambus of the royalties that it would have earned in such a market and deprived consumers of a superior alternative memory technology at competitive prices. Moreover, after having effectively eliminated Rambus's memory chip design as a competing mainstream technology, Defendants and others were able to – and did – charge supracompetitive prices for their alternative design chips.

II. JURISDICTION AND VENUE

13. Defendants, and each of them, are subject to the jurisdiction of this Court by virtue of their business dealings and transactions in California, by having caused injuries within the City and County of San Francisco and throughout California through their acts or omissions, and by their violation of California Business & Professions Code §§ 16720, *et seq.* Plaintiff's damages are well in excess of the jurisdictional minimum of this Court.

14. This Court has subject matter jurisdiction over all causes of action asserted herein pursuant to the California Constitution, Article VI, Section 10.

Plaintiff's claims for violations of Business & Professions Code §§ 16720, *et seq.*, arise exclusively under the laws of the State of California, do not arise under federal law, are not preempted by federal law, do not challenge conduct within any federal agency's exclusive domain, and adjudication thereof has not been statutorily assigned to any other court or jurisdiction.

15. Each Defendant has sufficient minimum contacts within California and intentionally avails itself of the California market either through the licensing, manufacture, distribution, sale and/or trade of computer memory technology and chips in the State of California, or by having an office or facility either located in California or utilized to facilitate the licensing, distribution, sale and/or trade of computer memory technology and chips in the State of California, so as to render the exercise of jurisdiction over each Defendant by the California courts consistent with traditional notions of fair play and substantial justice.

16. Venue is proper in this county because the liability of defendants arose, at least in part, in this county; in addition, Rambus is informed and believes that Micron Semiconductor Products, Inc., and Siemens Corporation are foreign corporations that have not registered a principal place of business in California.

17. Each defendant does business in and through the City and County of San Francisco.

III. PARTIES

A. Plaintiff

18. Rambus Inc. ("Rambus") is a public corporation with its principal place of business in Los Altos, California.

19. Since its founding, Rambus has been at the leading edge in the design, development, marketing, and licensing of state-of-the art memory and logic interface technologies that are used in computers, consumer electronics, and network systems.

20. Rambus licenses its technology to various consumers, including semiconductor manufacturers that produce and sell memory and logic chips which incorporate Rambus technology and designs.

B. Defendants

1. Micron Technology, Inc.

21. Defendant Micron Technology, Inc. ("Micron Technology") is a semiconductor company that manufactures, sells, and distributes computer memory chips throughout the United States, including California.

2. Micron Semiconductor Products, Inc.

22. Defendant Micron Semiconductor Products, Inc. ("Micron Semiconductor") is a wholly-owned subsidiary of Micron Technology. Micron Semiconductor manufactures DRAM chips and assembles them into memory modules for the global computer industry. Currently, Micron Semiconductor is the only DRAM manufacturer headquartered in the United States. Micron Semiconductor is one of the top suppliers of memory to major OEMs, including Compaq, Gateway, Hewlett-Packard, and IBM.

23. Micron Technology and Micron Semiconductor are hereinafter collectively referred to as "Micron." Micron is currently the world's second leading supplier of DRAM memory chips.

3. Hynix Semiconductor, Inc.

24. Defendant Hynix Semiconductor, Inc. ("Hynix Korea") is a Korean company that maintains its headquarters in Seoul, South Korea. At all times alleged herein, Hynix Korea manufactured, sold, and distributed memory chips throughout the world, including the United States and California. Prior to 2001, Hynix Korea was known as Hyundai Electronics Industries Co., Ltd. ("Hyundai").

4. Hynix Semiconductor America, Inc.

25. Defendant Hynix Semiconductor America, Inc. ("Hynix America") is a California corporation, located in San Jose, California. Hynix America is a

wholly-owned subsidiary of Hynix Korea. At all times alleged herein, Hynix America sold and distributed memory chips throughout the United States, including California. Hynix Korea and Hynix America, collectively, are currently the world's fourth-largest supplier of DRAM memory chips.

5. Siemens/Infineon

26. Defendant Siemens AG ("Siemens AG") is a German corporation that maintains its headquarters in Munich, Germany.

27. Defendant Siemens Corporation ("Siemens Corp.") is a Delaware corporation, with corporate offices in New York, New York. Siemens Corp. is the wholly-owned and controlled subsidiary of Siemens AG. At all relevant times, Siemens Corp. manufactured, sold and distributed memory chips throughout the world, including the United States and California. Siemens AG and Siemens Corp. are hereinafter collectively referred to as "Siemens."

28. Defendant Infineon Technologies AG ("Infineon AG") is a German corporation, which maintains its headquarters in Munich, Germany. Infineon AG was formed in April 1999, when Siemens AG spun off Siemens Semiconductors into a separate entity. Infineon AG was initially operated as a wholly-owned subsidiary of Siemens AG.

29. Infineon AG offers semiconductor and systems solutions for applications including those for the wired and wireless communications markets, for security systems, and memory products. At all times alleged herein, Infineon AG had its principal place of business in California and manufactured, sold and distributed memory chips throughout the world, including the United States and California.

30. Defendant Infineon Technologies North America Corporation ("Infineon Technologies"), is a Delaware corporation that maintains offices in San Jose, California. Infineon Technologies is a wholly-owned and controlled subsidiary of Infineon AG. At all times alleged herein, Infineon Technologies sold

and distributed memory chips throughout the United States, including California.

31. Infineon AG and Infineon Technologies are hereinafter collectively referred to as "Infineon." Until December 2001, Infineon was controlled by Defendant Siemens, and Siemens continues to maintain a substantial ownership interest in Infineon. Infineon has a license to manufacture RDRAM memory chips and other devices, which license was entered into as a 1999 amendment to a licensing agreement between Rambus and Siemens. Infineon is the third largest supplier of DRAM chips in the world.

6. Doe Defendants

32. The true names and capacities, whether individual, corporate, associate or otherwise of Defendants Does 1 through 50, inclusive, are unknown to Plaintiff who therefore sues said Defendants by such fictitious names pursuant to Code of Civil Procedure § 474. Plaintiff further alleges that each of said fictitious Doe Defendants is in some manner responsible for the acts and occurrences hereinafter set forth. Plaintiff will amend this Complaint to show their true names and capacities when the same are ascertained, as well as the manner in which each fictitious Defendant is responsible for the damages sustained by Plaintiff.

7. Agents And Co-Conspirators

33. At all relevant times, each Defendant was and is the agent of each of the remaining Defendants and, in doing the acts alleged herein, was acting within the course and scope of such agency. Each Defendant ratified and/or authorized the wrongful acts of each of the Defendants.

34. Defendants, and each of them, are individually sued as participants and as aiders and abettors in the unlawful acts, plans, schemes, and transactions alleged in this Complaint.

35. Defendants, and each of them, have participated as members of the conspiracy alleged herein, acted in furtherance of it, aided and assisted in carrying

out its purposes, and/or performed acts and made statements in furtherance of the conspiracy.

8. Unnamed Participants

36. Numerous other individuals and entities participated actively during the course and scope of and in furtherance of the conspiracy and other wrongful conduct alleged herein. The individuals and entities acted in concert by joint ventures and by acting as agents for principals, in order to advance the objectives of the conspiracy. The acts were intended to promote the conspiratorial objectives within the ambit of California Evidence Code § 1223.

IV. BACKGROUND

A. History Of DRAM In Computer Memory Technology

37. During the 1970s and 1980s, innovations in microprocessor technology produced faster computers, outpacing the relatively minor improvement in the speed of memory chips. Had this trend continued, the result would have been that computers could process data faster, but the main memory could not transmit the data to the CPU at a rate sufficient to take advantage of the increased processing power. This created what came to be known in the information technology industry as the impending "memory bottleneck crisis."

38. Efforts to address the memory bottleneck prompted the development of new DRAM[1] designs that were "synchronous," such as RDRAM and SDRAM.

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[1] DRAM is one of a number of components that make up a typical computer. The function of the DRAM is to store digital information temporarily for quick retrieval by various parts of the computer, such as the CPU. Like the CPU and the related "chipset" (which, in many computers, consists of one or more semiconductor chips that provide interfaces between the CPU and other parts of the computer, such as the memory), DRAM is made up of millions of individual circuit elements, such as transistors, which are formed in a single chip of semiconductor material, resulting in an "integrated circuit," commonly called a "chip." Unlike slower but more permanent memory storage devices, such as hard drives and CD-ROMs, DRAM memory chips generally retain their information only as long as the computer's power is kept on.

These new DRAM designs enabled faster communication than earlier "asynchronous" DRAMs, in part because memory functions were referenced to a "system clock."

39. DRAM is a necessary component or "essential input" in a variety of electronic products, including personal computers, computer workstations and computer servers. It is also an essential input in other types of electronic devices, such as fax machines, printers, network equipment, digital video recorders, video game equipment, and personal digital assistants.

40. The architecture of DRAM chips, as with most computer technology, was improved and revised in successive generations of designs over the years. Driving these improvements was not only the need for additional storage capacity, but also the need for memory chips to function at greater speeds in order to keep pace with other computer components. Until the development of Rambus's technology and the RDRAM design, however, DRAMs still could not transmit data at a rate fast enough to keep pace with the existing microprocessor technology.

B. Rambus Solves The Memory Bottleneck Crisis

41. The earliest innovators successfully to challenge the memory bottleneck crisis were Mike Farmwald and Mark Horowitz, the co-founders of Rambus. At the time they decided to tackle the impending memory bottleneck crisis in the late 1980s, Dr. Farmwald was an associate professor of Electrical and Computer Engineering at the University of Illinois. Since co-founding Rambus in 1990, he has served as a director, and was the Vice President and Chief Scientist from 1990 to 1993. At the time he co-founded Rambus, Dr. Horowitz was teaching at Stanford where he is currently a professor of Electrical Engineering and Computer Science. He also became a director of Rambus in 1990, served as Vice President from 1990 until 1994, and continues to serve in a part-time capacity on the technical staff.

42. The efforts of Drs. Farmwald and Horowitz resulted in the development of a new, state-of-the art DRAM technology or "architecture," known as "Rambus DRAM," or "RDRAM." RDRAM was a revolutionary improvement on prior memory designs, not only because it used a synchronous design, but also because it employed several other unique features.

43. On April 18, 1990, Rambus filed its first patent application, Serial No. 07/510,898 (the "'898 application"), containing a 62-page written description and 15 drawings describing many of Rambus's inventions that were also used in RDRAM. Rambus has since filed various amended, divisional, and continuation patent applications that relate back to the original '898 application. Rambus's technology was revolutionary because it was significantly faster than the existing DRAM technology.

C. Rambus Licenses Its Memory Technology

44. Rambus is based on a licensing business model. Rambus revealed its business model to the semiconductor industry in scores of briefings and formally announced it to the public and semiconductor industry in March 1992, when Rambus hosted a "coming out" party in Palo Alto, California for the public, press and industry. In a handout disseminated at that event, Rambus announced that it will be "fully protecting its intellectual property rights of our technology by filing basic, broad patents in all major industrial nations around the world."

45. RDRAM technology has been licensed by Rambus to semiconductor manufacturers, for a reasonable royalty, to enable them to incorporate the RDRAM technology into their respective computer memory chips for sale to OEMs or other manufacturing or retail segments of the computer marketplace.

46. By offering a reasonable license to use its state-of-the art technology, Rambus sought to make that technology widely available in the industry. Rambus believed that, through its reasonable licenses, Rambus could induce manufacturers to produce and supply RDRAM computer chips to a willing market; and that, by

creating high-volume and multiple suppliers, Rambus could achieve its goals of bringing down the price of RDRAM technology, ensuring compatibility of the product within the marketplace, and ensuring consistent performance. From 1992 through 1995, Rambus entered into licensing agreements for the development and production of RDRAM chips with a number of the world's leading DRAM manufacturers, including Samsung, Hitachi, NEC, Toshiba, LG Semicon (formerly Goldstar), and Oki. Nintendo also chose Rambus's RDRAM for its Nintendo 64 game system in 1994, which was an industry milestone, marking the first time that Rambus's memory technology would be used in a major consumer product. By October 1995, Rambus had the support of six major vendors to develop a 64 MB RDRAM chip, including four of the world's largest DRAM manufacturers.

D. Intel Chooses Rambus's RDRAM As The Memory Technology Of The Future

47. The promise of RDRAM technology was confirmed when, in December 1996, leading CPU and chipset maker Intel announced that it had selected Rambus's design — RDRAM, or, more specifically, the third generation of RDRAM that became known as "Direct RDRAM" — as its choice for its "next generation" memory technology. Intel believed that conventional DRAM technologies would not keep pace with advances in the speed and design of CPUs, and that RDRAM would perform better than other alternative memory designs. The Intel deal marked a benchmark event for Rambus, in part because Drs. Farmwald and Horowitz viewed the CPU and chipset market as crucial to Rambus's credibility and survival.

48. Because of Intel's leadership position in the CPU and chipset industry, Intel's selection of RDRAM demonstrated to Defendants that the RDRAM technology would become the leading DRAM technology absent a coordinated effort to prevent it from doing so. Rather than competing legitimately with

Rambus, Defendants joined together in an unlawful conspiracy to sabotage Rambus and RDRAM.

E. Defendants Unlawful Agreement and Overt Acts to Sabotage Rambus and Its Revolutionary Memory Technology

49. Defendants believed that, if Rambus were successful in marketing RDRAM, they would lose control of the rate, method and other facets of technological developments in the DRAM industry and would be forced to compete on price. Accordingly, Defendants believed that they would make more money and retain their entrenched and dominant positions in the computer memory industry if they could prevent Rambus from being successful in launching RDRAM.

50. Defendants knew that if they acted independently and engaged in lawful competition they would not be able to thwart the success of RDRAM and Rambus. Accordingly, they instead agreed to work together, through unlawful means, to sabotage RDRAM and Rambus.

51. The evidence of Defendants' illegal collusion and implementation of the scheme by and between themselves and others is extensive and documented in recently discovered e-mails, meeting minutes, notes and other written documents. The documents show that, based upon their agreement, Defendants worked together over many years to achieve their goals: to make RDRAM an unattractive choice for their own customers and unattractive to Intel; to restrict the total production of RDRAM, which they controlled, so that RDRAM would be both scarce and expensive; and, once having succeeded in sabotaging RDRAM, to raise prices of SDRAM and DDR to benefit from their conspiracy. Defendants implemented their agreement by restricting the quantity of RDRAM that they manufactured, delaying manufacture of RDRAM, and shifting resources to the development and production of other alternative memory technologies, such as SDRAM and DDR—all in an effort to continue to dictate future DRAM designs.

1. Defendants Implement Their Unlawful Scheme Through the SynchLink Consortium and Its Successors

52. The JEDEC Solid State Technology Association (originally known as the Joint Electron Device Engineering Council ("JEDEC")), including its JC-42.3 Subcommittee on RAM Devices ("the JEDEC Subcommittee"), is an industry association that comprises various memory users, designers and manufacturers.

53. In 1991, the JEDEC Subcommittee began work on SDRAM and published the first SDRAM standard in November 1993. Like RDRAM, SDRAM used a synchronous design; SDRAM, however, had only some of the innovative, high-end features that were included in the Rambus design. Accordingly, SDRAM's performance, while an improvement over the conventional, asynchronous DRAM, was inferior to that of RDRAM. As the CPU's demands for data continued to increase, it became clear that SDRAM technology could no longer be adapted to avoid future "bottlenecks" in computer performance.

54. In September 1995, Micron and Hynix (then Hyundai) formed the SynchLink Consortium. Other early members of the SynchLink Consortium included Samsung, Fujitsu, Mitsubishi, Apple Computer, and Texas Instruments (whose DRAM operations have since been acquired by Micron). The SynchLink Consortium was joined later by Siemens (whose DRAM operations were spun off to Infineon), along with Oki, Hitachi (whose DRAM operations are now operated by Elpida, a joint venture of NEC and Hitachi), and Toshiba (whose U.S.-based DRAM manufacturing facility has since been acquired by Micron). The SynchLink Consortium was incorporated as SLDRAM, Inc. in January 1998. A principal purpose of incorporation of the SynchLink Consortium was to provide Defendants with what they mistakenly called "an antitrust shield."

55. With knowledge of the technological superiority of RDRAM over SDRAM, Defendants needed to devise ways to prevent RDRAM technology from becoming the industry standard. Thus, Defendants worked on alternative

technologies to RDRAM including DDR SDRAM and "SynchLink" DRAM (also known as "SyncLink" DRAM or "SLDRAM").

56. Defendants collaborated in their efforts to develop these alternative designs to RDRAM, through their participation in the SynchLink Consortium and subsequent associations, in order to control the path of technological development in the DRAM industry and to prevent the acceptance of RDRAM as the *de facto* industry standard.

57. Defendants began exploiting the SynchLink Consortium as early as 1996 to stop Rambus and restrict competition. In addition to the SynchLink Consortium and its successor, SLDRAM, Inc., Defendants began using other organizations, including M11 (in numerous manifestations) and Advanced Memory International, Inc. (also known as "AMI2"), in part as mechanisms through which Defendants and others developed joint strategies to prevent RDRAM from becoming the next *de facto* industry standard.

58. On September 26, 1996, Farhad Tabrizi, a Hynix executive and Chairman of the SynchLink Consortium, sent an email to Hitachi, which was also to be read by the other DRAM manufacturers, expressing concern that Intel's choice of Rambus "would turn DRAM suppliers into a foundry for Intel's desired memories at their choice." (HY-FTC 002932 [RX-0777]).[2] The e-mail urged Hitachi and the other DRAM manufacturers to "educate others and get their agreement to say 'NO TO RAMBUS AND NO TO INTEL DOMINATION.'" (*Id.* (capital letters in original).

59. That Rambus was a perceived threat was a topic of much discussion by Defendants at meetings where they agreed on the need for a united strategy against Rambus. For example, minutes of the December 3, 1996 meeting of the SynchLink Consortium in Santa Clara, California, attended by representatives of Micron and Hynix stated that, "[m]any suppliers are paranoid over the prospect of a single

[2] All citations are to documents produced in the Federal Trade Commission proceedings in *In the Matter of Rambus Inc., a corporation*, Docket No. 9302.

customer, e.g., Intel, having control of market. We can't resist such a possibility individually. We need some united strategy." (HR 905_136815 [RX-808]).

60. A month later, Defendants met again and reaffirmed their intent to stop Rambus. At the January 10, 1997 SynchLink Consortium meeting in Tokyo, Japan, attended by representatives of all Defendants, according to the minutes, a representative of Hynix (then Hyundai) stated that it would be a "dooms day scenario for DRAM business: If Intel/Rambus allowed to control all IP, DRAM suppliers will be nothing more than foundries, with profits going into Rintel's [Rambus + Intel] pockets." (HPW0000928.2 [RX-850]). At the same meeting, according to the minutes, Siemens's vice president and General Manager of its Memory Products Division, Andreas Von Zitzewitz, stated that this "doomsday scenario is not paranoid" and "How can we with 1000's of engineers let ourselves be controlled by Rambus? It is not acceptable." (HPW0000928.3 [RX-850]). At an executive meeting of the SynchLink Consortium on the same day in Yokohama, Japan, slides were shown stating "ALL DRAM COMPANIES WILL BECOME FOUNDRIES for a single source CPU manufacturer." (MEUS8399) [RX 849].

61. Hynix's minutes of the January 14-15, 1997 meeting of the SynchLink Consortium in Santa Clara, California shows that, by then, Defendants had already affirmed their collective desire to undermine the success of Rambus: "Siemens was eloquent. No future RB [Rambus] roadmap. Letting one company control industry is crazy. 0.1% royalty ok, 1-2% ridiculous. RB [Rambus] not acceptable, we should address the PC market also." (HR 905_136982 [RX-855]).

62. Terry Lee of Micron also urged consortium members to work together in this regard: "We need a real organization now, can't have everyone involved in rethinking every decision anymore. Have to act like a commercial company now." (HR 905_136983 [RX-855]).

63. In April 1997, Defendants discouraged other memory manufacturers from publicly stating the truth, urged them to withhold criticism of the SynchLink

Consortium's support for DDR SDRAM and/or SLDRAM, and admitted that they were keeping information from customers to benefit themselves at the expense of Rambus. Micron's Terry Lee urged Micron's purported competitor Fujitsu to stand firm with the "team" against Rambus: "[W]e have heard even more disturbing information. From several customers, we have heard that Fujitsu has begun to speak negatively about the possibilities of SLDRAM. We have heard that Fujitsu feels that SLDRAM has taken a different direction, and that they do not support SLDRAM strongly. We are rather confused about the wisdom of such statements. We don't believe that such dissention amongst suppliers is in the best interest of the industry, considering the current situation with Intel-Rambus. We feel that DDR has some worse problems than SLDRAM right now, but we have not yet shared this opinion with customers." And "Only Rambus would benefit in such a situation. We do not feel that it is wise to have DDR compete with SLDRAM. Rather, both efforts should be a team to compete against proprietary [i.e. Rambus] solutions." (MR0077686 [RX-916]).

64. To further advance efforts to undermine Rambus, and in an attempt to protect themselves from potential liability for their conduct, at a SynchLink Consortium meeting in Japan on September 17-19, 1997, the members decided to "[C]hange status from Consortium to Company" due to possible "liability" and to "prevent access of members patents by RAMBUS." Defendants also reiterated their desire to "achieve common set of messages for member's spokesmen." (I 183322 [RX-1011]).

65. Jeff Mailloux, a senior Micron executive, subsequently wrote Farhad Tabrizi, his counterpart at Hyundai (now Hynix), stating, "I am tired of Intel or Rambus giving my customers cost estimates, so we called Anthony [Cataldo, author of an article in *EE Times*] and I talked to him for about an hour and gave him Micron's story on it and encouraged him to call other suppliers. In short I told him that at any density, and any process that is available in 1999, RDRAM is at least

30% cost adder for Micron. Just giving you a heads up and would encourage you to call him and give Hyundai's view on it." (HR 905 126360 [RX-1104]). The e-mail continued: "Here is what I basically told him, if you forward the article to anybody else, remove this part." After summarizing his conversation, Mailloux concluded his e-mail stating: "Anyhow, please visit me if I end up in jail, but felt it was important and timely enough to get our message out there that 5% is not realistic in our opinion." (*Id.*).

66. Defendants would not allow participants to digress from the conspiracy. For example, concerned that Hynix (then Hyundai) was wavering, on April 11, 1998, Micron's Mailloux sent Tabrizi at Hynix an e-mail asking if "Hyundai still on board?" (HR 905_114430-31 [RX-1155]). The e-mail expressed displeasure with an article written by Hyundai vice president Mark Ellsberry for a trade publication in which he gave favorable opinions about RDRAM and referred to DDR SDRAM as a "long shot" and referred to its "slow and tedious creation" that had been marred by the "self-interest of various vendors." (*Id.*) The e-mail expressed a hope that Hyundai "has not caved in to the 'dark side'," *i.e.,* Rambus. (*Id.*). Hyundai thus had to reaffirm that it was still "on board" and continued to participate in the conspiracy.

67. On April 13, 1998, representatives of Defendants Micron, Hynix, and Siemens [Infineon] attended an "important and exclusive" seminar presented by a consultant named Bert McComas ("McComas") from InQuest Market Research ("InQuest"), which focused on "Rambus strategies for DRAM manufacturers." (HR 905_127819-20 [RX-1138]); (I 220094-128 [RX-1482]). While Mr. McComas was held out as an independent analyst for the industry, he was in fact biased in favor of Defendants and against Rambus and RDRAM. Mr. McComas's presentation addressed "possible strategies" for responding to Rambus by the DRAM manufacturers, including efforts to "[t]ape out but do not fully productize or cost reduce DRDRAM," "[f]ocus instead on PC100/133 [SDRAM] deployment and

cost reduction," and "[c]ampaign for future non-DRDRAM commodity standards such as SLDRAM or DDR," and "[r]esist popular deployment of DRDRAM." (I 220127-28 [RX-1482]).

68. During the SLDRAM, Inc. Executive Meeting held in Monterey, California, which occurred in June, 1998, Defendants discussed Mr. McComas's proposal "to collect each DRAM vendor's production plan of Rambus DRAM's for the next year, in order to check whether we are facing an oversupply situation." (INF-FTC 014485 and 014488 [RX-1208]). On June 25, 1998, Defendants and a jointly-retained public relations firm discussed their need for an "active response to Rambus." (INF-FTC 14485-14486 [RX-1208]). During the same meeting, Mr. McComas made a presentation to address "SLDRAM as [a] response to the strategic threat of Intel/Rambus." (INF-FTC 014485 [RX-1208]). His presentation also warned that "SLDRAM should start action now" because "Intel will attempt to control supply and demand for DRDRAM." (*Id.*) As a result, Mr. McComas proposed that "every DRAM vendor sends the Rambus production plan for the next year in order to crosscheck whether Intel has managed to generate an oversupply situation." (*Id.*). One of the "tactical problems" faced by the DRAM manufacturers also discussed was the need to "manage price competition, profitability." (*Id.*)

69. Slides presented at the June 1998 SLDRAM, Inc. Executive Meeting also exhorted DRAM executives that, although they were competitors, they should make use of their joint ability to "influence the outcome" by "communicat[ing], cooperat[ing], and creat[ing] alternatives." (INF-FTC 014556-58 [RX-1185]). Other slides presented at the same meeting reminded DRAM executives that "SLDRAM will be as powerful as we make it." (INF-FTC 014561 [RX-1185]).

70. Defendants' agreement to conspire against Rambus continued to be affirmed over time. At the June 25, 1998 SLDRAM Executive Summit, Micron mentioned negotiations with Nintendo regarding the desire to "kick Rambus out of

this design." (INF-FTC 14486 [RX-1208]). Micron and Siemens executives also discussed their desire for the competitors to establish "VP level contacts regarding a possible strategic alliance." (*Id.*)

2. Defendants Misrepresent RDRAM Production To Control The Market

71. To further their efforts to stop Rambus, Defendants fabricated and/or greatly exaggerated "problems" with RDRAM production and overstated supply and cost for RDRAM in order to restrict consumer access to Rambus's technology. During the September 22, 1998 SLDRAM meeting, Hyundai observed that any "problems" with producing RDRAM could provide an opportunity for promoting Defendants' preferred alternative technologies. This was prompted by a comment by Mr. Tabrizi that was memorialized in meeting notes: "in next 6 months it will become clear how easy it is to mass produce Rambus. If easy, AMD [the No. 2 CPU-maker] will also go Rambus. If problems, they need our solution." (*Id.* at INF-FTC 014431 [RX-1275]). Thus, to prevent consumers from realizing how easy the mass production of RDRAM really was, Defendants agreed to and did provide false and misleading information to their customers about purported problems with RDRAM production.

72. Defendants implemented their scheme in part by intentionally overstating their production volumes. For example, an October 18, 1998 internal Hyundai email stated: "From HEA's perspective, we can overstate our Direct Rambus production so Intel can feel we are more aggressive on our ramp up." (HR 905_122741 [RX-1295]). Hyundai did, in fact, significantly overstate its production volumes to Intel and urged other DRAM manufacturers to do the same.

73. Defendants furthered their conspiracy by misleading Intel about the price and supply of RDRAM. For example, notes memorializing a meeting held at Micron's headquarters in Boise, Idaho in or around October 1998 stated that Mr. Tabrizi of Hynix reported that his company (then Hyundai) had presented Intel

with inflated projected prices for RDRAM: "Hyundai has given Rambus ASP projections for end of next year of 2-3 times of today's SDRAM prices; they also gave Intel a production projection of three times their actual plans—they encourage every DRAM manufacturer to do the same in order to let Intel not generate a Rambus oversupply." (INF-FTC 014424 [RX-2192]).

74. On October 20, 1998, representatives of Defendants Siemens, Micron, and Hyundai and other SLDRAM members met and discussed joint research on a DRAM interface. (INF-FTC 014420 [RX-2191]). According to Siemens's notes from that meeting, however, Defendants' additional purpose for the meeting, which they kept secret from the public, was to agree on a "common roadmap" to resolve the "current uncertainty about the supply situation." (*Id.*)

75. The exchange of projected supply data among DRAM vendors was also proposed by Mr. McComas in an August 15, 1998 email to Mr. Tabrizi, in which he stated that: "[D]uring the critical ramp-up phase of Direct Rambus, DRAM vendors will need a constant flow of information to help make wise decisions and to walk the fine line between a pleasant shortage and a disastrous over-supply." (HR 905_108444 [RX-1232]). Mr. McComas stated that his proposed "Rambus Supply/Demand Forecast" service would "be used to derive a consensus estimate that will be released to all participants." (*Id.*) At the beginning of the email Mr. McComas warned: "Please keep our discussion completely confidential. If this is seen as a SLDRAM project, it will fail." (*Id.*).

3. Defendants' Conspiracy Against Rambus Begins To Succeed

76. On December 22, 1998, shortly after Intel announced that it would not rely solely on Direct RDRAM in future roadmaps and that Hynix (Hyundai) was engaged by Intel to help design computer memory successors to RDRAM, Hynix's Tabrizi wrote in an internal e-mail to Hynix Senior Executive Vice President Dr. Oh, "P.S.: I am no longer the head of SLDRAM Inc., as of 12/17/98, and I

believe the organization will die slowly from here on. Job accomplished." (HR 905_120713 [RX-1361]).

77. SLDRAM Inc. then gave up any further efforts to develop its vaporware SLDRAM design, electing instead to become "Advanced Memory International, Inc.," or "AMI2", which Defendants formed in large part to continue to attack Rambus and to coordinate their supply and pricing decisions. AMI2 was headed by Desi Rhoden, who was also the chairman of JEDEC.

78. The conspiracy continued in 1999, building on its partial success in 1998. An email distributing a January 1999 presentation by Mr. Rhoden regarding the formation of AMI2 to representatives of Micron, Hynix, and Siemens stated that AMI2 was being formed because of the recognition that "[i]n the DRAM industry, we are clearly stronger together than we are individually." (HR 905_120243A [RX-1373A]). The presentation attached to the e-mail stated that the purposes for forming AMI2 included a "new focus" including "[c]o-ordinat[ing] instead of developing new technology" and at the same time being able to "[i]ndemnify member companies from anti-trust while still providing a close working relationship for all." (HR 905_120245A [RX-1373A]). In reorganizing their efforts from SLDRAM, Inc. to AMI2, Defendants' goal was to accomplish "industry enablement" and to "[s]trive for coordination." (BP-FTC 0001576 [RX-1376]).

79. On February 22, 1999, representatives of Defendants attended a meeting of a shadowy organization of manufacturers known as "M14." An agreement was reached at the meeting that the group of purported competitors needed to do "benchmarking" of the "price – cost – availability" of DDR SDRAM. (IBM/2057477 [RX-1390].)

80. Colluding out of range of the antitrust radar was the topic of another presentation in early 1999 regarding the formation of AMI2, which was described as "a proposal for our future" under which the DRAM industry would "work[ ]

together for a more profitable future." (TAEC0057752 [RX-2284]). That presentation also discussed "marketing coordination" as one of AMI2's "specific focus areas," and stated that "M11" and "M14," which had provided the "marketing coordination" function, "should be folded into the corporation, if for no other reason than to provide antitrust protection." (TAEC0057753 [RX-2284]). The presentation also identified "market research" as "a key piece of market coordination" and that "together we can provide real fact based market data through the corporation." (*Id.*)

81. Defendants reaffirmed their need in 1999 to continue the conspiracy because Rambus's ability to achieve RDRAM marketplace success remained a threat to Defendants. On February 17, 1999, for example, a Hynix executive sent a Micron executive an e-mail regarding published projections of a 50% market share for Rambus's Direct RDRAM by 2001 and Micron's projected supply of RDRAM. (HR 905_110601 [RX-1386]). The published survey indicated that Micron would supply approximately 18% of RDRAMs made in 1999. (*Id.*) The Hynix executive voiced concern that Micron's projected production was so high. (*Id.*)

82. On March 30, 1999, Defendants and other DRAM manufacturers exchanged among themselves a "market forecast" for the DRAM industry through 2001, which showed increasing market shares for DDR SDRAM and decreasing market shares for RDRAM throughout that time period. (HR 905_128913-14 [RX-1423]).

83. During this same time, Defendants reacted harshly to Samsung's support for Rambus. In April 1999, Samsung announced that it was beginning customer qualifications for Direct RDRAM. In an internal April 26, 1999 email forwarding the article in which the announcement was reported, a Micron employee wrote: "Another article showing that Samsung has broken ranks with the other suppliers and sold their soul to the devil..." (MU00094414 [RX-1444]). One response to this email from another Micron employee was: "These guys are big

trouble for us all. If this thing gets into an oversupply mode with RDRAM things could get ugly. Bob [Donnelly, a Micron Vice President] and Jeff [Mailloux, a Micron marketing manager], do these idiots (Samsung in this case) understand what the Rambus/Intel biz-model will do to our autonomy??!!" (*Id.*)

4. Defendants' Conspiracy To "Kill Rambus" Continues

84. In February 2000 at the Intel Development Forum, Intel reaffirmed its commitment to use Rambus memory. On February 21, 2000, Intel also announced that it had signed an agreement to invest $250 million in Infineon, and that Intel and Infineon had agreed to cooperate in the production of DRAM memory products, including Infineon's production of RDRAM memory technology to help the market for RDRAM grow.

85. In May and/or June 2000, Defendants had discussions with Dell about price and supply. Knowing that they were beginning to have some success in stopping the market for RDRAM, Defendants informed Dell that they were unwilling to increase the supply or decrease the price of RDRAM.

86. In a June 8, 2000 email, Farhad Tabrizi of Hynix told a top Hynix executive in a "private email" that "If Intel does not invest in us, I really want to ask you to let me go back to my old mode of RDRAM killing. I think we were very close to achieving our goal until you said we are absolutely committed to this baby." (HR905_125161-162 [RX-1661]).

87. Advancing the conspiracy through industry associations continued. In July 2000, the Defendants discussed "the possibility for the Council on Computing Power to 'merge' operations with AMI, Inc. . . ," one of the advantages being "Consolidation of industry organizations which promote collaboration." (HR905_124425-426 [RX-1688])

88. The partial success of Defendants' conspiracy was demonstrated in October 2001, when Intel announced that it was going to abandon plans to manufacture a four-bank RDRAM chipset named Tulloch, even though it was less

expensive than the 16-bank that it was shipping at the time. Full success was achieved by May 2003, when Intel notified hardware developers that it would discontinue using RDRAM for certain applications.

89. Even before their conspiracy to block RDRAM's successful launch met complete success, Defendants began to reap the benefits of their conspiratorial efforts by agreeing to fix -- and raise -- the price of their alternative devices. In November 2001, as Micron announced in an email dated November 26, 2001: we will be increasing prices to all of the OEM customers." (MU00026836 [RX-1922]). This email demonstrated Infineon's attempts to lay the foundation for price increases, and Defendants' coordination of their efforts to fix and raise prices:

> Most OEMs prefer to negotiate pricing for the 1st and 15th of each month.... We will begin price discussions with the OEMs today. Infenion [sic] has already laid the ground work by trying to lift pricing a few weeks ago. We believe that they have been successful with only a couple of OEMs to date. Samsung has also had discussions with the OEMs early last week and is preparing them for increases in the first part of December. The consensus from all suppliers is that if Micron makes the move, all of them will do the same and make it stick. (*Id.*).

90. The conspiracy continued in 2002. On or about January 7, 2002, Hynix raised its contracted prices for the third time in a month. Micron reportedly stated that if buyers accepted Hynix's price increase, Micron would likely follow suit. In fact, spot prices for DRAM went from a low of $1.00 in November 2001, to a high of $4.80 in March 2002.

91. Defendants' market coordination activities continued at least until May 2002, when Infineon and Micron planned to hold a "market review exchange meeting," at which executives of the two companies would participate in a "roadmap exchange" and would discuss such topics as "Market Segmentation," "DRAM Supply Development," and "Supply/Demand Ratio Short and Long Term." (MU00049930 [RX-2031]).

F. Equitable Tolling And Continuing Conspiracy

92. Rambus's discovery of the wrongful conduct alleged herein by Defendants and others was delayed by Defendants' fraudulent concealment, continuing deceptive acts, practices, and omissions, and continuing conspiracy. Until recently, and in no event earlier than June 2001, Rambus had no knowledge of the wrongful conduct involving Defendants' collusive conduct, illegal relationships or contracts, and conspiracies by and between Defendants, as alleged herein, or of any facts that might have led to the discovery thereof in the exercise of reasonable diligence. The evidence referred to herein was in the possession, custody and control of Defendants and other unknown third parties. Moreover, the communications and meetings concerning the collusive conduct, illegal relationships or contracts, and conspiracies by and between Defendants were conducted in secret, maintained as confidential, and could not, in the exercise of reasonable diligence, have been discovered earlier by Rambus.

93. Defendants, and each of them, took affirmative steps to conceal the collusive conduct, illegal relationships and contracts, and conspiracies alleged herein. Defendants fraudulently concealed their wrongful conduct by various means and methods, which included, but were not limited to, the following: (a) making or paying others to make false or misleading statements that blamed shortfalls in RDRAM production and/or high RDRAM costs and prices on non-existent or greatly exaggerated problems; (b) holding secret meetings; and (c) forming sham entities to facilitate secret communications among Defendants.

94. In addition, the wrongdoing alleged herein involved multiple, continuous deceptive acts and practices by Defendants and others that occurred over many years, and there is a likelihood that such conduct is continuing. Plaintiff is informed and believes that Defendants have been continuing and are still performing overt acts in 2004 in furtherance of the conspiracies alleged herein.

95. Because the illegal contracts, combinations and conspiracies were kept secret by Defendants, Rambus was unaware of Defendants' secret agreements to restrict production and raise the price of RDRAM and subsequently to increase the price of SDRAM and DDR after they effectively supplanted RDRAM as the dominant memory architecture.

96. Rambus could not have discovered the illegal contracts, combinations or conspiracies at an earlier date by the exercise of due diligence because of Defendants' deceptive practices and techniques of secrecy as described herein.

97. As a result of Defendants' fraudulent concealment, all applicable statutes of limitations have been tolled.

G. Relevant Markets

98. The relevant product market is the market for synchronous DRAM technology and chips. The relevant market includes, but is not limited to, all varieties of (a) Rambus's RDRAM, (b) JEDEC-compliant SDRAM, (c) JEDEC-compliant DDR SDRAM, and (d) other forms of synchronous computer memory.

99. The relevant geographic market is the world.

H. Competitive Harm

100. Defendants' unlawful conduct has had a dramatic adverse effect on the market for synchronous DRAM.

101. By unlawfully restricting the output and fixing the price of RDRAM and limiting the number of suppliers, Defendants created shortfalls in RDRAM supply and increased RDRAM prices. These unlawful actions eliminated RDRAM as a viable choice for most makers of computers and other electronic devices. Defendants' unlawful actions thus enabled them to capture the market for synchronous DRAM and transform it from a market with healthy competition among competing technologies to a market controlled by Defendants.

102. As a direct and proximate result of the unlawful conduct of Defendants and others, Rambus has been deprived of the opportunity to compete in a free and

open market for synchronous DRAM and has been deprived of royalties it would have earned from the sale of RDRAM in such a market.

103. As a direct and proximate result of Defendants' unlawful conduct, consumers have been deprived of the benefit of free and open competition in the synchronous DRAM market and have been injured in their business and property by:

a. paying more for RDRAM than they would have paid in the absence of Defendants' unlawful conspiracy;

b. paying more for SDRAM and DDR SDRAM than they would have paid in the absence of Defendants' unlawful conspiracy; and

c. being denied the benefit of an alternative, superior DRAM technology (*i.e.*, RDRAM).

V. DAMAGES

104. By depriving Rambus of the opportunity to compete in a fair and open market, Defendants' anticompetitive and unlawful conduct has had a dramatic adverse effect on the royalties Rambus has collected and will collect as a result of the sale of RDRAM chips. Among other things, Defendants' conduct directly and proximately caused Intel to abandon its decision to support RDRAM as the DRAM design of choice for its next-generation Pentium chipsets for desktop computers. Defendants' conduct thus deprived Rambus of royalties in an amount to be determined at trial, which potentially amounts to more than one billion dollars.

VI. CAUSES OF ACTION

FIRST CAUSE OF ACTION

(Against All Defendants)

CONSPIRACY TO RESTRICT OUTPUT AND FIX PRICES IN VIOLATION OF THE CARTWRIGHT ACT, CAL. BUS. & PROF. CODE §§ 16720 *et seq.*

105. Rambus realleges and incorporates by reference all of the foregoing allegations of this Complaint.

106. Beginning at a date unknown to Rambus, but by 1996 and continuing to the present, Defendants and their co-conspirators, by and through their officers, directors, employees, agents or other representatives, entered into a continuing horizontal agreement, contract, combination or conspiracy, with and among each other, to boycott Rambus and its RDRAM technology, to restrict the production and sale of RDRAM, to fix, raise and maintain the price of RDRAM, and to allocate the markets for DRAM technologies, in the United States and worldwide.

107. Defendants' specific actions in furtherance of this unlawful conspiracy include but are not limited to:

a. Participating in meetings, conversations, and communications in which they agreed to refuse to deal with Rambus or to use its RDRAM technology, to restrict their output of RDRAM, and to fix, raise and maintain the price of RDRAM;

b. Restricting or otherwise limiting the production of RDRAM and allocating among each other the production of RDRAM;

c. Refusing to make the usual and customary engineering adjustments to "fine tune" and "shrink" the production of RDRAM in a deliberate effort to keep production yields low and costs high, and to advance the false notion that RDRAM was plagued by inherent design or production problems;

d. Acquiring other companies and/or facilities with significant RDRAM production or production plans in order to restrict their output of RDRAM; and

e. Raising, fixing and maintaining the price of RDRAM at supracompetitive levels.

108. The conduct alleged above constitutes an agreement by Defendants that was intended to and did restrict competition in the market for synchronous DRAM. The conduct of Defendants alleged above thus constitutes a contract, combination or conspiracy to boycott Rambus and to raise, fix, peg, or stabilize prices that is an unreasonable restraint of trade and a *per se* violation of the Cartwright Act, Cal. Bus. & Prof. Code §§ 16720, *et seq.*

109. As a direct and proximate result of this unlawful conduct, Rambus was injured in its business and property and suffered damages, according to proof, in the form of, among other things, reduced royalties from artificially restricted sales of RDRAM chips.

SECOND CAUSE OF ACTION

(Against All Defendants)

CONSPIRACY TO MONOPOLIZE

IN VIOLATION OF THE CARTWRIGHT ACT, CAL. BUS. & PROF. CODE §§ 16720 *et seq.*

110. Rambus realleges and incorporates by reference all of the allegations of this Complaint.

111. Beginning at a date unknown to Rambus, but by 1996 and continuing to the present, Defendants and their co-conspirators, by and through their officers, directors, employees, agents or other representatives, entered into a continuing agreement contract, combination or conspiracy to monopolize the market for synchronous DRAM by engaging in the conduct alleged above.

112. As a direct and proximate result of this unlawful conduct, Rambus was injured in its business and property and suffered damages, according to proof, in the form of, among other things, reduced royalties from artificially restricted sales of RDRAM chips.

THIRD CAUSE OF ACTION

(Against All Defendants)

INTENTIONAL INTERFERENCE WITH PROSPECTIVE ECONOMIC ADVANTAGE

113. Rambus realleges and incorporates by reference herein all of the allegations of this Complaint.

114. Rambus was involved in a valid and existing business relationship with Intel evidenced by Intel's decision in 1996 to design its next generation chipsets to support RDRAM. Rambus, in turn, designed its RDRAM chips to meet Intel's requirements. Rambus also had valid and existing business relationships with other companies to provide them with RDRAM.

115. Defendants knew of the relationship between Rambus and Intel and the other relationships, and they feared that these relationships would result in Rambus becoming the principal future designer of DRAM.

116. Accordingly, Defendants intentionally and wrongfully disrupted the relationship between Rambus and Intel, and between Rambus and the other companies, by creating artificial shortages in the production of RDRAM, raising the price of RDRAM, and inventing and/or exaggerating technical problems with the production of RDRAM.

117. As a result of Defendants' intentional and wrongful acts, the business relationship between Rambus and Intel was disrupted, and Intel abandoned its longstanding plans to design and build its next generation chipsets for use with RDRAM. As a result of Defendants' intentional and wrongful acts, the business relationship between Rambus and other companies was disrupted. But for

Defendants' unlawful conduct, RDRAM would have been the principal DRAM standard for desktop computers.

118. Defendants' interference with these business relationships has resulted in damages in the form of, among other things, substantial lost royalties from the sale of RDRAM.

119. In engaging in the conduct described above, Defendants acted with malice, in that they intended by their conduct to cause injury to Rambus, and in that the conduct was despicable and was carried on by Defendants with a willful and conscious disregard of Rambus's rights. Rambus is accordingly entitled to recover punitive and exemplary damages.

FOURTH CAUSE OF ACTION

(Against All Defendants)

UNFAIR COMPETITION IN VIOLATION OF

CAL. BUS. & PROF. CODE §§ 17200, *et seq.*

120. Rambus realleges and incorporates by reference herein all of the allegations of this Complaint.

121. California Business & Professions Code § 17203 prohibits the commission of any "unlawful, unfair, or fraudulent" business act or practice.

122. The Defendants' business acts and practices, as alleged herein, constituted and constitute a continuous and continuing course of conduct of unfair competition by means of unfair, unlawful and/or fraudulent business acts or practices within the meaning of California's Unfair Competition Law, Business & Professions Code § 17200, *et seq.*

123. Through their actions as alleged herein, Defendants have engaged in unlawful and unfair competition within the meaning of California Business & Professions Code § 17200, *et seq.* because Defendants' conduct, business affairs and practices as alleged herein violate the antitrust laws, the Cartwright Act, and California Business & Professions Code § 16720, *et seq.*, each of which constitutes

an independent and separate violation of California Business & Professions Code § 17200, *et seq.*

124. Defendants' conduct, business affairs and practices described herein further constitute unlawful and unfair competition within the meaning of California Business & Professions Code § 17200, *et seq.* because such conduct threatens an incipient violation of California's consumer protection and antitrust laws, including but not limited to the Unfair Competition Law and Cartwright Act, and/or violates the policy or spirit of such laws or otherwise significantly threatens or harms California consumers. Defendants' conduct, business affairs and practices were fraudulent because they were likely to deceive consumers.

125. Plaintiff is entitled to relief, including full restitution and/or disgorgement of all revenues, earnings, profits, compensation and benefits, such other monetary relief as the court deems just in light of the ill-gotten gains obtained by Defendants as a result of such business acts or practices, and an injunction prohibiting Defendants from engaging in the practices described herein.

VII. PRAYER FOR RELIEF

126. WHEREFORE, Plaintiff Rambus prays for judgment and relief against Defendants as follows:

A. An award of actual and treble damages according to proof;

B. Punitive and exemplary damages in a sum sufficient to punish and make an example of Defendants;

C. Entry of a permanent injunction enjoining Defendants and their respective successors, agents, servants, officers, directors, employees and all persons acting in concert with them from pursuing the policies, acts and practices complained of herein and prohibiting Defendants from continuing such unfair and illegal business acts and practices;

D. An award of pre- and post-judgment interest according to proof;

E. An award of attorneys' fees, costs and other expenses according to proof; and

F. Such other and further relief as this Court deems just and proper.

COTCHETT, PITRE, SIMON & McCARTHY

DATED: May 5, 2004

By: _____
Joseph W. Cotchett

MUNGER, TOLLES & OLSON LLP

DATED: May 5, 2004

By: _____
Steven M. Perry

Attorneys for Plaintiff
RAMBUS INC.

DEMAND FOR JURY TRIAL

Plaintiff Rambus, Inc. hereby demands a trial by jury on all issues triable by a jury.

COTCHETT, PITRE, SIMON & McCARTHY

DATED: May 5, 2004

By: _____
Joseph W. Cotchett

MUNGER, TOLLES & OLSON LLP

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By: _____
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