UNITED STATES OF AMERICA BEFORE THE FEDERAL TRADE COMMISSION

In the Matter of

RAMBUS INC.,

Docket No. 9302

a corporation.

RESPONDENT RAMBUS INC.'S SECOND SET OF REQUESTS FOR ADMISSIONS TO THE FEDERAL TRADE COMMISSION

Pursuant to section 3.32 of the Federal Trade Commission's Rules of Practice,

Respondent hereby requests that Complainant Federal Trade Commission respond to the following requests for admission. Each of the documents referenced in these requests is known to be in Complaint Counsel's possession, custody or control. Responses are due 10 days after service of the non-public version of these requests.

REQUEST FOR ADMISSION NO. 1:

Admit that JEDEC's Manual of Organization and Procedure JEP 21-H was first published in 1988. [JDC 013328-47].

REQUEST FOR ADMISSION NO. 2:

Admit that JEDEC's Manual of Organization and Procedure JEP 21-H contains no reference to the disclosure by JEDEC members of patents. [JDC 013328].

REQUEST FOR ADMISSION NO. 3:

Admit that JEDEC's Manual of Organization and Procedure JEP 21-H contains no reference to the disclosure by JEDEC members of patent applications. [JDC 013328].

REQUEST FOR ADMISSION NO. 4:

Admit that Rambus and Hewlett-Packard signed a Non-Disclosure Agreement in or about January 1990. [R 196023; RF 0137623].

REQUEST FOR ADMISSION NO. 5:

Admit that Rambus and Siemens signed a Non-Disclosure Agreement in or about February 1990. [R 157965; I 252092].

REQUEST FOR ADMISSION NO. 6:

Admit that Rambus and Mitsubishi signed a Non-Disclosure Agreement in or about January 1990. [R 196023; RF 0138777].

REQUEST FOR ADMISSION NO. 7:

Admit that Rambus and Micron Technology signed a Non-Disclosure Agreement in or about March 1990. [R 202037].

REQUEST FOR ADMISSION NO. 8:

Admit that Rambus and Toshiba signed a Semiconductor Technology License Agreement in or about April 1990. [R 26994; WGSR 006832; RF 0140403].

REQUEST FOR ADMISSION NO. 9:

Admit that Rambus and Motorola signed a Non-Disclosure Agreement in or about April 1990. [R 196023; RF 0138895].

REQUEST FOR ADMISSION NO. 10:

Admit that Rambus and NEC entered into a Non-Disclosure Agreement in or about April 1990. [PTX 117].

REQUEST FOR ADMISSION NO. 11:

Admit that Rambus filed a patent application with the United States Patent and Trademark Office on April 18, 1990, and that that application was given the number

07/510,898. [R 12896].

REQUEST FOR ADMISSION NO. 12:

Admit that Rambus and Philips signed a Non-Disclosure Agreement in or about

May 1990. [PTX 117; RF 0139328].

REQUEST FOR ADMISSION NO. 13:

REQUEST FOR ADMISSION NO. 30:

Admit that Rambus and Samsung signed a Non-Disclosure Agreement in or about March 1992. [PTX 117].

REQUEST FOR ADMISSION NO. 31:

Admit that an IBM employee informed a Siemens employee in or about April 1992 that Rambus had demanded \$10,000,000 from Samsung because of similarities between SDRAMs and the architecture of Rambus memory. [I 247961].

REQUEST FOR ADMISSION NO. 32:

Admit that Siemens' JEDEC 42.3 subcommittee representative Willibald Meyer and Siemens' employee N. Wirth wrote on or about April 30, 1992 that "[t]he original idea of the SDRAM is based on the basic principles of a simple clock input (IBM toggle pin) and the complex Rambus structure." [I 252164].

REQUEST FOR ADMISSION NO. 33:

Admit that Siemens' JEDEC 42.3 subcommittee representative Willibald Meyer and Siemens' employee N. Wirth wrote on or about April 30, 1992 that "NEC (Rambus licensee) was the first to suggest a leaner "public domain" version based on this: maintain a synchronous control, 2 banks, 4-fold internal data bus, 4 word register at the data output, and possibly LOW level interface (similar to GTL) from the RAMBUS while leaving off the proprietary RAMBUS control protocol." [I 252164].

REQUEST FOR ADMISSION NO. 34:

Admit that Siemens' JEDEC 42.3 subcommittee representative Willibald Meyer and Siemens' employee N. Wirth wrote on or about April 30, 1992 that "it has becommeRAMBUS memor

conventional DRAM."

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Admit that on or about May 6, 1992, Siemens' JEDEC 42.3 subcommittee

representative Willibald Meyer prepared a chart comparing the "pros" and "cons" of synchronous DRAMs, cached DRAMs and Rambus DRAMs, and that one of the two "cons" listed with respect to synchronous DRAMs was that "2-bank sync may fall under Rambus patents." [I 252065].

REQUEST FOR ADMISSION NO. 36:

Admit that on or about May 6, 1992, the JEDEC 42.3 subcommittee met in New Orleans, Louisiana.

REQUEST FOR ADMISSION NO. 37:

Admit that during the May 6, 1992 New Orleans meeting, IBM representative Gordon Kelley asked Richard Crisp if he would care to comment regarding possible Rambus patent claims with respect to 2 bank synchronous DRAM designs, and Mr. Crisp declined to comment. [R 200474].

REQUEST FOR ADMISSION NO. 38:

Admit that if a JEDEC representative refused to respond to a request to state his or her company's patent position with respect to technology being considered by JEDEC for standardization, the refusal to respond was a violation of the JEDEC patent policy.

REQUEST FOR ADMISSION NO. 39:

Admit that the facts set forth in Request For Admission No. 38 were well known to JEDEC 42.3 representatives between 1992 and 1996.

REQUEST FOR ADMISSION NO. 40:

Admit that at the May 1992 JEDEC 42.3 subcommittee meeting in New Orleans, issues regarding possible Rambus intellectual property claims to SDRAM devices were raised and not resolved. [JDC 001196; R 200474; I 211400].

REQUEST FOR ADMISSION NO. 41:

Admit that at the May 1992 JEDEC 42.3 subcommittee meeting in New Orleans, NEC representative Howard Sussman stated that he had reviewed the publicly available copy of Rambus' International Patent Application and that, in his opinion, many of Rambus' claims were anticipated by prior art. [R 200474].

REQUEST FOR ADMISSION NO. 42:

Admit that at the May 1992 JEDEC 42.3 subcommittee meeting, NEC's Howard Sussman stated that Motorola's patent with respect to synchronous DRAMs predated Rambus' patent application with respect to synchronous DRAMs. [I 211400; R 200474].

REQUEST FOR ADMISSION NO. 43:

Admit that Siemens' JEDEC 42.3 subcommittee representative Willibald Meyer wrote a May 15, 1992 "Summary of JEDEC Meeting" that stated in part that "Siemens and Philips concerned about patent situation with regard to Rambus and Motorola. No comments given. Motorola patents have priority over Rambus'. Rambus patents filed but pending." [I 211400].

REQUEST FOR ADMISSION NO. 44:

Admit that at the May 1992 JEDEC 42.3 subcommittee meeting in New Orleans, subcommittee chairman Jim Townsend presented viewgraphs that quoted in part, as follows, from EIA Publication EP-3-F, the Manual for Committee, Subcommittee, and Working Group Chairman and Secretaries:

"No program of standardization shall refer to a product on which there is a <u>known patent</u> (underline mine) unless all the technical information covered by the patent is known to the Formulating Committee."

[JDC 001202].

REQUEST FOR ADMISSION NO. 45:

Admit that at the May 1992 JEDEC 42.3 subcommittee meeting in New Orleans, the ANSI patent policy implementation guide was shown to subcommittee members. [JDC 001196].

REQUEST FOR ADMISSION NO. 46:

Admit that at and after the May 1992 JEDEC 42.3 subcommittee meeting, the

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"Patent Tracking List" prepared by the subcommittee chairman listed a Motorola "sync DRAM Townsend's Patent Tracking List and was characterized as involving "sync clock." [JDC 001782].

REQUEST FOR ADMISSION NO. 64:

Admit that after the disclosure of the '703 Patent to JEDEC, no EIA officer, representative or employee asked any questions of Rambus regarding the scope, application or validity of the '703 Patent.

REQUEST FOR ADMISSION NO. 65:

Admit that after the disclosure of the '703 Patent to JEDEC, no JEDEC officer, representative or employee asked any questions of Rambus regarding the scope, application or validity of the '703 Patent.

REQUEST FOR ADMISSION NO. 66:

Admit that EIA Secretary Ken McGhee sent a letter in March 1994 to Jim Townsend, the chair of JEDEC's 42.3 subcommittee, that stated in part that JEDEC's legal counsel "didn't think it was a good idea to require people at JEDEC standards

REQUEST FOR ADMISSION NO. 68:

Admit that in or about August 1994, Siemens' JEDEC 42.3 subcommittee representative Willibald Meyer sent a memorandum entitled "IP Rights vs Memory Derivatives" that referenced Rambus's '703 Patent next to "SDRAM." [PTX883].

REQUEST FOR ADMISSION NO. 76:

Admit that the minutes of the August 21, 1995 meeting of the IEEE 1596.7 task group state in part as follows:

"Richard Crisp, of RamBus, informed us that in their opinion both RamLink and SyncLink may violate RamBus patents that date back as far as 1989. Others commented that the RamLink work was public early enough to avoid problems, and thus might invalidate such patents to the same extent that they appear to be violated. However, the resolution of these questions is not a feasible task for this committee, so it must continue with the technical work at hand."

[HR905_081903].

REQUEST FOR ADMISSION NO. 77:

Admit that at a September 11, 1995 JEDEC meeting in Crystal City, Virginia, Rambus provided the following prepared statement:

> "At the last JEDEC meeting it was noted that the subject of the Synclink DRAM proposal bears a strong resemblance to Rambus DRAMs and so I was asked to make a comment about the Rambus intellectual property position as it may relate to the Synclink proposal.

Richard Crisp attended the 42.3 subcommittee meeting in December 1995 in Dallas, Texas. [JDC 002308].

REQUEST FOR ADMISSION NO. 83:

Admit that the minutes of the January 11, 1996 meeting of the SyncLink Consortium contain the following statement:

> "Rambus has 16 patents already with more pending. Rambus says their patents may cover our SyncLink approach even though our method came out of early RamLink work. Micron is particularly concerned to avoid the Rambus patents, though all of us share this concern."

[HR905_135808].

REQUEST FOR ADMISSION NO. 84:

REDACTED.

REQUEST FOR ADMISSION NO. 85:

Admit that the minutes of the May 13, 1996 meeting of the SyncLink Consortium contain the following statement:

"We need a JEDEC-like clause (which is similar to ANSI clause, which is similar to IEEE clause, which is to be changed because of problems with today's patent realities, which requires ANSI clause to be changed for the same

reason, so the situation is murky)."

[HR905_136287].

REQUEST FOR ADMISSION NO. 86:

Admit that the ANSI Patent Policy did not in 1996 require the disclosure of patent applications.

REQUEST FOR ADMISSION NO. 87:

Admit that the ANSI Patent Policy has never required the disclosure of patent applications.

REQUEST FOR ADMISSION NO. 88:

Admit that the ANSI Patent Policy does not today require the disclosure of patent applications.

REQUEST FOR ADMISSION NO. 89:

Admit that in January 1996, the EIA informed the FTC in writing that "allowing patented technology in standards is procompetitive." [1/22/96 letter to FTC].

REQUEST FOR ADMISSION NO. 90:

Admit that in January 1996, the EIA informed the FTC in writing that "[b]oth EIA and TIA encourage the early, voluntary disclosure of patents that relate to the standards in work." [1/22/96 letter to FTC].

REQUEST FOR ADMISSION NO. 91:

Admit that in January 1996, the EIA informed the FTC in writing that:

"The early disclosure policies of EIA and TIA have worked well to highlight possible patents and ensure that they will be availahat 5273 T RN1271 technolog24 TD 0.339 bT.183 T5SSIO " created, the important issue is the license availability to all

Recently at JEDEC meetings the subject of Rambus patents has been raised. Rambus plans to continue to license its proprietary technology on terms that are consistent with the business plan of Rambus, and those terms may not be consistent with the terms set by standards bodies, including JEDEC. A number of major companies are already licensees of Rambus technology. We trust that you will understand that Rambus reserves all rights regarding its intellectual property. Rambus does, however, encourage companies to contact Dave Mooring of Rambus to discuss licensing terms and to sign up as licensees.

Ro the extent that analyone is interested in the patents of and to h a v patents. Rambus has also applied for a number of additional patents in order to protect Rambus technology." e

[R 157080].

REQUEST FOR ADMISSION NO. 98

Admit that no JEDEC Manual prior to July 1996 contained any written requirement that a member must disclose to JEDEC an intention "to amend a patent application [where it] believe[s] that, by doing so, it possibly could succeed in covering some aspect or implementation of JEDEC's standards or its standard-setting work." [Complaint Counsel's Response and Objections to Respondent Rambus Inc.'

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or its standard-setting work." [Complaint Counsel's Response and Objections to Respondent Rambus Inc.'s First Set of Interrogatories, at 58].

REQUEST FOR ADMISSION NO. 100:

Admit that JEDEC members other than Rambus in the period 1990-1996 held, but did not disclose to JEDEC, pending patent applications that related to or might have been involved in JEDEC's work.

REQUEST FOR ADMISSION NO. 101:

Admit that no JEDEC Manual prior to July 1996 contained any written

REQUEST FOR ADMISSION NO. 106:

Admit that news reports in the latter half of 1996 stated that SyncLink DRAMs, or "SLDRAMs," would be available on a royalty-free basis following IEEE ratification, contradicting earlier reports suggesting that the SyncLink consortium was seeking to patent at least some of its design and would pursue licensing royalties from nonmembers. [McAfee Appendix, p. 37].

REQUEST FOR ADMISSION NO. 107:

Admit that on or about September 17, 1996, a Texas Instruments patent counsel named Gary Honeycutt sent a letter to Farhad Tabrizi about the SyncLink Consortium's September 9, 1996 press release, which letter stated that Tabrizi had confirmed that SLDRAMs would be royalty free only in the sense that copies of the specification could be obtained for free. [R128270].

REQUEST FOR ADMISSION NO. 108:

Admit that the minutes of the October 1, 1996 meeting of the SyncLink Consortium stated in connection with All Tf 0.1633 Tc 0.0242 Tw (REQUEST FOR ADMISSIO) Tj 1

REQUEST FOR ADMISSION NO. 111:

Admit that the business history of Rambus is essentially a history of its efforts to secure license agreements with vendors for the development of its designs and to convince equipment manufacturers to incorporate such licensed Rambus designs in their products. [McAfee Appendix, p. 18].

REQUEST FOR ADMISSION NO. 112:

Admit that on or about November 15, 1996, Intel and Rambus signed a License Agreement. [R 107530]

REQUEST FOR ADMISSION NO. 113:

Admit that the November 1996 announcement by Intel of its License Agreement with Rambus fed the perception of Rambus as the heir apparent for main memory and significantly heightened vendor fears regarding the selection of a proprietary design. [McAfee Appendix, p. 42].

REQUEST FOR ADMISSION NO. 114:

Admit that by virtue of its considerable influence in the manufacture of processors and chipsets, Intel's selection of Rambus threatened unilaterally to establish the Rambus DRAM as a de facto industry standard. [McAfee Appendix, p. 44].

REQUEST FOR ADMISSION NO. 115:

Admit that in late 1996, the threat of Rambus becoming a bottleneck for DRAM design and a tollbooth for the collection of royalties was a widespread concern for DRAM vendors of main memory. [McAfee Appendix, p. 45].

REQUEST FOR ADMISSION NO. 116:

Admit that in late 1996, Intel's choices were basically as follows – (1) select Rambus and work with it to make needed modifications, (2) support JEDEC and the DRAM vendors in the development of DDR SDRAM, (3) join the SyncLink consortium and shape its path, or (4) develop its own new DRAM architecture. [McAfee Appendix, p. 53].

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REQUEST FOR ADMISSION NO. 117:

REDACTED.

REQUEST FOR ADMISSION NO. 118:

REDACTED.

REQUEST FOR ADMISSION NO. 119:

Admit that the minutes of the December 3, 1996 SyncLink Consortium meeting state in part that:

"Many suppliers are paranoid over the prospect of a single customer, e.g. Intel having control of market. We can't resist such a possibility individually. We need some 9 Tw 3tedid among themselves. [HR905_130814].

REQUEST FOR ADMISSION NO. 121:

REDACTED.

REQUEST FOR ADMISSION NO. 122:

REDACTED.

REQUEST FOR ADMISSION NO. 123:

Admit that at the January 10, 1997 Tokyo meeting of DRAM manufacturers, a Siemens executive stated that Rambus was "not acceptable." [HR905_136982].

REQUEST FOR ADMISSION NO. 124:

Admit that one of the attendees at the January 10, 1997 Tokyo meeting of DRAM manufacturers said that "[d]epending on Intel for business is worse than getting on drugs – it's like someone is sleeping with your wife, and they want you to pay the hotel bill!" [HR905_136982].

REQUEST FOR ADMISSION NO. 125:

Admit that the minutes of the February 11, 1997 meeting of SLDRAM Inc. (formerly the SyncLink Consortium) stated in part that "Intel won't change course unless Rambus fails." [HR905_137061].

REQUEST FOR ADMISSION NO. 126:

Admit that prior to July 1996, there was no proposed standard balloted for approval by a JEDEC committee subcommittee that included an on-chip PLL.

REQUEST FOR ADMISSION NO. 127:

Admit that prior to July 1996, there was no proposed standard balloted for

approval by a JEDEC committee subcommittee that included an on-chip DLL.

REQUEST FOR ADMISSION NO. 128:

Addit that prior to July 1996, there was no proposed standard balloted for approval by a JEDEC committee subcommittee that included a dual-edged clocking scheme.

REQUEST FOR ADMISSION NO. 129:

Admit that in or about March 1997, Rambus and Micron signed a Semiconductor Technology Licensing Agreement. [R 25780]

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Admit that the minutes of the March 13, 1997 JEDEC 42.3 subcommittee meeting stated, in connection with a presentation regarding dual data rate ("DDR") technology, that "[s]ome on the committee felt that Rambus had a patent on that type of clock design. Others felt that the concept predated Rambus by decades Rambus has also told JEDEC that the y do not intend to comply with JEDEC patent policies." [JDC 002565].

REQUEST FOR ADMISSION NO. 131:

Admit that Micron has listed on its privilege log a March 25, 1997 e-mail from Micron employee Jeff Mailloux to Micron in-house counsel David Westergard containing a "confidential communication regarding SGRAM DDR and Rambus." [Micron Privilege Log, hereinafter "MPL," at 1007].

REQUEST FOR ADMISSION NO. 132:

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REQUEST FOR ADMISSION NO. 134:

Admit that Micron has listed on its privilege log an April 11, 1997 e-mail from Kevin Ryan to Terry Lee and a Micron in-house lawyer that contains a "confidential communication regarding Rambus patents." [MPL 191].

REQUEST FOR ADMISSION NO. 135:

REQUEST FOR ADMISSION NO. 138:

Admit that Micron has listed on its privilege log an e-mail dated May 28, 1997 from Micron employee D. Cathey to Micron in-house counsel David Westergard containing a "[c]onfidential communication regarding persons knowledgeable about Rambus patents." [MPL 1044].

REQUEST FOR ADMISSION NO. 139:

Admit that Micron has listed on its privilege log an e-mail dated July 11, 1997 from Micron employee Jeff Mailloux to Micron in-house counsel David Westergard and others containing a "[c]onfidential communication regarding Rambus development and SyncLink." [MPL 1056].

REQUEST FOR ADMISSION NO. 140:

Admit that in 1997, there was as yet no clear industry consensus on the next generation DRAM architecture. [McAfee Appendix, p. 117].

REQUEST FOR ADMISSION NO. 141:

Admit that over the 1997-1998 time period, despite Intel's stated choice of Rambus for next-

payment of intellectual property royalties on their manufactured products over the 1990s. [McAfee Appendix, p. 182].

REQUEST FOR ADMISSION NO. 145:

Admit that DRAM manufacturers hold dozens of issued patents relating to the oyymit that2

present for Mr. McComas's June 25, 1998 presentation to SLDRAM, Inc. company executives. [Tabrizi, p. 178].

REQUEST FOR ADMISSION NO. 152:

Admit that at the June 25, 1998 presentation, Mr. McComas stated that he wanted to receive DRAM manufacturers' DRDRAM production estimates in order to create and then send to DRAM manufacturers a combined DRDRAM forecast. [Tabrizi, p. 179].

REQUEST FOR ADMISSION NO. 153:

REDACTED.

REQUEST FOR ADMISSION NO. 154:

REDACTED.

REQUEST FOR ADMISSION NO. 155:

Admit that after SLDRAM, Inc. became AMI, AMI attempted to provide the same service to its member companies that is referenced in Request No. 154 above. [Tabrizi,

p. 180]

REQUEST FOR ADMISSION NO. 156:

REDACTED.

REQUEST FOR ADMISSION NO. 157:

REDACTED.

REQUEST FOR ADMISSION NO. 158:

Admit that it was well known to DRAM manufacturers in 1998 and 1999 that Intel would be unsuccessful in ramping up RDRAM sales unless the cost of RDRAM came very close to that of SDRAM. [Tabrizi, pp. 172-3].

REQUEST FOR ADMISSION NO. 159:

Admit that in 1998 and 1999, Rambus's development of RDRAM memories capable of achieving bandwidth of 1.6 GBps and better was just one condition for Intel's selection of the Rambus technology for PC main memory, and that Intel also required that commercial quantities of RDRAM and RDRAM-compatible system elements be widely available by its targeted introduction dates, which meant that much of Rambus's fate lay in the hands of the manufacturers responsible for successfully implementing costeffective fabrication of the products in sufficient volumes to meet demand. [McAfee Appendix, p. 88].

REQUEST FOR ADMISSION NO. 160:

Admit that by late 1998, the trade press was reporting that the price premium associated with DRDRAM relative to other memory architectures would keep OEMs from including DRDRAMs in all but the most performance-driven PCs. [McAfee Appendix, p. 100].

REQUEST FOR ADMISSION NO. 161:

Admit that RDRAM production difficulties were less of a concern to DRAM manufacturers in 1998 and 1999 than the royalties associated with the use of RDRAM. [McAfee Appendix, p. 108].

REQUEST FOR ADMISSION NO. 162:

Admit that in 1998, Intel became increasingly worried that RDRAM and its

system elements would not be available in commercial quantities from multiple sources by Intel's target dates. [McAfee Appendix, p. 111].

REQUEST FOR ADMISSION NO. 163:

Admit that in 1998, there was as yet no clear industry consensus on nextgeneration DRAM architecture. [McAfee Appendix, p. 117].

REQUEST FOR ADMISSION NO. 164:

Admit that in the spring of 1999, trade press reports stated that DRAM manufacturers were applying financial and staffing resources "that could have been spent on bringing the cost of Rambus memory down" to the development of other memory technologies. [McAfee Appendix, pp. 133-4].

REQUEST FOR ADMISSION NO. 165:

Admit that in the spring of 1999, a trade press report stated that "[c]hip companies, from NEC to Toshiba, said they will refrain from building a large amount of Direct RDRAM production capacity to avoid a possible market glut later this year." [McAfee Appendix, p. 144].

REQUEST FOR ADMISSION NO. 166:

Admit that in the summer of 1999, a Micron marketing manager told the press that he did not "realistically see how we can sell [RDRAM chips] for less than 50 percent premium any time soon." [McAfee Appendix, pp. 130-1].

REQUEST FOR ADMISSION NO. 167:

Admit that trade press reports in September 1999 stated that prices for Rambus memory were typically around double that of SDRAM prices. [McAfee Appendix, p. 133].

REQUEST FOR ADMISSION NO. 168:

Admit that in 1998 and 1999, the price premium for RDRAM compared to SDRAM threatened the commercial viability of the Rambus architecture. [McAfee Appendix, p. 134].

REQUEST FOR ADMISSION NO. 169