

**UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION**

In the Matter of

RAMBUS INC.,

a corporation.

Docket No. 9302

**RESPONDENT RAMBUS INC.'S COMBINED OPPOSITION TO COMPLAINT
COUNSEL'S MOTION IN LIMINE REGARDING THE TESTIMONY OF
MICHAEL GEILHUF AND MOTION IN LIMINE REGARDING THE
TESTIMONY OF DONALD SODERMAN AND MARTIN FLIESLER**

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INTRODUCTION

To prevail in this antitrust case, Complaint Counsel must prove that there were technically viable, cost efficient, noninfringing alternatives to Rambus's patented technology. In attempting to meet this burden, Complaint Counsel rely on the testimony of their technical expert, Bruce Jacob. Complaint Counsel move in limine, however, to preclude certain testimony of Rambus's technical experts, Michael Geilhufe and Donald Soderman that would expose critical deficiencies in Professor Jacob's analysis.

Professor Jacob has proposed numerous "alternative technologies" that he asserts DRAM manufacturers could have used to "design around" Rambus's intellectual property. Professor Jacob did not test his proposed alternatives to show that they were feasible, did not estimate the costs of implementing the proposed alternatives, and did not investigate whether the proposed alternatives also infringed Rambus's intellectual property (or the intellectual property of a third-party). Absent such analysis, Professor Jacob's testimony regarding "alternatives" is entirely speculative. Complaint Counsel now seek to keep Mr. Geilhufe from pointing out the costs associated with Professor Jacob's alternatives and Dr. Soderman from identifying Rambus patents that are infringed by those "alternatives."

In large part, Complaint Counsel's objections to Mr. Geilhufe's and Dr. Soderman's testimony should properly be directed at Professor Jacob's inadequate description of those alternatives. For example, Complaint Counsel fault Mr. Geilhufe for not doing a "detailed design" of certain alternatives – but these are Professor Jacob's proposals and Mr. Geilhufe's cost estimates were based on Professor Jacob's descriptions. Likewise, Complaint Counsel argue that Dr. Soderman's infringement analysis is "necessarily

hypothetical and speculative,” because it is unclear how the proposed alternatives would be incorporated into a standard. If, however, Professor Jacob’s description of proposed alternatives is not sufficiently precise to allow cost estimates or an analysis of whether they are likely to avoid Rambus’s patents, then Professor Jacob’s description does not allow an analysis of whether his proposals *are* actually viable alternatives and it is Professor Jacob’s testimony that should be excluded.

In stark contrast to Professor Jacob, a young academic who had never been involved in the design of semiconductors for fabrication prior to 2002, Mr. Geilhufe and Dr. Soderman each have approximately 35 years of experience in the semiconductor industry. Complaint Counsel assert that Mr. Geilhufe’s cost estimates based on his experience are not reliable; to the contrary, Mr. Geilhufe’s proven track record of making just these sorts of cost estimates establish their reliability and courts routinely admit such expert testimony. Complaint Counsel also argue that Dr. Soderman’s infringement analysis is not reliable, but does not dispute that Dr. Soderman is a person of skill in the art to which the patents are addressed – the law is clear that it is precisely from the vantage point of a person of skill in the art like Dr. Soderman that the patents are to be analyzed.

In the motion directed at Dr. Soderman’s testimony, Complaint Counsel also seek to preclude Rambus’s patent expert, Martin Fliesler, from testifying regarding the infringement of a particular Rambus patent by DDR SDRAM devices. At best, however, Complaint Counsel’s various objections to the testimony of Mr. Geilhufe, Dr. Soderman and Mr. Fliesler are grounds for cross-examination, not exclusion. Your Honor should deny the motions in limine.

BACKGROUND

The Complaint in this matter alleges that, while Rambus was a member of JEDEC, it improperly failed to disclose that it had pending patent claims or might in the future attempt to obtain patent claims that would cover memory devices containing any of four technological features. Complaint Counsel refer to these features as “(1) programmable CAS latency; (2) programmable burst length; (3) on-chip PLL/DLL; and (4) dual-edge clock.” Complaint ¶ 56. Key to Complaint Counsel’s case is the allegation that if Rambus had disclosed potential claims on these four features, JEDEC would have “designed around” Rambus’s technology and standardized a memory device that contained alternatives to each of the features. *Id.* at ¶¶ 62, 65, 69 (asserting that the “design objectives served by inclusion” of each of the four features in the JEDEC standards “likely could have been accomplished through use of alternative DRAM-related technologies available at the time these standards were developed”). Of course, if no viable alternatives were available, any disclosures by Rambus could not have had any effect on the content of the standards promulgated.

To support its case-in-chief with respect to the existence of alternative technologies, Complaint Counsel intend to rely on the testimony of its technical expert, Professor Bruce Jacob. In his report, Professor Jacob throws out several “alternatives” to each of four features discussed above. Professor Jacob did not actually design products containing the alternatives nor do any testing to verify that the alternatives would be feasible. With respect to two of the more than twenty alternatives that he proposes, Professor Jacob

testified that he performed some limited “modeling.”¹ With respect to all of the others, when asked whether he did any sort of modeling or construction of the alternative, Professor Jacob responded that “I don't remember doing that.” Deposition of Bruce L. Jacob (“Jacob Depo.”) at 119:19 – 120:6 [Tab 1].² Professor Jacob also admitted that he did not try to determine the costs that would be involved in implementing the proposed alternatives. Id. at 120:7 -121:6 (“No. No. I didn't try to perform an economic analysis.”) [Tab 1]. Nor did Professor Jacob attempt to determine whether the alternatives that he proposed were, in fact, also covered by Rambus patents or patents belonging to third parties. Id. at 151:7-14 (I have not done a search to make sure that each one of these alternatives is royalty free, intellectual property free. No.”) [Tab 1].

Professor Jacob’s analysis fails to establish the existence of any viable alternatives to Rambus’s technology. First, in the absence of actually designing and testing products embodying the “alternatives,” Professor Jacob’s assertion that they would be feasible is nothing more than unsupported speculation. Second, since Professor Jacob did not perform a cost analysis, it is impossible to tell on the basis of his report whether his proposes alternatives would be too costly to be feasible. Third, Professor Jacob did nothing to test one of the fundamental assumptions underlying his proposal of alternative,

¹ The results of the modeling with respect to one of these alternatives, use of the “burst terminate” command has not been produced to Rambus.

² Professor Jacob went on to opine that “for most of those examples it's just basic engineering. It's real obvious stuff. Like the use of fuses, that's really straightforward, just for an example. Just about all of these alternatives are really straightforward engineering.” Jacob Depo. at 120:2-6. Professor Jacob’s opinion that his proposed alternatives would not create implementation difficulties is disputed by Rambus’s experts.

namely that the alternatives he is proposing in order to design around certain Rambus patents and arrive at a “patent-free” standard, are not themselves covered by Rambus patents or patents belonging to others.

Rather than simply rest on Complaint Counsel’s inadequate showing, Rambus intends to introduce testimony from its own technical experts -- Michael Geilhufe and Donald Soderman -- that Professor Jacob’s alternatives are either not technically feasible, not cost efficient, or would infringe Rambus patents. Mr. Geilhufe is expected to testify as to the likely costs of implementing the alternatives proposed by Professor Jacob. Dr. Soderman is expected to testify that many of the alternatives proposed by Professor Jacob pose significant engineering challenges and, to the extent that they would be possible to implement at all, would result in significantly reduced performance. Finally, Dr. Soderman is also expected to testify that certain alternatives proposed by Professor Jacob are not really alternatives at all since they appear to be covered by Rambus patents.

Complaint Counsel now seek to exclude Mr. Geilhufe’s testimony regarding the cost implications of Professor Jacob’s proposed alternatives and Dr. Soderman’s testimony about Rambus patent coverage with respect to those alternatives. To the extent that there is any deficiency in Mr. Geilhufe’s cost analysis or Dr. Soderman’s infringement analysis, however, it can be traced to the lack of detail in Professor Jacob’s report regarding his proposed alternatives. As set forth below, Mr. Geilhufe’s and Dr. Soderman’s proffered testimony meet the standard for the admission of expert testimony.

Complaint Counsel’s motion in limine regarding Dr. Soderman’s testimony also contains similar argument directed at a third Rambus expert: Martin Fliesler. Mr. Fliesler,

an electrical engineer and patent attorney with over 30 years of experience, is expected to testify that Rambus owns a patent outside the patent family that Complaint Counsel have alleged should have been disclosed to JEDEC that read on DDR SDRAMs, rendering Rambus's disclosure or nondisclosure of the other family immaterial.

Complaint Counsel's various quibbles about the proffered testimony of Rambus's experts are appropriately the subject of cross-examination, rather than exclusion of that testimony. As the Supreme Court has made clear, even in cases of expert testimony that stands on far weaker ground than even Complaint Counsel describe as the bases for the opinions of Mr. Geilhufe, Dr. Soderman, and Mr. Fliesler, "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 596 (1993).

ARGUMENT

I. The Standard for Admission of Expert Testimony.

As Complaint Counsel acknowledge, the Federal Rules of Evidence "provide a framework" for analyzing the admissibility of expert testimony. Memorandum in Support of Complaint Counsel's Motion in Limine to Exclude Certain Testimony of Michael Geilhufe ("Geilhufe Memo.") at 11. According to Rule 702 of the Federal Rules of Evidence, "[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the

form of an opinion or otherwise” so long as the testimony meets certain reliability criteria. Here, Complaint Counsel does not argue that the testimony of Mr. Geilhufe, Dr. Soderman or Mr. Fliesler would not assist the trier of fact, but, rather that the testimony is not reliable.

The standard for assessing the reliability of expert testimony is set forth in two Supreme Court cases: Daubert, supra , and Kumho Tire Company, Ltd. v. Carmichael, 526 U.S. 137 (1999). In Daubert, the Court considered the admissibility of scientific expert testimony. Rejecting the rigid “general acceptance” test, the Court held that, in determining the reliability of testimony regarding a scientific theory or technique, judges should consider additional factors such as (1) “whether it can be (and has been) tested;” (2) “whether the theory or technique has been subjected to peer review and publication;” and (3) “the known or potential rate of error.” 509 U.S. at 593-94.

In Kumho Tire, the Court turned to the question of how “Daubert applies to the testimony of engineers,” like Mr. Geilhufe and Dr. Soderman, “and other experts who are not scientists.” 526 U.S. at 141. While the Court found that all expert testimony must be reliable, the Court stressed that the reliability inquiry is flexible and that “[t]he trial court must have the same kind of latitude in deciding *how* to test an expert’s reliability . . . as it enjoys when it decides *whether or not* that expert’s relevant testimony is reliable.” Id. at 152 (emphasis in original). In such cases, the Daubert factors may not be pertinent and, indeed, the Court noted that, in certain cases, “the relevant reliability concerns may focus upon personal knowledge and experience.” Id. at 150; see First Tennessee Bank National Association v. Barreto, 268 F.3d 319, 334 (6th Cir. 2001) (if the four specific Daubert

factors were to be applied “‘outside the scientific realm, many types of relevant and reliable expert testimony -- that derived substantially from practical experience -- would be excluded. Such a result truly would turn Daubert, a case intended to relax the admissibility requirements for expert scientific evidence, on its head’”).

II. Mr. Geilhufe’s Testimony, Based on His Extensive Experience in Semiconductor Manufacturing and the Limited Analysis of Alternatives Provided by Professor Jacob, Is Reliable and Admissible.

Complaint Counsel’s motion to exclude Mr. Geilhufe’s testimony related to costs begins with a misleading quotation taken out of context falsely suggesting that Mr. Geilhufe does not believe in the reliability of his own opinions. Complaint Counsel state that “Mr. Geilhufe concluded that if he were an executive and he received his own report, he would not consider it sufficient to make a decision regarding which technology to use.” Geilhufe Memo. at 1. But the quote that Complaint Counsel rely on to support this statement involves Mr. Geilhufe criticizing *Professor Jacob* for his “totally inadequate” alternatives analysis. Using as input the limited information regarding the alternatives supplied by Professor Jacob, which Mr. Geilhufe testified did not rise to the level that he would have expected when working in industry, Mr. Geilhufe made quite clear that he used the same methods to estimate costs as he used during the 1980s and 1990s when he would make such estimates professionally.

Complaint counsel’s primary objection to Mr. Geilhufe’s testimony appears to be that Mr. Geilhufe relied on his experience in the semiconductor industry to estimate the costs associated with Professor Jacob’s alternatives. Mr. Geilhufe’s method of estimating costs involved analyzing the changes to the DRAM that would be required based on

Professor Jacob’s description of those alternatives and then estimating the associated costs based on Mr. Geilhufe’s extensive personal experience in making such estimates. As shown below, Mr. Geilhufe’s professional background makes him particularly well-qualified to make these sorts of cost estimates. Furthermore, such expert testimony based on experience is perfectly proper.

A. Mr. Geilhufe’s Testimony Meets the Standards for the Admissibility of Expert Evidence.

Although Complaint Counsel strenuously object to Mr. Geilhufe’s experience-based testimony, as the Supreme Court has noted, the determination of whether expert testimony is sufficiently reliable can turn on the expert’s “personal knowledge or experience.”

Kumho Tire, 526 U.S. at 150; see also Maiz v. Virani, 253 F.3d 641, 669 (11th Cir. 2001) (“there is no question that an expert may still properly base his testimony on ‘professional study or personal experience’”). Indeed, courts routinely admit properly qualified experts to testify on the basis of their experience.

In First Tennessee Bank National Association v. Barreto, 268 F.3d 319 (6th Cir. 2001), for example, the court considered the district court’s admission of the testimony of an expert relating to banking standards. Citing the Supreme Court’s statement in Kumho Tire that in some cases “the relevant reliability concerns may focus upon personal knowledge or experience,” the court noted that the banking expert’s testimony was “derived largely from [his] own practical experiences throughout forty years in the banking industry.” Id. at 335. The court quoted with approval the district court’s conclusion, based on its consideration directed at the proposed expert’s experience: “I think he has specialized knowledge that will assist the trier of fact in understanding the evidence, and

any weaknesses in his background will go to the weight to be accorded to his opinion.” Id. at 333.

Indeed, courts allow experience-based expert testimony regarding costs so long as the expert witness’s experience indicates that the testimony is reliable. Thus, in United States v. Mendoza-Paz, 286 F.3d 1104, 1112-13 (9th Cir. 2002), the court upheld the admission of the testimony of an expert in the valuation of illegal narcotics despite defendant’s argument, similar to Complaint Counsel’s here, that the testimony “was not subject to empirical testing, could not be reviewed for error rates, and the estimates it contained had not been accepted in any expert community.” The court noted that the reliability inquiry was a flexible one and that the factors cited by defendant “are not applicable to this kind of testimony, whose reliability depends heavily on the knowledge and experience of the expert.” Id. at 1112 (quoting United States v. Hankey, 203 F.3d 1160, 1169 (2000)). The court found that the district court reasonably concluded from the valuation expert’s eleven years of experience regarding the value of illegal narcotics that “the expert was qualified to give testimony regarding the value of the seized marijuana.” Id. at 1113; see also United States v. Conn, 297 F.3d 548, 556 (7th Cir. 2002) (it was not error to admit testimony of expert “asked to appraise, on the basis of his past experience and training, the value of the firearms found in [defendant’s] residence”).

In fact, Professor Jacob’s proffered testimony is itself experience-based, though based on substantially less relevant experience than Mr. Geilhufe’s. While Professor Jacob describes numerous alternative technologies, he has not designed or tested them. Professor Jacob’s opinion that these alternatives are feasible thus ultimately comes down to his

(strenuously disputed) testimony, based on nothing more than his experience, that the alternatives are just “basic engineering” or “real obvious stuff.” Jacob Depo. at 120:1-6 [Tab 1]. Complaint Counsel apparently believe that Professor Jacob’s testimony is admissible, though it is unclear what experience Professor Jacob relies on to support his conclusion that DRAMs including his proposed alternatives are feasible: Professor Jacob has never designed a DRAM, and had not been involved in the design of any computer chips for actual fabrication prior to 2002. Jacob Depo. at 37:4 – 39:4 [Tab 1]. As shown below, Mr. Geilhufe’s cost estimates are, on the other hand, firmly rooted in his 35 years of experience in the semiconductor industry.

B. Mr. Geilhufe Is Particularly Well-Qualified to Make the Sort of Cost Estimates at Issue Here.

As an Intel engineer, Mr. Geilhufe was personally involved in DRAM design in the 1970s, beginning with the very first DRAM which Mr. Geilhufe designed. Deposition of Michael Geilhufe (“Geilhufe Depo.”) at 31:4-15, 149:12-14 [Tab 2]; Geilhufe Report at 1 (attached as Tab 1 to Geilhufe Memo.). In the 1980s, Mr. Geilhufe became the general manager of Intel’s components contracting business and, in that capacity, managed chip manufacturing operations with United States, Korean, and Japanese semiconductor companies, including DRAM manufacturing at Samsung. Geilhufe Depo. at 31:16 – 32:22; 95:11 – 96:13 [Tab 2]. In the 1990s, Mr. Geilhufe cofounded and worked in various capacities at Information Storage Devices, Inc. (“ISD”), and was intimately involved in manufacturing and cost issues relating to the memory chips designed by ISD. Id. at 12:1-8 [Tab 2]; Geilhufe Report at 21-22. The chips designed by ISD used the same fabrication processes as DRAMs and Mr. Geilhufe kept current with DRAM technology

and manufacturing during this period. Geilhufe Depo. at 97:8 – 98:15 [Tab 2].

During the 1980s and 1990s, Mr. Geilhufe was routinely involved in making just the sort of cost estimates as in his report in this matter. During that period, Mr. Geilhufe was “responsible for the design of maybe 45-50 commercially successful products.” *Id.* at 80:2-4 [Tab 2]. Mr. Geilhufe testified that “it is an absolute requirement for a designer or design manager in the Intel environment,” such as himself, “to make detailed cost estimates for each product that he or she designs.” *Id.* at 234:13-16 [Tab 2]. Those cost estimates included the very items that entered into Mr. Geilhufe’s cost analysis for this case, such as manpower for design work, die size, process complexity, likely yields, testing, and qualification. *Id.* at 234:16 – 235:5 [Tab 2]. Mr. Geilhufe’s continued making such estimates during the 1990s at ISD. *Id.* at 235:13-15 [Tab 2]. The companies for which Mr. Geilhufe worked relied on these cost estimates to make real-world business decisions involving millions of dollars in expenditures.

Complaint Counsel attack Mr. Geilhufe’s qualifications, concentrating on a purported lack of recent DRAM experience. Geilhufe Memo. at 2-3, 10. But, while repeatedly citing to Mr. Geilhufe’s lack of hands-on DRAM manufacturing experience in the 1990s, Complaint Counsel fail to offer any argument whatsoever as to why this might be relevant to Mr. Geilhufe’s DRAM manufacturing cost estimates. In unchallenged testimony, Mr. Geilhufe testified that while he might not have been directly involved in DRAM manufacturing during that period, he was involved in the manufacture of other types of memory chips “using DRAM factories and [he] was familiar with the equipment and processes that were in place.” *Id.* at 103:10-12 [Tab 2]; see, e.g., Maiz v. Virani, 253

F.3d 641, 668 (11th Cir. 2001) (expert with experience in immigration practices elsewhere in Mexico could testify as an expert in case involving the practices of immigration in Monterrey where “[d]efendants do not establish sufficient reason to believe that Monterrey officials handle these matters differently than their counterparts elsewhere in the country . . . Defendant’s objections plainly go to the weight and sufficiency of [the expert’s] opinions rather than to their admissibility.”).

In a 35 year career in the semiconductor industry, Mr. Geilhufe has acquired extensive experience in connection with the precise task that he has been called upon to perform in this matter, namely estimating the cost of manufacturing computer chips. As Mr. Geilhufe testified, his success in his career was in part based on the precision of his estimates: “For someone who has a career in this industry, if you project the cost and you achieve it, you’re viewed as a capable individual or a capable manager and you get to have expanded responsibility.” Id. at 236:11-14 [**Tab 2**]. Mr. Geilhufe also testified that his cost projections at ISD in the 1990s were “quite close” to what the actual costs turned out to be and confirmed the reliability of his estimates. Id. at 236:24 – 237:2 [**Tab 2**]. Complaint Counsel have not disputed this testimony of Mr. Geilhufe’s. It follows that Mr. Geilhufe is eminently qualified to perform the cost estimates that he has proffered in this matter.

C. Mr. Geilhufe’s Cost Estimates Are Necessarily Based on Professor Jacob’s cursory Description of Proposed Alternatives.

Complaint Counsel criticizes Mr. Geilhufe for not doing a “detailed design” of the proposed alternatives before offering his cost estimates. Geilhufe Memo. at 14. But it was not up to Mr. Geilhufe to design the various alternative technologies that Professor Jacob

has described in only a cursory way. Mr. Geilhufe made his best estimate of the cost of the alternatives based on the limited information regarding the alternatives provided by Professor Jacob.

It may be that Professor Jacob's proffered testimony regarding the feasibility of alternative technologies that he has not designed or tested in any way is itself too speculative to be admissible. Indeed, in the products liability context, courts generally exclude testimony regarding "alternative technologies" where, as in this case, an expert testifies to their feasibility but has not actually designed or manufactured the device. See, e.g., Bourelle v. Crown Equipment Corp., 220 F.3d 532, 537 (7th Cir. 2000) (upholding the exclusion of expert testimony as to alternative design where expert had failed to prepare a detailed design, perform an economic feasibility study, or perform any testing of the design); Jaurequi v. Carter Manufacturing Co., 173 F.3d 1076, 1084 (8th Cir. 1999) (upholding the exclusion of expert testimony regarding alternative technology as "unabashed speculation" where expert "has not even attempted to construct or even draw the suggested device, much less test its utility as a safety device or its compatibility with [existing technology]"). However, if Professor Jacob's testimony regarding alternative technologies is admitted, Complaint Counsel should not be heard to complain that Mr. Geilhufe's cost estimates are based on insufficient facts or an inadequate design.

Complaint Counsel object that Mr. Geilhufe did not provide them with information that would allow them to verify his conclusions. Geilhufe Memo. at 10. To the contrary, Mr. Geilhufe testified that his cost estimates could be verified by making chips containing the alternative technologies to determine the costs empirically, Geilhufe Depo. at 236:7-11

[**Tab 2**], something Professor Jacob chose not to do.

At his deposition, Mr. Geilhufe was prepared to explain his analysis of how the various alternative technologies presented by Professor Jacob would contribute to increased costs. For example, one of the alternatives to programmable CAS latency proposed by Professor Jacob involved blowing fuses on the DRAM chip to set the CAS latency. Although Professor Jacob did not specify the sort of fuses that he had in mind, Mr. Geilhufe explained that certain types of fuse technology would require an extra step in the manufacturing process that would be prohibitively expensive. Geilhufe Depo. at 123:14 – 127:14 [**Tab 2**]. Having identified the sort of fuse technology that might be used to implement Professor Jacob’s alternative, Mr. Geilhufe explained that blowing such a fuse would increase costs in part due to the increased testing time required “to blow a fuse and to verify that the fuse is open and remains open.” Id. at 131:2-10 [**Tab 2**]. To estimate the amount of additional time this would take during the testing process, Mr. Geilhufe relied on his lengthy experience in the semiconductor industry involving the testing of similar parts. Id. at 131:15-22 [**Tab 2**]. Of course, if Professor Jacob had constructed a part that programmed CAS latency by blowing fuses, the time required to test the part could have been determined precisely. Since such a part has not been built, however, it is left to someone with Mr. Geilhufe expertise to estimate the time and costs that would be involved.³

³ Indeed, Mr. Geilhufe’s estimates are precisely the sort of analysis JEDEC members would have engaged in if faced with the choice of paying a royalty for Rambus’s patents or pursuing an alternative technology since parts implementing the alternative technology would not yet have existed. As Rambus’s economic experts have testified, if such an

As Mr. Geilhufe testified, Professor Jacob’s superficial descriptions of alternative technologies is not an adequate starting point for a serious comparison of alternatives. See Geilhufe Depo. at 232:25 – 233:7 (“The analysis of the alternatives is totally inadequate for a -- let’s say if my design manager came to me in my general manager role with these alternatives and said decide one, I would say go take another five engineers and go to work and do a better job and find serious alternatives analyzing carefully and give me the pros and cons of each one.”) [Tab 2]. However, from that inadequate starting point, Mr. Geilhufe used the same process that “a general manager of my experience would use in analyzing the cost of a product.” Geilhufe Depo. at 77:3-6; see also id. at 243:8-15 (Mr. Geilhufe used the same methodology to estimate costs at ISD as he did in this case) [Tab 2]. Moreover, for the “limited alternative analysis and the limited elements included,” Mr. Geilhufe testified that his cost estimates have the same level of accuracy as the highly accurate cost projections Mr. Geilhufe made during his career. Geilhufe Depo. at 243:1-7 [Tab 2]. This is just the sort of evidence that establishes the reliability of expert testimony. See Kumho Tire, 526 U.S. at 151 (“In certain cases, it will be appropriate for the trial judge to ask, for example, how often an engineering expert’s experience-based methodology has produced erroneous results, or whether such a method is generally accepted in the relevant engineering community.”).

There is no basis on which to exclude Mr. Geilhufe’s testimony; Complaint Counsel’s motion in limine to do so should be denied.

analysis showed that the Rambus royalty was less than the increased cost associated with an alternative, a rational actor would have simply licensed Rambus’s patents.

III. Dr. Soderman's Testimony as to Patent Infringement Is Reliable and Admissible.

Dr. Soderman is expected to testify that, in his opinion, products containing certain of the alternatives proposed by Professor Jacob would infringe certain Rambus patents. Complaint Counsel do not dispute that Dr. Soderman is a person of skill in the art to which the patents at issue are addressed. Rather, Complaint Counsel argue that Dr. Soderman's testimony is unreliable because (1) Dr. Soderman's did not do a full infringement analysis and (2) Dr. Soderman should have done a prior art search to determine whether the patents are valid.

As Complaint Counsel note, the first step in an infringement analysis is the interpretation of the terms used in the patent claim, and it is precisely from the vantage point of a person of skill in the art, like Dr. Soderman, however, that those terms are to be interpreted. Memorandum in Support of Complaint Counsel's Motion In Limine Regarding the Testimony of Donald Soderman and Martin Fliesler ("Soderman Memo.") at 6. Dr. Soderman's opinion as to the meaning of the terms in the patents at issue and how they relate to Professor Jacob's alternatives is, therefore, highly probative. While Complaint Counsel complain that Dr. Soderman did not perform a full infringement analysis, the responsibility for any shortcoming can be laid at Professor Jacob's feet. As Complaint Counsel acknowledge, an infringement analysis involves comparing a claim to an accused device "to determine whether each element of the claim is present in the accused device." Id. Here, there are no devices to which the patent claims can be compared, but only Dr. Jacob's summary description of alternative technologies with no explanation of how the alternatives are to be implemented in actual products.

Complaint Counsel's insistence that Dr. Soderman should have performed a validity analysis of the patents at issue to support his infringement opinion is groundless. Patents that have been issued by the United States Patent and Trademark Office (USPTO) are presumed valid; if Complaint Counsel wish to challenge the validity of a patent, they must establish invalidity by clear and convincing evidence. 35 U.S.C. § 282.

A. As a Person of Ordinary Skill, Dr. Soderman's Infringement Opinion Is Reliable.

In attacking Dr. Soderman's infringement opinion, Complaint Counsel make three arguments: (1) In construing claim terms, Dr. Soderman failed to consult dictionaries, treatises, prior art, the patent's prosecution history, or materials from Rambus's patent litigations, Soderman Memo. at 8; (2) Dr. Soderman failed to compare claims to accused devices, id. at 6, 8; and (3) Dr. Soderman admitted that he was not qualified to render an infringement opinion, id. at 8-9. All of Complaint Counsel's arguments are groundless.

1. Dr. Soderman was not required to consult dictionaries, treatises, prior art, the patent's prosecution history, or materials from Rambus's patent litigations in order to render an infringement opinion.

Dr. Soderman testified that in forming his infringement opinions he reviewed the patent claims and the specification, but did not see study the prosecution histories of the patents and did not see the need to consult dictionaries, treatises or other materials. See, e.g., Deposition of Donald Soderman ("Soderman Depo.") at 271:24 – 273:2 (discussing analysis of U.S. Patent No. 6,101,152) [Tab 3]. This procedure was entirely appropriate.

As the Federal Circuit has made clear, "[i]n construing claims the analytical focus must begin and remain centered on the language of the claims themselves." Texas Digital

Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193, 1201 (Fed. Cir. 2002) (internal quotation marks and citation omitted). Moreover, “[t]he terms used in the claims bear a ‘heavy presumption’ that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art. . . . [U]nless compelled otherwise, a court will give a claim term the full range of its ordinary meaning as understood by persons skilled in the relevant art.” Id. at 1202. Thus, the key inquiry in interpreting claim terms is to determine what a person of skill in the art, like Dr. Soderman, understands the terms to mean. Dr. Soderman is quite capable of testifying as to what he understands terms to mean without consulting dictionaries, treatises or other outside sources. While courts will often consult dictionaries and treatises in construing claims, they do so in order to determine the “ordinary and customary meanings” of those terms to a person of skill in the art like Dr. Soderman. Id.

After reviewing the claims themselves, the next step in the claim construction process is to “review the specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning.” Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1581 (Fed. Cir. 1996). As noted above, Dr. Soderman testified that he did review the specifications of the patents that he analyzed. Contrary to Complaint Counsel’s assertion, however, there is no requirement, to review the prosecution history – i.e. the record of proceedings regarding the patent in the USPTO – in construing claim terms. As the Vitronics court made clear, after reviewing the claims and the specification of a patent, “the court *may* also consider the prosecution history of the patent, *if in evidence.*” Id. (emphasis added). There is no requirement that a court review

a patent's prosecution history when construing claims and certainly no requirement that Dr. Soderman do so. Of course, if Complaint Counsel believe that there is something in the prosecution history to contradict Dr. Soderman's opinion, they are free to cross-examine him with it.

2. Dr. Soderman Could Not Be Expected to Compare Claims to Accused Devices Given that Professor Jacob Failed to Design any Devices.

As discussed above, Professor Jacob's testimony regarding feasible alternatives may be inadmissible because he simply describes certain alternative features without actually designing a DRAM or indicating how those alternative features would be implemented in the DRAM. However, given the nature of Professor Jacob's report, it is hard to see how Dr. Soderman could do more than "to review the patent claims and to review the description of the alternative described in the report of [Professor Jacob]," Soderman Memo. at 8, and arrive at reasonable opinion about whether that feature, once incorporated in an actual device, would or would not infringe the claim.

3. Dr. Soderman Appropriately Testified as an Engineer, Not as a Legal Expert.

As quoted in Complaint Counsel's motion, when asked about certain legal issues relating to claim interpretation, Dr. Soderman stated that he was not a lawyer and that he would defer such questions to a legal expert. Soderman Memo. at 8-9. Complaint Counsel seize on this testimony as evidence that Dr. Soderman "believed himself unqualified" to offer an infringement opinion. *Id.* at 8. In fact, Dr. Soderman repeatedly explained that he was interpreting the claims "as an engineer." Soderman Depo. at 282:9-24; accord id. at 277:16-24 [Tab 3]. That is precisely what needs be done since the claims are to be

interpreted from the vantage point of a person of skill in the art. Dr. Soderman's testimony that he would defer legal issues to a patent attorney is immaterial; his testimony that as an engineer he would understand the claim terms as broad enough to encompass certain of Professor Jacob's proposed alternatives is highly probative on the question of infringement, and Dr. Soderman's unchallenged competence as an engineer makes that testimony reliable.⁴

B. Rambus Is Entitled To Rely on the Presumption of Validity With Respect to its Issued Patents.

Complaint Counsel next assert that Dr. Soderman should have performed an analysis of the validity of the patents that he cites in order to support his infringement analysis. Every patent, however, "shall be presumed valid. . . . The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity." 35 U.S.C. § 282. Rebutting the presumption of validity requires clear and convincing evidence. See Apple Computer, Inc. v. Articulate Systems, Inc., 234 F.3d 14, 25 (Fed. Cir. 2000). Since Complaint Counsel have presented no evidence of the invalidity of Rambus's patents, much less clear and convincing evidence, Rambus is entitled to the benefit of the presumption without introducing any evidence in support of validity. See Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1570-71 (Fed. Cir. 1986) ("Under the

⁴ Complaint Counsel also quote out of context some of Dr. Soderman's testimony to suggest that he was unable to answer which claims of the '152 patent would be infringed by one of Professor Jacob's proposed alternatives. In fact, Dr. Soderman testified that it was his opinion that claim 1 of the '152 patent would be infringed. Soderman Depo. at 278:8-12 [Tab 3]. Dr. Soderman testified that he would be able to tell what other claims might be infringed if he were given an opportunity to review them and refresh his recollection. Id. at 274:8 – 276:12 [Tab 3].

law set by Congress, a jury or a court may reach a conclusion that a patent remains valid *solely* on the failure of the patent challenger's evidence to convincingly establish the contrary. A patent being presumed valid at birth, § 282, a patentee need submit *no* evidence in support of a conclusion of validity by a court or a jury.”)

In a footnote, Complaint Counsel argue, citing no relevant authority, that the usual presumption of patent validity should not apply because: “This is an antitrust case, not a patent infringement case . . . and Rambus raises its patent arguments as a defense to allegations of anticompetitive conduct. Assuming that defense is appropriate, Rambus carries the burden of establishing it” Soderman Memo. at 4, n.1. There are several responses to this.

First, the statutory presumption is clear: “A patent shall be presumed valid.” There is no exception for defenses raised in antitrust cases.

Second, the statutory presumption is based in part on deference to the patent examiner who allowed the patent’s claims. See A1-Site Corp. v. VSI International Inc., 174 F.3d 1308, 1323 (Fed. Cir. 1999) (“The presumption of validity under 35 U.S.C. § 282 carries with it a presumption that the Examiner did his duty and knew what claims he was allowing.”). Complaint Counsel have offered no rationale that would undercut this basis for the presumption in antitrust cases.

Third, even if the burden of establishing infringement of its patents as a defense to antitrust allegations were on Rambus, that could not possibly vitiate the statutory presumption. After all, the burden of establishing infringement is on the patentee in a patent infringement suit also; nevertheless, the patentee is entitled to the presumption.

Fourth, and perhaps most importantly, the burden is not on Rambus here. Complaint Counsel have alleged as part of their case-in-chief that viable alternative technologies exist to Rambus's patented technologies. Of course, if Rambus's patents also covered those technologies, they would not be alternatives at all. Showing that there is no patent coverage over its proposed alternatives is, therefore, properly part of Complaint Counsel's burden in this case.

In the same footnote, Complaint Counsel cite Fromson v. Advance Offset Plate, Inc., 755 F.2d 1549, 1555 (Fed. Cir. 1985) for the proposition that "the presumption of validity under 35 U.S.C. § 282 is a procedural device, not substantive law." Soderman Memo. at 4, n. 1. It is unclear what relevance this has to Complaint Counsel's argument – whether procedural or substantive, the presumption of validity clearly applies here. As the Fromson court itself stated: "Patents are born valid and remain so until proven otherwise." 755 F.2d at 1555, n.1.

C. Dr. Soderman's Testimony Regarding Patent Infringement is Highly Probative and Would Not Be Unduly Time-Consuming.

Finally, Complaint Counsel argue that any "minimal" probative value of Dr. Soderman's infringement testimony would be outweighed by the time-consuming nature of four "mini-trials" on the patents raised by Dr. Soderman. Soderman Memo. at 12-13. To the contrary, as discussed above, Dr. Soderman's testimony is highly probative since it shows that many of the so-called "alternative" technologies proposed by Professor Jacob are not alternatives at all. Remarkably, Complaint Counsel assert that "because no standard currently incorporates the proposed alternatives, [Dr. Soderman's] comparison of the claims to the alternatives was necessarily hypothetical and speculative." Soderman

Memo. at 12. If it is true that no infringement analysis is possible because of the uncertain nature of the proposed alternatives, however, then it is Professor Jacob's alternatives that are "hypothetical and speculative" and Professor Jacob's testimony must necessarily be excluded also.

If Professor Jacob's testimony on alternatives is admitted, there is no rationale for excluding Dr. Soderman's testimony that some of those alternatives would be covered by Rambus patents. Moreover, this evidence would not be as time-consuming as Complaint Counsel fear. Evidence regarding infringement would consist of Dr. Soderman's testimony and, presumably, Professor Jacob's attempts to rebut that testimony as he did in his rebuttal expert report. Validity would not be an issue since Rambus has the benefit of the presumption and none of Complaint Counsel's rebuttal expert reports raise any evidence, much less clear and convincing evidence, to rebut it. It certainly cannot be said that the probative value of this evidence is "*substantially outweighed* by . . . considerations of undue delay." 16 C.F.R. § 3.43(b) (emphasis added); *see also United States v. Terzadomadruga*, 897 F.2d 1099, 1117 (11th Cir. 1990) (stating that exclusion under Federal Rule of Evidence 403, which has the same language as § 3.43(b), "is an extraordinary remedy which should be used only sparingly since it permits the trial court to exclude concededly probative evidence").

IV. Mr. Fliesler's Testimony Regarding Patent Infringement Is Reliable and Admissible.

Mr. Fliesler is expected to testify in part that Rambus's U.S. Patent No. 6,470,405 would be infringed by products built to JEDEC's DDR SDRAM standard. This testimony is important because the '405 patent is outside the family that Complaint Counsel allege

should have been disclosed by Rambus. Thus, if Rambus has additional patents, concededly not subject to any disclosure duty, that would be infringed by DDR SDRAMs, any market power that Rambus may have would exist regardless of whether or not Rambus violated the JEDEC disclosure duty. Complaint Counsel do not deny that the testimony is probative for just this reason and do not assert that Mr. Fliesler is unqualified, but instead attack the reliability of Mr. Fliesler's testimony on grounds similar to the those discussed above with respect to Dr. Soderman.

Although, unlike Dr. Soderman, Mr. Fliesler is not a person of ordinary skill in the art to which the patent pertains, Mr. Fliesler has been prosecuting patents and working with the inventors of patents relating to DRAMs and other sorts of semiconductors over the last 25 years. Deposition of Martin Fliesler ("Fliesler Depo.") at 193:5 – 198:17 [**Tab 4**]. This extensive personal experience gives Mr. Fliesler insight into what persons of skill in the art mean by various terms and allows Mr. Fliesler to testify reliably as to infringement of the '405 patent.

In a gross misreading of Mr. Fliesler's testimony, Complaint Counsel accuse him of circular reasoning, namely of simply assuming that DDR SDRAMs contained elements corresponding to the limitations of claim 1 of the '405 patent. Soderman Memo. at 7. Mr. Fliesler's analysis compared claim 1 of the '405 patent to the JEDEC standards for DDR SDRAM. As Mr. Fliesler recognizes, only products, not standards can infringe patent claims. Thus, Mr. Fliesler assumed that a device had actually been built that contained the relevant features described in the standards. Fliesler Depo. at 187:19 – 188:23 [**Tab 4**]. Mr. Fliesler then concluded that such a device would infringe the claim.

Complaint Counsel also object to Mr. Fliesler's testimony on the ground that he failed to perform a validity analysis in connection with the '405 patent. However, for the reasons set forth above, no such analysis is necessary. Rambus is entitled to a presumption of the patent's validity, and Complaint Counsel have produced nothing to challenge that presumption. Mr. Fliesler's testimony regarding the '405 patent is probative and reliable, and should be admitted.

CONCLUSION

For the reasons set forth above, Rambus respectfully requests that Your Honor deny Complaint Counsel's motions in limine regarding the testimony of Michael Geilhufe, Donald Soderman, and Martin Fliesler.

DATED: April ____, 2003

Respectfully submitted,

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UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION

_____)
In the Matter of)
)
RAMBUS INCORPORATED,) Docket No. 9302
)
a corporation.)
_____)

CERTIFICATE OF SERVICE

I, Jacqueline M. Haberer, hereby certify that on April 11, 2003, I caused a true and correct copy of *Respondent Rambus Inc.'s Combined Opposition to Complaint Counsel's Motion In Limine Regarding the Testimony of Michael Geilhufe and Motion In Limine Regarding the Testimony of Donald Soderman and Martin Fliesler* to be served on the following persons by hand delivery:

Hon. Stephen J. McGuire
Chief Administrative Law Judge
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Jacqueline M. Haberer

UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION

_____)	
In the Matter of)	
)	
RAMBUS INC.,)	Docket No. 9302
a corporation,)	
_____)	

CERTIFICATION

I, Jacqueline M. Haberer, hereby certify that the electronic copy of *Respondent Rambus Inc.'s Combined Opposition to Complaint Counsel's Motion In Limine Regarding the Testimony of Michael Geilhufe and Motion In Limine Regarding the Testimony of Donald Soderman and Martin Fliesler* accompanying this certification is a true and correct copy of the paper version that is being filed with the Secretary of the Commission on April 11, 2003 by other means:

Jacqueline M. Haberer
April 11, 2003