PUBLIC

UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION

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

BRIEF OF APPELLEE AND CROSS-APPELLANT RAMBUS INC.

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TABLE OF CONTENTS

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF AUTHORITIES

Page(s)

<u>FEDERAL CASES</u>

Page(s)

TABLE OF AUTHORITIES
(continued)

Page(s)

Page(s)

TABLE OF AUTHORITIES
(continued)

Page(s)

Page(s)

Page(s)

FEDERAL REGULATIONS

TREATISES

LAW REVIEW ARTICLES

Page(s)

OTHER AUTHORITIES

Page(s)

I. INTRODUCTION AND SUMMARY OF ARGUMENT

Respondent Rambus Inc. ("Rambus") respectfully submits this brief in connection with Complaint Counsel's appeal, and Rambus's cross-appeal, from the Initial Decision by Judge McGuire.[1]

In their Opening Statement at the outset of trial, Complaint Counsel stated that "[w]e are here because Rambus simply refused to play by the rules." Trial, Tr. 12. After a three-month trial that involved 44 live witnesses, over 1900 admitted exhibits, and almost 12,000 pages of trial transcript, the evidence is overwhelming that Rambus broke no rules. The evidence also shows that if Rambus possesses market power, as Complaint Counsel contend, it does so as the result of the inventive efforts of Rambus's founders, Drs. Farmwald and Horowitz, which efforts have resulted in the grant of numerous valid patents by the United States Patent Office.

Complaint Counsel do not contend that Rambus's patents are invalid or were obtained improperly. They nevertheless sought below an order that would deny Rambus the right to continue to collect royalties under license agreements it has signed, prevent it from suing companies that infringe its patents, and award to all DRAM manufacturers the perpetual free use of Rambus's patents for devices standardized by JEDEC. Complaint Counsel sought this extraordinary relief in order to enforce what they alleged was JEDEC's patent disclosure policy – a policy they said required the disclosure of patents, patent applications and intentions to file or amend patent applications that in

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[1] The following abbreviations are used throughout this brief:

IDF	- Initial Decision, Findings of Fact
IDC	- Initial Decision, Conclusions of Law
RPF	- Rambus Inc.'s Proposed Findings of Fact
RRPF	- Rambus Inc.'s Responses to Complaint Counsel's Proposed Findings
CCPF	- Complaint Counsel's Proposed Findings of Fact
CCRPF	- Complaint Counsel's Responses to Rambus Inc.'s Proposed Findings
CCAB	- Complaint Counsel's Appeal Brief.

any way related to matters discussed at JEDEC.

After many months of considering the testimony and documentary evidence on these issues, and after preparing over 1,650 individual findings of fact.
Judge McGuire concluded that Complaint Counsel had failed to meet their burden of proof on each essential element of their claims. Judge McGuire found, for example, that:

! Complaint Counsel failed to prove that JEDEC's patent policy required disclosure of a member's intellectual property interests; the evidence, including JEDEC's board minutes and the Commission's own records, conclusively showed instead that disclosure was voluntary;

! Complaint Counsel failed to prove that the disclosure duty they posited arose *prior* to JEDEC balloting (a showing they needed to make because virtually none of the presentations they point to were ever balloted); indeed, their own witnesses testified to the contrary;

! Complaint Counsel fail

! Complaint Counsel failed to pr

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alleged conduct; and

- Complaint Counsel failed to prove that the DRAM industry was now "locked in" and could not avoid the use of Rambus's technologies. Indeed, the evidence showed quite the opposite – and even included emails by JEDEC members that used the phrase "I am *not* locked in."

Complaint Counsel bore the burden of proof on all of these issues, and more; a failure to meet their burden on *any* of them required dismissal. Judge McGuire found that Complaint Counsel failed to meet their burden as to *all* of them. As demonstrated in this brief and in Judge McGuire's Initial Decision, this conclusion was correct in all respects and should be affirmed.

II. STATEMENT OF THE FACTS

A. Introduction

Complaint Counsel ask the Commission to ignore all of the findings of fact contained in Judge McGuire's Initial Decision. According to Complaint Counsel, because the Initial Decision is "riddled . . . with factual error" and "cannot assist the Commission," the Commissioners should "set it aside entirely" in deciding this case. CCAB 7. Complaint Counsel ask the Commission to believe that every single one of Judge McGuire's findings is erroneous, even though their brief fails to challenge *any* single finding or explain why it is in error.

The Commission's rules do not permit a party simply to say "all of the ALJ's findings are wrong. Please adopt my proposed findings." Rules 3.51-3.52 instead require a party appealing from an Initial Decision to identify its specific objections in its opening brief. Moreover, because of both fundamental fairness and judicial efficiency concerns, the importance of such a requirement grows, not shrinks, as trials increase in length and as the issues at stake grow in importance and complexity. There is thus no precedential value, and great danger to the efficiency and credibility of the administrative process, in an argument by agency counsel that an ALJ's months-long, painstaking

ideas that they proceede

stipulated prior to and during trial that they were not in any way challenging the PTO's determination that Rambus's founders had met all of the statutory prerequisites to the issuance of valid U.S. patents, necessarily including the determination by the PTO that the inventions in question were described in the original '898 application. In other words, Complaint Counsel have acknowledged for purposes of this case that Rambus's founders (*not* JEDEC) first conceived of the inventions in question. 35 U.S.C. § 112.

On April 16, 1991, Rambus filed an international patent application pursuant to the Patent Cooperation Treaty (the "PCT application"). RPF 659-61. The PCT application was published on October 31, 1991. *Id.* The specification contained in the application was identical to that contained in the '898 application and described the four inventions at issue in this case. IDF 186-206.

3. The Scope Of Rambus's Subsequent Patent Applications

Despite the breadth of the specification contained in Rambus's '898 and PCT applications, Rambus did not in the early and mid-1990's file *claims* seeking broad patent coverage over the use of various features in any DRAM device. In fact, Complaint Counsel have formally stipulated that as of January 1996, almost six years after the '898 application was filed, Rambus held no issued U.S. patents that were required for the manufacture or use of *any* device manufactured in compliance with a JEDEC standard. IDF 939. Judge McGuire, like the Federal Circuit, further found that as of the time of Rambus's departure from JEDEC, Rambus had no claims in any patent or pending U.S. patent application that were required for the manufacture or use of any JEDEC-compliant device. IDF 939-966; IDC 275-7; *Rambus Inc. v. Infineon Technologies AG*, 318 F.3d 1081, 1103-05 (Fed. Cir. 2003) ("*Infineon*"). Therefore, even if Rambus was obligated as a JEDEC member to disclose patents or patent applications at JEDEC meetings, Judge McGuire correctly concluded that Rambus had nothing to disclose.[4]

C. The Manuals And Policies That Governed JEDEC Meetings Did Not Require Disclosure Of Intellectual Property Interests

Judge McGuire found that the JEDEC patent policy during the 1992-1996 time period (when Rambus was a member) did *not* require disclosure of patents, patent applications or intent to file or amend patent applications by JEDEC members, and instead “encourag[ed]” the “vol in effect throughout the pertinent time period. CX204. Complaint Counse patents is simply wrong. *See*

The language in these two manuals, which was routinely shown at JEDEC

Even before the ANSI Patent Policy was officially endorsed by the EIA in 1995, the ANSI Patent Policy Guidelines were circulated to members of the JC 42.3 subcommittee because "they provided insight into the proper interpretation of the EIA and JEDEC patent policy." IDF 630-640; Kelly, Tr. 1950; CX3538 at 1; CX34 at 19. It was undisputed at trial that when the ANSI Guidelines were circulated to JC 42.3 members in 1994, the relevant language of the EIA patent policy was essentially identical to that of the ANSI patent policy. IDF 642; Kelly, Tr. 2077-8.

4. The EIA, On Behalf Of JEDEC And Its Other Standardization Activities, Informed The Federal Trade Commission In 1996 That Intellectual Property Disclosure Was "Voluntary" Under EIA Rules

The Commission need not rely solely on the language of the various EIA manuals and ANSI guidelines to understand how the EIA interpreted its patent policy. In January 1996, in response to the Commission's request for public comments regarding the proposed consent decree in the *Dell* case, the EIA submitted written comments to the Commission that described EIA's patent policy. IDF 673; RX669 at 1. The EIA's January 1996 comments to the Commission were submitted on behalf of the EIA and its unincorporated divisions and departments such as JEDEC. IDF 673; RX669 at 5; Kelly, Tr. 2094. In fact, the comment letter *expressly* refers to JEDEC's standardization efforts. RX669 at 1. The comment letter was approved by both the EIA's General Counsel and by its Vice-President for Standards and Technology. RX669 at 5; Kelly, Tr. 2092-3.

Consistent with the statement in th

position. The words used by the EIA were clear and unambiguous. "Voluntary disclosure" does not mean "required disclosure." Instead, according to the dictionary selected by the EIA as its official reference guide, "voluntary" means an act "performed, made, or given of one's own free will," as well as an act performed "without any present legal obligation to do the thing done or any such obligation that can accrue from the existing state of affairs. . . ." *Webster's Third New International Dictionary Unabridged* (1986), p. 2564.[6]

The Commission staff certainly understood that the EIA patent policy did not require the disclosure of intellectual property. In July 1996, FTC Secretary Donald Clark responded to the EIA's comment letter and stated that:

> "EIA and TIA, following ANSI procedures, encourage the early, voluntary disclosure of patents, but do not require a certification by participating companies regarding a potentially conflicting patent interest."

IDF 676; RX740 at 1.[7]

Secretary Clark also pointed out that because the EIA policy differed from the patent policy at issue in the *Dell* matter, the "expectations of participants" regarding intellectual property disclosure would differ. *Id.* at 2. The statement of the Commission's views that accompanied the May 1996 release of the *Dell* consent order made this same point:

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[6] The EIA had selected Webster's Third New International Dictionary as its official reference guide in 1990. JX54 at 3.

[7] The record evidence shows that the EIA was not alone in communicating the voluntary nature of patent disclosure policies within standards-setting bodies. The IEEE Standards Board, which represented a membership of more than 300,000 engineers and which had published 900 standards in the electrical engineering field, also submitted a comment letter to the Commission in January 1996. RX668 at 2. The IEEE letter stated that disclosure by IEEE members of intellectual property interests was "voluntary," and it urged the Commission *not* to impose mandatory disclosure obligations on participants in standards-setting organizations. *Id*. at 5.

> "ANSI does not require that companies provide a certification as to conflicting intellectual property rights. Therefore, its policy, unlike VESA's, *does not create an expectation that there is no conflicting intellectual property*."

In the Matter of Dell Computer Corp. ("Dell"),121 F.T.C. 616,

, 1996 FTC LEXIS 291 at *18 n.6 (1996) (emphasis added).

Upon receiving Secretary Clark's letter, JEDEC Secretary Kenneth McGhee sent a memo to all "JEDEC Council Members and Alternates" forwarding Clark's letter and repeating that ANSI and EIA "encourage early, voluntary disclosure of any known essential patents." IDF 678; RX742 at 1.

In light of this highly credible, contemporaneous evidence of the EIA's own interpretation of its patent policies, it is not surprising that Judge McGuire found that when Rambus was a JEDEC member, the disclosure of relevant patents was voluntary, not mandatory. IDF 679.

5. Complaint Counsel's Reliance On JEDEC Manual 21-I Is Unjustified

Complaint Counsel's opening brief ignores the relevant language in the EIA Legal Guides, ignores the EIA's express adoption of the ANSI Patent Policy, and ignores the EIA's own contemporaneous interpretation of its patent policy. In support of their argument that patent disclosure was mandatory, Complaint Counsel rely almost entirely upon a single JEDEC manual. CCAB 17-18, 47-48. The manual to which Complaint Counsel point is JEDEC manual 21-I, which bears an October 1993 publication date. CX208.[8] In language that Complaint Counsel cite repeatedly, the 21-I

[8] Complaint Counsel fail to mention that JEDEC manual 21-H, which was in effect when Rambus joined JEDEC in 1992 and when the SDRAM standard was passed in 1993, provides that "JEDEC standards are adopted *without regard* to whether or not their adoption may involve patents on articles, materials or processes." CX205A at 11 (emphasis added). The 21-H manual makes no other reference to intellectual property. Similarly, when Rambus filled out an application to join JEDEC, the application form said nothing about intellectual property disclosure. CX601.

requisite EDEC approval had been sought or obtained. Moreover, although EIA General Counsel Kelly testified during the first few weeks of the three-month-long trial that he had access to the minutes of EDEC, Complaint Counsel chose *not* to call him in their rebuttal case to testify about those minutes. Judge McGuire thus correctly determined that "Complaint Counsel did not provide sufficient evidence to the fact that IBM's JEDEC representative, who also happened to chair both the JC 42.3 subcommittee and the JEDEC Council, informed JEDEC members on several occasions that IBM would not disclose its intellectual property, and in particular its patent applications, at JEDEC meetings. JX15 at 6; RX420 at 2; JX18 at 8; JX19; Kelley, Tr. 2715-16; RPF 197. In the December 1993 meeting, for instance, the IBM representative stated that "in the future they will not come to the Committee with a list of applicable patents on standards proposals. It is up to the user of the standard to discover which patents apply." IDF 693; JX 18 at 8. A few months earlier, the IBM representative had similarly stated in writing that "IBM Intellectual Property Law attorneys have informed me that we will not use JEDEC as a forum for discussing" intellectual property rights. IDF 692; RX420 at 2. IBM explained that it was "the responsibility of the producer to evaluate the subject and to work out the proper use of rights." *Id*. After IBM's statements appeared in the JEDEC meeting minutes, no IBM patents or patent applications were added to the "patent tracking list" maintained by JC 42 Chairman Jim Townsend prior to Rambus's departure from JEDEC. IDF 694.

In addition, in March 1994, after the 21-I manual had supposedly become effective, JEDEC Secretary Ken McGhee prepared a memorandum to JC 42 Chairman Jim Townsend that transmitted the advice of EIA's legal counsel. According to McGhee, the legal counsel had said that "he didn't think it was a good idea to require people at JEDEC standards meetings to sign a document assuring *anything* about their company's patent rights. . . ," for four reasons:

> "(1) It would have a chilling effect at future meeting.
> (2) The general assurance wouldn't be worth that much anyway.
> (3) It needs to come from a VP or higher within the company – engineers can't sign such documents.
> (4) It would need to be done at each meeting slowing down the business at hand."

RX486 at 1 (emphasis added). Secretary McGhee's memorandum shows that, even after the publication of the 21-I manual, it was quite clear to EIA counsel and to Mr. McGhee that neither EIA nor JEDEC had imposed a mandatory disclosure obligation on its members. If asking a JEDEC representative to sign a statement regarding patent rights would have a "chilling effect," how can it be possible that each representative was *already* under an *obligation* to disclose patents or patent applications or risk forfeiting those rights?[10]

In addition, numerous patents and patent applications relating to JEDEC standards were not disclosed to JEDEC, even when named inventors were in the room when the proposed standard was being discussed. IDF 708-717; RPF 239-73. Although one might explain a few instances of non-disclosure as the result of inadvertence, or perhaps even as the result of a deliberate desire to evade the "obligations" supposedly imposed by the 21-I manual, the extent of such non-disclosures weighs against such explanations. The evidence of non-disclosure is consistent only with the conclusion that JEDEC members understood that the disclosure of patents was encouraged, but not mandatory.

Finally, although not contemporaneous with Rambus's membership in JEDEC, Secretary McGhee informed JEDEC 42.4 members in February 2000 that:

> "[t]he JEDEC patent policy concerns items that are known to be patented that are included in JEDEC Standards. Disclosure of patents is a very big issue for Committee members and *cannot be required of members at meetings*."

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[10] McGhee's March 1994 memo provides additional support for Secretary Clark's 1996 statement that the EIA patent policy differed from that of the standards-setting body involved in the *Dell* matter. IDF 676; RX740 at 1. In the *Dell* matter, the standards-setting body required participants to sign written statements that their company had no intellectual property rights in the technology being considered for standardization. RX740 at 2; *Dell*, 121 F.T.C. at 617. JEDEC Secretary McGhee's March 1994 memo reveals a deliberate policy decision by the EIA that no such statements should be required of JEDEC members. RX486 at 1.

IDF 684; RX1582 at 1 (emphasis added). McGhee's email went on to state that a

6. JEDEC's Desire To Have "Open Standards" Does Nothing To Satisfy Complaint Counsel's Burden Of Proof

Although the parties agree that JEDEC desired "open standards," they disagree about the meaning of that phrase. Complaint Counsel suggest that an "open" standard is a standard that contains no undisclosed intellectual property. CCAB 44. The overwhelming weight of the evidence is to the contrary and shows that the phrase "open standards" was uniformly understood to mean standards that could be practiced by all potential users, with intellectual property licenses available on reasonable terms.

Numerous contemporaneous documents, and the evidence of JEDEC's actual practice, make clear that "open" standards may, and often do, include patented technologies. The EIA's January 1996 letter to the Commission, for example, confirmed that an "open" standard is one where necessary patent licenses are available to all comers on reasonable terms. RX669 at 4 ("the important issue is the license availability to all parties on reasonable, non-discriminatory terms"). EIA General Counsel John Kelly similarly explained in a May 2000 letter to a prospective member that "JEDEC standards are open (in terms of IP *licensing*). . . ." (CX419 at 1) (emphasis added). Mr. Kelley corroborated this view in his testimony at trial:

> "Q. And you say, 'open standards by definition are free of restrictive intellectual property or IP rights,' correct?
>
> A. Yes, sir.
>
> Q. And by 'restricted' you mean that there's no objection to having features [in] standards that are protected by valid patents as long as they're available to all comers on reasonable and non-discriminatory terms?
>
> A. Yes, sir."

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contemporaneous email describing the Board's discussion is fully consistent with, and corroborates, the statement in the Board minutes that disclosure of patent applications was "not required." *See* RX1582 at 1 (McGhee email stating that "[d]isclosure of patents . . . cannot be required of members at meetings.").

Kelly, Tr. 2072.[12]

Any other policy – *e.g.*, a policy designed to *avoid* patents because of possible license fees – would hinder innovation and thwart progress, as the EIA recognized when it told the Commission in January 1996 that

> "[a]llowing patented technology in standards is procompetitive. . . . By allowing standards based on patents, American consumers are assured of standards that reflect the latest innovation and high technology [that] the great technical minds of this country can deliver."

RX669 at 2-3.

The IEEE Standards Board also spoke to this issue in its own January 1996 letter to the Commission :

> "Of equal concern is the FTC statement that 'open, industry-wide standards also benefit consumers because they can be used by everyone wition and h0 13.02 72 744 Tm0 g1.1473.9y g o 2

> *ballot voting sheets for information only and was not going to be checked to see who said what*."

IDF 656; CX3 at 6 (emphasis added). This formal committee response is consistent only with an interpretation that the language on the ballot was intended to *encourage*, but not *require*, the disclosure of patents.

Complaint Counsel also rely upon a memorandum prepared "[f]rom time to time" by Jim Townsend, the Chair of the JC-42 committee, that asked *certain* JEDEC members to provide their company's position regarding certain listed patents or patent applications. CCAB 48. Complaint Counsel fail to reveal that Mr. Townsend *never* addressed his memorandum to Rambus. RRPF 371. The memorandum thus undercuts the proposition that Rambus had any duty to disclose.

Complaint Counsel also rely upon documents relating to the so-called "Quad CAS" dispute. CCAB 45-46. In that incident, a TI representative had failed to disclose issued patents (not patent applications) that covered technologies that TI was *itself* proposing to JEDEC. Sussman, Tr. 1335. Rambus did not have issued patents while it was a JEDEC member that read on any standard, and it never promoted a technology at JEDEC, so the Quad Cas dispute is irrelevant. Moreover, the dispute was resolved when TI agreed to license its patents to all comers for a reasonable royalty. JX25 at 3; Kellogg, Tr. 5220-26. It is thus evident that, as the EIA told the Commission in January 1996, "the important issue is the license availability to all parties on reasonable non-discriminatory terms," RX 669 at 4, not the timing of disclosure.

Finally, Complaint Counsel point to the after-the-fact testimony of interested parties – officers and employees of DRAM manufacturers or other companies who might need to license Rambus's patents. Judge McGuire considered that testimony and rejected it. In so doing, he gave "greater weight . . . to contemporaneous documents than to the after-the-fact testimony by interested witnesses," IDC 264, 268-9, *citing United States v. United States Gypsum Co.*, 333 U.S. 364, 365 (1947). Although

Complaint Counsel challenge Judge McGuire's application of the *Gypsum* rule, it mirrored Commission precedent. *See, e.g., In the Matter of Timken Roller Bearing Company*, 58 F.T.C. 98, 1961 FTC LEXIS 354 at *18 (1961) ("Where, as here, oral testimony given several years later is not consistent with contemporaneous written statements, such oral testimony can be given little weight."). Application of the rule is especially appropriate here in light of the importance of widespread participation in standards-setting bodies. As the Federal Circuit explained in *Infineon*, any "after-the-fact morphing of a vague, loosely defined policy to capture actions not within the scope of that policy . . . would chill participation in open standards-setting bodies." *Infineon*, 318 F.3d at 1102 n.10.

8. If Any Disclosure Was Required, It Was Not Required Until The Time Of Balloting

Even if the Commission were to conclude that JEDEC members were obligated to disclose some intellectual property interests at JEDEC meetings while Rambus was a member, it should conclude, as Judge McGuire did, that no such disclosure was required until a proposal was balloted for approval. IDF 784-785.

> "If disclosure of issued patents is expected too early in the process – i.e., before the draft standard has reached a level of stability – more patents may be disclosed than those that are essential, since it may be too early to determine exactly those that will be required for implementation. This problem would become even larger if, as some have suggested, patent applications were to be treated in the same manner as issued patents. . . . Standards committees realize that until a patent has been issued there is very little value to disclosure since the scope of valid patent claims has not been determined."

RX2011 at 5.

After considering the evidence and testimony of each witness on this issue, Judge McGuire correctly found that disclosure of a JEDEC member's intellectual property, if required at all, was only required at the time of balloting. IDF 784-785.[13]

9. If Any Disclosure Was Required, It Was Triggered Only By The Actual Knowledge Of JEDEC Participants

Judge McGuire determined that any disclosure obligations that existed under the JEDEC patent policy were *only* triggered by "actual knowledge" on the part of the JEDEC representative or participant about a patent or patent application. IDC 274; IDF 780-81, 903-910. This finding was based on the testimony of Complaint Counsel's witnesses and is not challenge

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applications. IDF 772-774; IDC 269.[14] Although Complaint Counsel tell the Commission that Judge McGuire "ignored" any contrary evidence and testimony in arriving at this conclusion, CCAB 5, the Initial Decision shows instead that he considered that evidence and testimony (*see* IDF 610-632, 731-752) and rejected it, after finding that the witnesses in question were not credible. IDF 748; IDC 270 ("the after-the-fact testimony of interested witnesses" on this issue "is not persuasive and is contradicted by the bulk of the contemporaneous evidence."). Judge McGuire did not abuse his discretion in making this credibility determination; his conclusion that the policy did not

JEDEC, it has no duty to disclose anything about its intellectual property. *See* IDF 982, *citing* testimony by JEDEC Council Chairman Gordon Kelley. Accordingly, it is undisputed that after Rambus resigned from JEDEC in 1996, it had no duty under any interpretation of EIA/JEDEC policies to disclose anything. This is particularly important

b. The ’327 Patent Does Not Cover Any Technology

There are many other reasons why Rambus was not obligated to disclose the ’327 patent, including: (1) disclosure of patents was voluntary, rather than mandatory, *see* Section II.C; (2) Complaint Counsel failed to prove that Rambus’s JEDEC representative, Mr. Crisp, had any actual knowledge that the claims of the ’327 patent were essential to any JEDEC standard (or proposed standard), *see* section II.C.9; and (3) none of the presentations in question were ever balloted. *See* IDF 951, 954, 956.

c. The ’327 Patent Was Known To Numerous JEDEC Members Long Prior To The Balloting Of Dual Edge Clocking At JEDEC

Complaint Counsel apparently contend that if Rambus had disclosed the existence of the ’327 patent to JEDEC, JEDEC members would likely have insisted on an alternative to dual edge clocking when voting on the DDR SDRAM standard. CCAB 21, 89-100. It is undisputed, however, that numerous DRAM manufacturers were well aware of the ’327 patent *before* the DDR SDRAM standard was adopted. In a July 1998 email, a Hynix executive sent “a list of Rambus patents” to a large group of JEDEC representatives and DRAM engineers at such companies as Siemens, IBM33 8nv1n,e

be directly at odds with the opinion of the Federal Circuit, the Court of Appeals charged with construing and applying patent claims. The Federal Circuit stated that:

> "This court has examined the claims of the cited applications [including the '961 and '651 applications] as well as the relevant portions of the SDRAM standard. Based on this review, this court has determined that substantial evidence does not support the finding that these applications had claims that read on the SDRAM standard."

Infineon

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meeting. In March 1998, current JEDEC Chairman Desi Rhoden wrote a lengthy email to all JC 42.3 members in which he "recap[ped]" JEDEC's DDR SDRAM standardization process. Mr. Rhoden stated:

> "[W]e could have finished the DDR standard sooner *if only we had started earlier*. Let us recap what has transpired with DDR:
>
> 1. A lot of private and independent work *outside of JEDEC* for most of 1996 (here is where we missed a good opportunity to start early).
>
> 2. December 96 – A single overview presentation of a DDR proposal at a JC 42 meeting."

CX375 at 1-2 (emphasis added); RPF 402-04.

When questioned at trial about his email, Mr. Rhoden contended it was simply the *name* "DDR" that was coined in December 1996, and he testified that work on the new standard had been going on for years prior to that date. CCRPF 402, 405, 407, 409. Mr. Rhoden's attempted explanation is absurd. He could not have intended to convey in his March 1998 email that JEDEC "could have finished the DDR standard sooner" if only the *name* "DDR" had been coined earlier. Judge McGuire correctly found this explanation not to be

1996.” RPF 413.

The Commission should conclude, as the *Infineon* trial judge, the entire Federal Circuit panel, and Judge McGuire each concluded, that Rambus had ceased to be a JEDEC member before JEDEC began its work on the DDR SDRAM standard, and that Rambus had no disclosure obligations with respect to that standard.

f. Prior To Its Withdrawal From JEDEC, Rambus Had No Patent Applications That Covered Any Feature Contained In The DDR SDRAM Standard

Even assuming that, as Complaint Counsel contend, JEDEC had begun the DDR SDRAM standardization process before Rambus left JEDEC, there are only two applications that Complaint Counsel allege should have been disclosed by Rambus in connection with the DDR SDRAM standard: the ’692 application and the ’646 application. CCAB 14-15 and n.11. The claims of these applications are *not* alleged to cover any feature in the *actual* JEDEC standard, but instead are alleged to cover certain unballoted JEDEC *presentations* concerning on-chip PLL and dual-edge clocking.

Complaint Counsel allege that certain claims of the ’692 application cover a September 1994 JEDEC presentation made by NEC. The claims cited by Complaint Counsel do not, however, read on that presentation. Indeed, the testimony of Complaint Counsel’s own experts show that each of the claims contains limitations that are not found in the NEC presentation, and, consequently, would not cover that presentation. IDF 957; RPF 373-76.

Moreover, Claim 151 of the ’646 application, the only claim from that application that Complaint Counsel raise, was not pending at the time of any of the allegedly triggering presentations. The claim had been rejected by the PTO in January 1995, a few months after it was filed, and it was subsequently cancelled by Rambus. RPF 379-80. For these reasons alone, Complaint Counsel failed to show there was any duty to disclose this claim. Moreover, as discussed above in connection with the ’327 patent, the presentations cited by Complaint Counsel contain no implementation details. *See* Section II.D.1.b. The claims of the ’646 application (and the ’327 patent) are implementation-specific. RPF 382. That means that a device would infringe the patent only if it employed all of the implementation details and limitations set out in the patent. *Id.* Because the cited presentations do not contain the information about implementation that would be required to determine if claim 151 of the ’646 application was in any way infringed by anything described in the presentations, they are irrelevant here. RPF 381-82.

g. Rambus’s Alleged Destruction Of Documents Does Nothing To Satisfy Complaint Counsel’s Burden Of Proof

Complaint Counsel argue that Rambus implemented a document retention policy in 1998 that resulted in the destruction of large quantities of documents. CCAB 23. While Judge McGuire expressed concern both before and after trial about this issue, he concluded after reviewing the evidence that “the process here has not been prejudiced as there is no indication that any documents [that are] relevant and material to the disposition of the issues in this case were destroyed.” IDC 244.

Judge McGuire’s conclusion is amply supported by the evidence. For example, there are no documents that Rambus could have destroyed that would assist Complaint Counsel in meeting their burden of proof on such issues as the scope of Rambus’s patent applications (which were maintained by the PTO) or the nature of the Rambus’or s acog

theisconetinsentplemets ar triat1(h7)3.4hat[w]eld ha(a)]TJ1.46793 0 TD-0.0018 T(ns retention issue. Complaint Counsel claim, for example, that Mr. Crisp discarded "any documents he had relating to JEDEC. . . ." CCAB 23. In fact, Mr. Crisp testified that while he discarded the papers that he had received *from* JEDEC (such as official meeting minutes), he deliberately *preserved* the JEDEC-related electronic materials that he had created (such as his trip reports for each of the meetings he attended). Crisp, Tr. 3570-73, 3576.

Judge McGuire thus correctly concluded that the adjudicative process in this case was not impaired by Rambus's implementation of a document retention policy.

E. JEDEC Members Were Aware As Early As 1992 That Rambus Might Obtain Patent Rights Over Features Being Considered For Inclusion In JEDEC Standards

1. Rambus Explained Its Inventions Under NDAs To Numerous DRAM Manufacturers

As discussed above, Rambus did not, while it was a JEDEC member, have any claims in issued patents or pending patent applications that covered any technology proposed for standardization by JEDEC. As a consequence, Complaint Counsel are left to argue that Rambus should have disclosed that it *might* someday be able to obtain, or that it *hoped* to obtain, intellectual protection over certain technologies. CCAB 16-21.

Complaint Counsel's argument is unsupported by any documents or testimony regarding the JEDEC patent policy. The argument also runs squarely into the overwhelming body of evidence showing that JEDEC members were well aware of such a prospect. Indeed, from Rambus's earliest days, DRAM manufacturers and others were put on notice of the nature of Rambus's inventions, including the four features at issue here. In 1989 and 1990, Drs. Farmwald and Horowitz began visiting the major DRAM manufacturers and systems companies, such as Texas Instruments, IBM, Toshiba, Fujitsu, Mitsubishi, NEC, Matsushita, Micron, Siemens, Sun Microsystems, Motorola, Apple, SGI and Tandem, to try to interest them in Rambus technology. IDF 103-04;

109-21, 130-34. On appeal, Complaint Counsel do not challenge Judge McGuire's findings that these earliest presentations (w

Rambus listed in the ’703 patent the nine other divisional applications of the ’898 application that were then pending, which disclosed that Rambus was actively pursuing a number of the inventions in the ’898 application. RPF 717, IDF 182.

When founding Rambus, Drs. Farmwald and Horowitz recognized that any company they formed would not be able to manufacture the DRAM parts that they were designing; a DRAM manufacturing facility cost a half a billion dollars. They understood that, as Dr. Farmwald testified, “the only possible business model that made any sense was to patent it, convince others to build it, and charge them royalties.” Farmwald, Tr. 8095.

Rambus made no secret of its business model. For instance, Rambus’s 1992 marketing brochure explained that: “Rambus Inc. is fully protecting the intellectual property rights of its technology by filing basic, broad patents in all major industrial nations around the world.” RPF 599. The brochure also made clear that Rambus’s business strategy was to license its technology, work with the licensee to help implement the technology, and to rplc( )Tj13.9908 -0.3088 TD

3. The Evidence Shows That JEDEC Members Were Aware Of The Potential Scope Of Rambus's Intellectual Property

As discussed above, Rambus's technology, including the four inventions at issue here, were well known throughout the DRAM industry in the early 1990s. *See* IDC 306-09. In addition, the evidence shows that the industry was well aware of Rambus's patent applications, giving them more specific insight into the technology that Rambus could seek to patent in the future. In particular, various industry players obtained and analyzed Rambus's PCT application after it became public in October 1991. IDF 185 ("Several JEDEC members obtained the PCT application in the early 1990's, including Mitsubishi and IBM"); IDF 810 (Howard Sussman of NEC reviewed the PCT application and described it at a JEDEC meeting in May 1992). Rambus's first issued patent, the '703 patent, was disclosed to JEDEC in September 1993, shortly after it issued. IDF 179.

It is undisputed that the PCT application and the '703 patent have the same written description as Rambus's original '898 application and that all of the patents that Rambus has asserted against SDRAMs and DDR SDRAMs claim priority to that original application. Complaint Counsel have argued, nevertheless, that the written description contained in the '898 and PCT applications and in the '703 patent would *not* alert a reasonable engineer that Rambus might obtain claims sufficiently broad to read on SDRAM or DDR SDRAM. According to Complaint Counsel, DRAM engineers reading the PCT or '898 application would be left in the dark because "Rambus's initial patent application and European (or WIPO) application contained claims relating solely to RDRAM." *Id*. Complaint Counsel's argument is wrong as a matter of law and is contradicted by evidence showing that engineers reviewing the PCT application did, in fact, realize that Rambus might get such broad claims.

Complaint Counsel concede that Rambus has obtained patents claiming priority to the '898 application that contain claims sufficiently broad to cover SDRAM and DDR SDRAM devices containing the four features at issue. IDF 219. Complaint Counsel do not challenge the validity of those claims. As a consequence, Complaint Counsel do not (and cannot) contend that the patents in question fail to satisfy the "written description" requirement in the patent statute. In accord with this requirement, the Patent Office has determined that the claims at issue *are supported* by the original '898 application and that a person of ordinary skill, such as a DRAM engineer, *would recognize from reviewing the '898 application that Drs. Farmwald and Horowitz had made those inventions*. IDF 207-19; RPF 703-05. *See Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991) (holding that under the "written description" requirement, in order for later-filed claims to be valid, an applicant must convey in the original written description "with reasonable clarity to those skilled in the art that . . . he or she was in possession of [the invention now being claimed]").

In other words, as a matter of law, the '898 application (which was in all material respects identical to the PCT application) conveyed to the DRAM engineers who reviewed it that Rambus might claim inventorship of the features described in it. Indeed, the Federal Circuit has explained that the original purpose of this written description requirement was precisely to serve a notice function: namely, "to guard against prejudice or injury from the use of an invention which the party may otherwise innocently suppose not to be patented." *Id.* at 1561 (citation omitted). Accordingly, and as Judge McGuire concluded, the PCT application and the other information publicly available to the DRAM industry "should have raised concerns within the industry that Rambus might be able to obtain patents over the four technologies in issue." IDC 298.

The real world evidence shows that the PCT and the '703 patent did indeed cause engineers to recognize that Rambus could obtain claims to the four inventions at issue. For example, Mitsubishi engineers reviewed the PCT application in 1993 and recognized that Rambus might obtain broad claims in the future based on the written description in that application. IDF 193-94. Later Mitsubishi documents relating to the analysis of the PCT application show a recognition that Rambus might be able to obtain claims on some of the very features at issue here, such as programmable latency as used in SDRAMs. IDF 197-98, 217.

Complaint Counsel have not challenged Judge McGuire's findings regarding the PCT application, although they do claim that the specification in the '703 patent did not put JEDEC members on notice of the possible scope of Rambus's inventions. Complaint Counsel tell the Commission that "JEDEC members who reviewed [the '703] patent concluded that Rambus did not have patent rights over ongoing JEDEC work." CCAB 25. This statement is inaccurate. The only cited evidentiary support is CCFF 1275-76, where counsel pointed to the testimony of Siemens representative Willi Meyer and Micron representative Terry Lee. Of the two, only Lee testified that he had reviewed the '703 patent. Lee, Tr. 6609-10. Mr. Lee did not, however, testify that he had concluded from reading the '703 patent that Rambus's patent rights did not extend to "JEDEC work." Instead, he testified on direct examination that *other* patents seemed to apply "kind of specifically" to the RDRAM product. *Id*. On cross-examination, Lee admitted that his review of the '703 patent had led him to believe – and to state at a JEDEC meeting in 1997 – that Rambus might have intellectual property relating "to the work of the committee." Lee, Tr. 6961-62. Lee drew this conclusion even though the "work" in question – a proposed clocking scheme for DDR SDRAM – did not involve any "multiplexed," "packetized" or "narrow bus" architecture. *Id*. *See also* IDF 882-83. It is thus evident that Mr. Lee understood from the description in the '703 patent of Rambus's inventions that the scope of Rambus's possible claims was *not* limited to the RDRAM architecture. *Id*.

4. JEDEC Members Believed That Rambus's Inventions Were A Collection Of Prior Art And That Rambus Would Be Unable To Obtain Broad Claims

The trial record contains substantial evidence that JEDEC members believed that Rambus's intellectual property rights, though potentially broad, would be defeated by prior art. For example, NEC re

F. Rambus Did Not Lull JEDEC Members Into Believing That Rambus Would Not Obtain Patents Over Te

between Kelley and Crisp testified, as Mr. Meyer eventually did, that Mr. Crisp had *declined to respond* to Mr. Kelley's inquiry. IDF 811-817; Calvin, Tr. 1068-70; Kelley, Tr. 2662; Kellogg, Tr. 5323-4; Crisp, Tr. 2993-94, 3490-91. Moreover, all of the contemporaneous notes and trip reports about the May 1992 exchange report that Mr. Crisp had declined to comment about Rambus's intellectual property. Mr. Meyer's own trip report, for example, states: "Siemens and Philips concerned about patent situation with regard to Rambus and Motorola. No comments given." IDF 815; RX297 at 5. Mr. Crisp's e-mailed report, sent the day of the meeting, states that "Siemens expressed concern over potential Rambus Patents covering designs. Gordon Kelley of IBM asked me if we would comment which I declined." IDF 816; CX673 at 1. Finally, IBM representative Mark Kellogg prepared handwritten notes during the May 1992 meeting that stated that:

> "Siemens: Kernel of chip similar to Rambus. Patent concerns?
> (No Rambus comments).

IDF 820; RX290 at 3.

In short, all of the testimony and the contemporaneous documents agree: Mr. Crisp openly declined to respond to questions about Rambus's intellectual property with respect to the SDRAM architecture. Did this exchange lull JEDEC members into believing that they need not be concerned about Rambus's intellectual property? The evidence tells us it did not. IBM representative Mark Kellogg testified, for example, that he thought the exchange between Mr. Kelley and Mr. Crisp was "a flag, which is why I wrote it down." IDF 822; Kellogg, Tr. 5322. By "flag," Kellogg meant in part that the discussion raised concerns about "possible intellectual property concerns," and he testified that the "lack of response by Rambus is also a concern." Kellogg, Tr. 5323. Mr. Kellogg also testified that when he used the phrase "kernel of chip similar to Rambus," he was referring to a concern that "the fundamental architecture of the SDRAM device" was "similar to Rambus." IDF 821; Kellogg, Tr. 5324.

JC 42.3 Committee Chairman Gordon Kelley similarly testified, in connection with a subsequent refusal by Mr. Crisp to provide information about Rambus's intellectual property intentions, that a "no comment" from a JEDEC member in response to a question about intellectual property was "unusual" and "surprising," and that it constituted "notification to the committee that there should be a concern." IDF 819; Kelley, Tr. 2579.

Mr. Kelley's testimony – that a refusal to comment by a JEDEC member was "notification to the committee that there should be a concern" – is entirely consistent with his contemporaneous documents. One month after the May 1992 JC 42.3 meeting, Mr. Kelley gave a presentation to a group of about 30 IBM and Siemens engineers. IDF 830; Kelley, Tr. 2658-9. The slides that Kelley used in his presentation stated in part: "Patent Problems? (Motorola/Rambus)." IDF 831; RX303 at 1. Kelley testified that he was intending to and did use this language in his slide to:

> "notify[ ] the people involved in the design of the joint work that was going on between IBM and Siemens that there was concern about potential patent problems as I had heard at the JEDEC meeting about Motorola and Rambus intellectual property, and I wanted the group to recognize that there was this concern."

IDF 832; Kelley, Tr. 2545.[19]

From his review of this undisputed evidence – virtually all of it provided by witnesses called by Complaint Counsel – Judge McGuire concluded that Complaint Counsel had not met their burden of showing that Mr. Crisp had misled JEDEC members at the May 1992 meeting. IDF 786-823, 829-835; IDC 279-281. Judge McGuire also found that Mr. Crisp's refusal to comment "put members on notice" that Rambus might seek broad patent coverage. IDC 281. Given the uniform nature of the testimony in

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[19] Siemens representative Meyer gave a similar presentation to Siemens management in September 1992 that called Rambus a "deadly menace to the established computer industry." IDF 833; RX321 at 2.

members were not lulled by Mr. Crisp's remarks. The memorandum stated that Crisp had:

> "[m]ade a non-statement statement to the committee saying that Rambus has been developing this technology for five+ years and has a substantial number of patents relating to high bandwidth DRAMs."

RX615 at 1. Mr. Farley also reported that "SyncLink told Motorola confidentially that there were very likely patents violated by their proposal." *Id*. Intel representative Samuel Calvin similarly testified that he understood from Rambus's September 11, 1995 statement that any silence by Rambus at JEDEC meetings should not be taken as an indication that it did not have intellectual property relating to JEDEC's work. Calvin, Tr. 1070.

Judge McGuire correctly concluded that "JEDEC members should have clearly understood from [Mr. Crisp's] statement that Rambus might have or might attempt to obtain patents covering technology utilized in JEDEC standards." IDC 281.[20]

3. Rambus's June 1996 Withdrawal Letter Did Not Mislead Anyone

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protect Rambus technology." *Id*. (emphasis added).

Complaint Counsel contend that Rambus deliberately omitted its newly issued '327 patent from the list of patents attached to its June 17, 1996 letter to JEDEC, and they say that the claims of the '327 patent would have alerted JEDEC members to the breadth of Rambus's potential patent claims. CCAB 21, 51. There was no evidence at trial, however, to support this contention. Indeed, no witness testified that he or she had ever seen Rambus's withdrawal letter or the list of patents attached to it. Complaint Counsel thus failed to meet their burden of showing that the absence of the '327 patent from the list misled anyone.[21]

Moreover, the trial record demonstrates that the '327 patent was left off the list of Rambus's patents by mistake. It was the responsibility of outside counsel, Mr. Vincent, to compile the list of patents sent to JEDEC with the letter confirming Rambus's withdrawal. CX3129, Vincent Micron Depo. at 538. Mr. Vincent testified that he did not purposely leave the '327 patent off the list, which had been compiled in connection with an earlier draft of the letter in late March 1996 and which was not updated when the letter was sent in June 1996. CX879 at 3; CX3129, Vincent Micron Depo. at 490-91.

4. Rambus Acted In Good Faith

As noted in Section II.C.1, the EIA's general admonition that standardization activities be administered in good faith did not create any disclosure obligation with respect to a JEDEC member's intellectual property. It is nevertheless important to note that Rambus acted at all times in good faith. Rambus did not at any time encourage or push JEDEC to adopt any feature or technology. Rambus never even voted in favor of the standardization of any feature or technology. When Rambus was

[21] In any event, the '327 patent was on a list of Rambus patents circulated in 1998 by Hynix to numerous DRAM manufacturers. IDF 900.

IDF 1064 (*quoting* Crisp, Tr. 3496).

This testimony was fully corroborated by the contemporaneous evidence. In an internal email sent in September 1995, Mr. Crisp set out the reasons why Rambus had not disclosed to JEDEC the claims in its pending patent applications:

> "[W]e decided that we really could not be expected to talk about potential infringement for patents that had not issued both from the perspective of not knowing what would wind up being acceptable to the examiner, and from the perspective of not disclosing our trade secrets any earlier than we are forced to."

IDF 1065; CX837 at 2.

In light of this evidence, Judge McGuire correctly found that Rambus was not acting in bad faith and that it had legitimate business reasons for declining to respond to questions about its intellectual property. IDC 286-289.

G. JEDEC Would Not Have Adopted Different Standards Even If Rambus Had Made Additional Disclosures

Even assuming that Complaint Counsel were able to prove that (a) JEDEC imposed a mandatory obligation on its members to disclose intellectual property interests, (b) that Rambus failed to disclose intellectual property that fell within that obligation, and (c) that Rambus's conduct misled JEDEC members into believing that Rambus would not obtain patents over technologies proposed for inclusion in the standards, Complaint Counsel must still prove that had Rambus made the additional disclosures Complaint Counsel posit, the outcome of JEDEC's standardization work would have been different. In other words, Complaint Counsel must still prove that "but for" the alleged failure to disclose, JEDEC would have adopted alternatives for *each* of Rambus's technologies – the two technologies incorporated in the SDRAM standard and all four technologies incorporated in the DDR standard[22] – or Rambus's royalty rates would have been lower.

[22] Had JEDEC incorporated only some but not all of the Rambus technologies in question, Rambus would still be in the position to assert its patents over JEDEC-

For their assertion that, had Rambus made the allegedly-required additional disclosures, "JEDEC's members likely would have selected different technologies," CCAB 90, Complaint Counsel turn to two lines of evidence. First, Complaint Counsel seek to establish that the allegedly-required disclosures were the type of information that was "material," i.e., "likely to affect the decision-making process in questions." CCAB 74-75. Complaint Counsel hopes that by showing this, the Commission may infer that JEDEC's technology selection would have been different. CCAB 77-81. Second, Complaint Counsel rely on the testimony of JEDEC members that they would have (a) supported other technologies or (b) at least, considered alternatives more carefully. CCAB 90.

This evidence, however, is an inadequate foundation for antitrust liability. The evidence of materiality, *at most*, only shows that the additional disclosures might have been the *type* of information that is considered by JEDEC members. In certain non-antitrust cases, such as securities cases, involving thousands of faceless actors making thousands of independent decisions (the "market"), evidence that withheld information is of the *type* that is material is sometimes used to support an inference that disclosure decisions to adopt Rambus's technologies. There is abundant evidence about how these decision makers actually reacted to knowledge of Rambus's patents and in similar situations in the past, so there is no basis to rely on speculation or inference.

Instead, the question for the Commission is how, in light of this evidence, would JEDEC members have reacted to the *specific* information allegedly withheld by Rambus. In their attempt to answer this question, Complaint Counsel rely on after-the-fact testimony of JEDEC members about what they think they might have done had Rambus made the additional disclosures. But this testimony is necessarily unreliable; Complaint Counsel asked these witnesses to reinvent their decision processes for choices they made six to ten years ago. Moreover, many of Complaint Counsel's questions asked the witnesses to assume that Rambus held patents and applications that it did not then have. *See, e.g.*, Sussman, Tr. 1417. It was difficult enough for these witnesses to remember such things as what options were available, what considerations were important, and what their views were at the time. Asking them to reformulate their decisions based on unavoidably deteriorated memories is an invitation to speculation. Their conjecture does not provide an adequate basis for the extraordinary remedy Complaint Counsel seek, particularly where the witnesses work for companies with an interest in the outcome of this litigation. IDC 270.

Moreover, the biased and speculative testimony of Complaint Counsel's witnesses is directly contradicted by real world events. First, there is the evidence of real world technology decisions made by JEDEC members *when directly confronted by Rambus's claims that its patents cover the four at-issue technologies*. This evidence guts Complaint Counsel's case because it shows that JEDEC members continued to adopt Rambus's technologies for future standards, even though they knew that Rambus would claim that it had patents covering those technologies. Second, the economic and technical evidence demonstrates that Rambus's technologies were superior to the available alternatives in cost/performance terms, even accounting for Rambus's royalties.

This evidence shows that any rational JEDEC member would have chosen Rambus's technologies over alternatives (and it explains why JEDEC members continued to adopt Rambus's technologies even after knowing about Rambus's issued patents). Third, evidence concerning JEDEC's and Rambus's behavior and economic incentives confirms that JEDEC would have adopted Rambus's technologies in the but for world that JEDEC members would not have insisted on *ex ante* negotiations resulting in lower royalty rates.

These three sets of evidence demonstrate that, even if Rambus had made additional disclosures, JEDEC still would have adopted Rambus's technologies. *See* IDF 1128-1535. In short, when the evidence is evaluated as a whole, Judge McGuire correctly found that the weak and suspect inference that might be drawn from Complaint Counsel's selected portions of the record does nothing to meet Complaint Counsel's burden on this issue. IDC 316-22.

1. JEDEC Repeatedly Chose Rambus's Technologies Despite Concerns About Rambus's Intellectual Property, And Even After Rambus Began Asserting Its Patents

Noticeably absent from Complaint Counsel's description of the record is the evidence of real world technology decisions made by JEDEC members *with full knowledge of Rambus's issued patents*. Complaint Counsel's hypothesis is that if Rambus had disclosed that it had pending patent applications that *might* issue and that *might* relate to technologies suggested for inclusion in JEDEC standards, JEDEC members would have selected alternative technologies to avoid paying royalties to Rambus. But this hypothesis founders on the evidence of what JEDEC *actually* did in the pas.6(sv(C3ntC Re)6(. B06 Tc-2.4([w0026 1sugge)[006–27327 trs 02 TtE Tc-l)5[e41433 TD-0.0006 T members developed a new product outside of the JEDEC process – RLDRAM – which incorporated Rambus's technologies as well. This evidence is nothing short of a "natural experiment" for how JEDEC members would have reacted to further disclosures from Rambus. It demonstrates that JEDEC members would have continued to adopt Rambus's technologies.

a. JEDEC Chose Rambus's Technologies For DDR2, Even Though Rambus Was Licensing Its Patents To DRAM Manufacturers

JEDEC's behavior after the relevant Rambus patents issued extinguishes the notion that additional disclosures would have changed the outcome. When Rambus technologies for the DDR2 standard.[24] But after considering those alternatives, JEDEC *chose* to use Rambus's technologies. Specifically, after Rambus's patents issued, JEDEC considered but rejected alternatives for Rambus's dual-edge clocking, variable burst length, and programmable latency technologies. In addition, despite identifying potential alternatives for Rambus's on-chip DLL technology before Rambus's patents issued, JEDEC elected to retain Rambus's technology.

Programmable latency. Only a few months after Rambus began licensing its patents, in March 2000, Micron proposed to JEDEC several alternatives for Rambus's programmable latency technology in SDRAM, DDR, as well as DDR2. IDF 1505; RPF 749; CX154A at 25 ("the first part of this presentation discusses possible methods for eliminating programmable read latency despite knowledge of Rambus's patents.[26] IDF 1509.

Dual-edge Clocking. At the September 2000 JEDEC meeting, Micron proposed that DDR2 incorporate single data rate technology instead of dual-edge clocking. IDF 1515; CX2769 at 13. The minutes of a November 2000 conference call show that JEDEC committee members developed a consensus to adopt the technology in place of dual-edge clocking "if it works": "Single data rate clock is preferred provided we can make it work." CX426 at 4; IDF 1516. But it apparently did not work; JEDEC adopted Rambus's dual-edge clocking technology for DDR2. IDF 1517-18; RPF 760-63.

Variable Burst Length. In July 2001, JEDEC issued the preliminary specification for DDR2, which specified the use of a fixed burst length – an alternative to Rambus's variable burst length technology. IDF 1510; RX-1854 at 20. At a September 12-13, 2001 JEDEC meeting, however, JEDEC rejected the alternative and returned to Rambus's technology. IDF 1511; RPF 754-58. At that meeting, Intel and IBM jointly proposed that the DDR2 specification be modified to "add support for burst length of 8." CX174 at 7. AMD also made a similar proposal at that same meeting. CX174 at 8. This was to be accomplished by *reincorporating* into the standard Rambus's variable burst length technology. CX174 at 37 ("Mode-Register Programming for Burst-Length of 8"; "Need programmability to allow for either BL=4 or BL=8"). According to Intel and IBM, the addition of Rambus's technology would substantially improve performance in certain applications. CX174 at 35 ("Potential Improvement of 4-10% On High-Bandwidth Applications"); *id.* at 36 (using technology to allow for burst length of 8 "Improves Data Efficiency By As Much As 15%"). The proposal to reject the fixed burst

[26] As Judge McGuire found, there can be no doubt that JEDEC members were fully aware of Rambus's patent claims during this time. Joe Macri, the chair of the task group working on DDR2, testified that Rambus's patent claims were such common knowledge that he did not even bother mentioning them during committee meetings discussing alternatives to Rambus's technologies. IDF 1497.

length alternative and to reincorporate Rambus's variable burst length technology passed unanimously. CX174 at 7-8; IDF 1512-13 (JEDEC adopted proposal despite being aware that technology was covered by Rambus's patents).

On-chip DLL. After being assigned to investigate alternatives to Rambus's on-chip DLL technology, in December 1998, both HP and IBM proposed alternatives for DDR2. IDF 1502-03; CX137 at 3, 4, 27 (using a vernier mechanism in place of on-chip PLL). Despite these proposals, and despite Rambus's assertion of its patents in 1999, JEDEC did not adopt an alternative to on-chip DLL. IDF 1504. In other words, even though the DDR2 standard was still in process at the time JEDEC members became aware of Rambus's issued patents, JEDEC elected to remain with Rambus's technology instead of the alternatives that it had already investigated.

These choices were not driven by "lock-in." Before the ALJ, Complaint Counsel attempted to dodge the implications of this evidence by positing that JEDEC had to use the Rambus technologies in DDR2 because they were used in DDR. Specifically, Complaint Counsel have contended that JEDEC adopted Rambus's technologies in DDR2 to maintain "backward compatibility" with DDR, by which they mean that memory controllers could be designed to work with both types of memory and that both types of memory could be manufactured on the same die.[27] RRPF 3244-46.

While there is evidence that this sort of "backward compatibility" was a consideration in the design of DDR2, three sets of evidence demonstrate that JEDEC was not "locked-in" to using Rambus's technologies entirely different from DDR, which would have precluded any sort of "backward compatibility." RPF 739-63. Had "backward compatibility" been an overriding concern, it is unlikely that JEDEC would waste time considering alternative architectures.

Second, as discussed above, JEDEC considered alternatives for each of the four Rambus technologies. Again, as Complaint Counsel's own economist admitted, if JEDEC were locked in, it would not have wasted its time in these efforts. IDF 1501; McAfee, Tr. 7571. But even more telling, as discussed above, the preliminary specification for DDR2 *did* adopt an alternative for Rambus's variable burst length technology. If "backward compatibility" was driving JEDEC's decisions, this would have never happened. The evidence shows that JEDEC eventually abandoned that alternative and returned to Rambus's technology for performance reasons, not any "backward compatibility" concerns. IDF 1511. In addition, IBM's Mark Kellogg testified that he would, today, support going to an alternative for on-chip PLL/DLL, indicating that no "backward compatibility" concerns prevent a change. Kellogg, Tr. 5245-47.

Third, there is no contemporaneous evidence that any decision to use Rambus's technologies in DDR2 was driven by "backward compatibility" concerns. In fact, when considering Micron's proposed alternatives for Rambus's programmable latency technology, two companies flatly stated that they were not "locked in." Bob Fusco at Hitachi wrote, "For DDR-2, we have world when indisputably confronted with the information Complaint Counsel insist they lacked.

b. DRAM Manufacturers Incorporated Rambus's Technologies For RLDRAM, Despite Full Knowledge Of Rambus's Patent Rights And Even Though RLDRAM Is Not A JEDEC Standard

The development of RLDRAM dispels any doubt that JEDEC would have chosen Rambus's technologies in the but for world. After Rambus's patents issued and Rambus began to demand royalties for use of the four at-issue technologies in late 1999, three JEDEC members – Infineon, Micron, and Cisco – jointly developed RLDRAM. Bechtolsheim, Tr. 5962, 5965-66. The RLDRAM specification was developed outside of the JEDEC process. Bechtolsheim, Tr. 5962; IDF 1040. Thus, there was no JEDEC standard requiring the use of Rambus technologies. Nor was there any need to use Rambus technologies to be compatible with JEDEC-standard complementary devices. Yet RLDRAM incorporates three of the same Rambus technologies that are in SDRAM and DDR: programmable latency, variable burst length, and dual-edge clocking. Bechtolsheim, Tr. 5966. And despite Rambus's patents, RLDRAM went into full production. *See* CX2466 at 8-9 (Infineon offering six different types of RLDRAM of Rambus's intellectual property rights and incorporated Rambus's technologies into RLDRAM.[28]

Complaint Counsel have never addressed this evidence. They did not do so before the ALJ; they do not do so in their appeal brief. The inferences from the adoption of Rambus's technologies into RLDRAM stand uncontested.

* * *

The DDR2 and RLDRAM evidence shows that additional information about Rambus's patent interests would not have caused JEDEC members to seek alternative technologies. JEDEC has demonstrated in the real world that additional knowledge of Rambus's patent interests does not lead it to stop using Rambus's technologies. The same would be true in the but for world.[29]

JEDEC members' incorporation of Rambus's technologies in DDR2 and RLDRAM is fully consistent with the evidence of their perceptions and motivations.

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[28] This real-world behavior also undermines the testimony of the Micron and Infineon engineers, relied upon by Complaint Counsel, who claimed that they would have favored alternatives to Rambus's technologies had Rambus made the additional disclosures. *See* CCAB 90 (relying on the testimony of Micron engineer Terry Lee and Infineon engineer Willi Meyer).

[29] As Judge McGuire found, this conclusion may also be framed as stemming from the economic doctrine of "revealed preference." Economists use evidence of real world choices to draw inferences about preferences and use those preferences to infer what choices would be made in a but for world. RPF 724-25. JEDEC's selection of Rambus's technologies for SDRAM and DDR demonstrate that, all other things being equal, Rambus's technologies were seen as superior to the alternatives. RPF 724-27; IDF 1486-1535; IDC 322-23. Complaint Counsel assail this conclusion, pointing out that these decisions were made without the additional information that Rambus allegedly withheld. CCAB 93. The question, therefore, is whether the additional information would have changed JEDEC members' revealed preference. JEDEC's selection of the same technologies for DDR2 (as well as the selection of these technologies for RLDRAM) shows that knowledge of Rambus's patents did not change that preference in the real world. Further disclosures from Rambus certainly would not have changed the revealed preference in the but for world.

a. Complaint Counsel Did Not Meet Their Burden Of Proving That There Were Any Acceptable Alternatives

At trial, Complaint Counsel sought to establish that there existed acceptable alternatives to which JEDEC would have switched. This required Complaint Counsel to prove that there were alternatives for both of the Rambus technologies incorporated in SDRAM (programmable latency and variable burst length) and all four technologies incorporated in DDR (programmable latency, variable burst length, dual-edge clocking,

incremental fixed and variable costs of using these alternatives in place of Rambus's technologies. RPF 969-88, 1125-1140. While Complaint Counsel take various jabs at this evidence, they have not submitted *any* cost evidence that undermines or contradicts Rambus's evidence.

b.

after accounting for Rambus's royalties, are *less* costly than any noninfringing alternatives. *See* IDF 1277-79, 1400-402. Not surprisingly, the cost data are consistent with the testimony of JEDEC members. *See, e.g.*, Kelley, Tr. 2550-51 (Rambus's variable burst length technology "drives low cost"); Landgraf, Tr. 1709 (Rambus's on-chip DLL technology "reduces the overall cost of the system"); Landgraf, Tr. 1709-10 (Rambus's dual-edge clocking technology reduces costs by using "the package and the pins more efficiently"). If low costs were the overriding concern, rational JEDEC members would have selected Rambus's technologies.

Third, Complaint Counsel argue that because of the need for consensus, JEDEC members did not behave as rational, profit-maximizing, economic actors, but would instead have avoided Rambus's technologies by selecting inferior technologies as the result of "satisficing" behavior. CCAB 87, 93.[31] The evidence, however, shows that JEDEC *does* seek the best alternative in cost/performance terms, i.e., JEDEC members *do* seek to profit maximize. RRPF 2650. JC 42.3 Chairman Gordon Kelley testified that JEDEC sought to select the "best" technologies. Kelley, Tr. 2709. A Micron JEDEC representative testified that "we had long discussions of the pros and cons of various options and tried to determine what was the best standard." Williams, Tr. 770. An IBM representative testified that he sought to work with the industry to find the "optimal solution, price/performance." Kellogg, Tr. 5113. The JEDEC minutes are rife with concerns of cost and performance.[32] This evidence shows that JEDEC would have acted rationally and would thus have selected the technologies with the best cost/performance

[31] The legal implications of Complaint Counsel's suggestion that JEDEC would in this way have chosen inferior technologies over Rambus's patented technologies are discussed in Section III.2.

[32] *See, e.g.*, CX18 at 5 (Mitsubishi comments regarding performance concerns);

"game" the system. Standard setting organization members have recognized that companies might, for competitive reasons, make false patent-related disclosures in order to derail or detour a standard setting process. *See, e.g.,* RPF 1172; IDF 1426. There is real world evidence of the EIA's reaction when its members believed that a patent holder was engaging in this conduct. In the *Echelon* case, an EIA standards body purposefully avoided asking for a RAND assurance to prevent "gaming" by a member that, the body believed, had tried to use intellectual property disclosures to force the body to forego a competitor's technology. RPF 1166-71; IDF 1421-25. The trial record shows that several JEDEC members believed that Rambus had tried to use its intellectual property to delay or prevent standardization of devices that might compete with its RDRAM. *See* RPF 476 (belief that Rambus made questionable intellectual property disclosures in effort to "torpedo" IEEE standard setting efforts); IDF 1427-31 (belief that Rambus made false claims about its patents to prevent adoption of DDR). Complaint Counsel's own economist admitted that if JEDEC believed Rambus was gaming the system, it was a "logical possibility" that JEDEC would not ask for a RAND letter and proceed to use Rambus's technologies. IDF 1434; RPF 1181.

JEDEC members might have believed that Rambus could not obtain valid patents. Even if JEDEC members believed that Rambus's disclosures were sincere, JEDEC likely would not have sought a RAND letter if it thought Rambus could not obtain valid patents. IDF 1416; RPF 1160. Complaint Counsel's economist agreed that this is the case. IDF 1433; RPF 1180. There is substantial evidence that JEDEC members were convinced that Rambus's patent applications would either never issue or be invalid because of prior art. *See, e.g.,* RPF 764-783; IDF 1519-35.

JEDEC's minutes show numerous instances in which it proceeded without obtaining a RAND commitment. Not only did JEDEC members have incentives not to seek a RAND assurance from Rambus, the evidence shows that JEDEC often proceeded to standardize technologies with seeking a RAND assurance despite patent issues. *See* RPF 1228-32, 1234. In other words, contrary to Complaint Counsel's assumption, *whatever* purported evidence is based upon the circumstances of a but for world in which Rambus had already disclosed its trade secrets. Moreover, this evidence is undermined by the real world confusion about what a RAND commitment entailed. IDF 1448-50; RPF 1200-1201. For instance, Rambus's counsel who drafted the IEEE letter apparently believed that Rambus would have to verify that *all of its existing licenses* were consistent with RAND requirements. RRPF 2420. Similarly, Rambus believed that JEDEC's licensing policy was "onerous," until it later made inquiries and was told by JEDEC leaders that "reasonable" meant "almost anything we wanted it to mean." RPF 1201; IDF 1450.

If confronted with a request for a RAND assurance in the but for world, however, Rambus would have been motivated to investigate the limits of RAND. IDF 1449; RPF 1200. Having done so, it would have agreed to give a RAND assurance to JEDEC.

(2) JEDEC Would Have Adopted Rambus's Technology With A RAND Assurance

The evidence also demonstrates that JEDEC would have adopted Rambus's technologies upon receiving a RAND assurance. Doing so would have been consistent with how JEDEC operated.

The record is replete with instances in which JEDEC adopted technologies despite patent issues. The JC 42.3 meeting minutes show that during the period from May 1990 through the end of 1995, patented technology, or potentially patented technology was proposed to JC 42.3 for standardization on at least a dozen occasions, and in each instance the technology was balloted and the ballot passed. IDF 1467-80; RPF 1220-38.

Key JEDEC members corroborate this record. Gordon Kelley, a long time chair of JC 42.3, testified that he could not recall any instance in which JEDEC pursued alternatives after receiving a RAND commitment on what the committee thought was the best alternative. Kelley, Tr. 2707-09. Similarly, James McGrath, the JEDEC representative for Molex, could not recall a single instance between 1992 and 1996 in which a JEDEC committee changed its course with regard to a standard upon learning of a patent or patent application. McGrath, Tr. 9243, 9255. During the time Rambus attended JEDEC, Desi Rhoden could not recall any example of a JEDEC committee seeking an alternative after a JEDEC member disclosed a patent application and stated that it would license on RAND terms. Rhoden, Tr. 628-29.

Economic analysis confirms that JEDEC would be satisfied with a RAND assurance. Technology licens

royalty rates would have been the same as they are in the real world. IDF 1536-81. Because JEDEC members would not have engaged in *ex ante* negotiations in the but for world, JEDEC members and Rambus would have negotiated for licenses to Rambus's technologies at the same time as they did in the real world – after the relevant Rambus patents issued in 1999. The only difference is that Rambus would have issued a formal RAND letter. That would not have made a difference; the evidence shows that Rambus's actual royalty rates are consistent with a RAND commitment.

First, Rambus's royalty rates are "reasonable."[34] JEDEC left it to the market (and if necessary to the courts) to define what is "reasonable." IDF 1542-45; RPF 1372-75. Rambus's SDRAM and DDR royalty rates (.75% and 3.5%) fall well within the rates charged by others in to low end of these DRAM industry and semiconductor industry rates. IDF 1558; RPF 1393.

Rambus's licenses are also "nondiscriminatory." As with "reasonable," JEDEC left the definition of "nondiscriminatory" to the market. IDF 1568-72; RPF 1406. Complaint Counsel have argued that Rambus's rates are discriminatory because Rambus charged a slightly higher rate to one licensee, Hitachi, that chose to litigate with Rambus. But this does not make Rambus's licenses "discriminatory." First, Rambus *offered* the same royalty rates to all potential licensees, including Hitachi. IDF 1574; RPF 1412. Second, the evidence shows that JEDEC members did not believe that "nondiscriminatory" prevented higher rates for litigating parties. IDF 1572; RPF 1406-10. Third, demanding a slightly higher royalty from a party that insists on litigation is not discriminatory in an economic sense. IDF 1575-81; RPF 1414-17.

* * *

In sum, the outcome in the but for world is identical to that in the real world. Therefore, had Rambus made the additional disclosures Complaint Counsel allege it should have made, nothing would be different today. *See* IDC 323 ("Respondent's conduct before JEDEC with respect to nondisclosure of its patents and patent applications did not cause JEDEC to adopt these technologies into its SDRAM and DDR standards.").

H. The DRAM Industry Is Not Locked In

According to Complaint Counsel, Rambus acquired "durable" market power because, though there supposedly are alternatives, the DRAM industry is "locked in" to using the Rambus technologies in SDRAM and DDR. CCAB 65. In other words, Complaint Counsel contend that after Rambus's patents issued in 1999, it was too "costly, complicated, and time consuming" technologies. Responding to this hypothetical, witnesses responded that it would be "impossible." Thus, according to Complaint Counsel, Rambus's market power was created not by the superiority of its technologies, but by "lock in."

As Judge McGuire found, however, the evidence does not bear this out. *See* IDF 1582-1665; IDC 326-29; RPF 1259-1360. It is clear, for instance, that once Rambus's patents issued, JEDEC considered alternatives for the Rambus technologies in SDRAM and DDR. *See, e.g.,* CX154A at 26 (March 2000 presentation at JEDEC, "Avoiding Programmable Latency in SDR/DDR SDRAMs"); RX1626 at 4 (April 2000 email to JEDEC task group, "I think for SDR we should approve the proposal to make CL programmability an option. . . . . For DDR-1 it's not too late for minor, carefully considered changes, so I'm open to either proposal."); RPF 1261. If "lock in" so obviously precluded switching, JEDEC members would not waste their time exploring these options. IDF 1585 (noting that Complaint Counsel's expert conceded this point). Moreover, Complaint Counsel have not identified a *single* contemporaneous document reflecting any concern about lock in. In fact, the only contemporaneous documents that speak to the issue indicate the opposite. *See* RPF 1264; IDC 326 ("Complaint Counsel, however, have not presented evidence, contemporaneous or otherwise, that the industry is locked in.").

Further, the evidence refutes the notion that switching would be "costly, complicated, and time consuming." For a manufacturer, switching from one type of DRAM to another is relatively simple. The majority of DRAM design work involves the memory array, but changing from one DRAM standard to another involves only the peripheral circuitry. Kelley, Tr. 25957mno

> *changing priorities in design and product engineering and may mean some differences in our assembly and test equipment purchases.* SDRAM, SLDRAM, nDRAM all use the same fab equipment and core DRAM technology. In short, *while the flavors might change, it's still a DRAM.*

RX 836 at 3 (emphasis added).[35]

Switching to alternatives for the Rambus technologies (if they existed) would thus be straightforward. The Rambus technologies are in the peripheral circuitry, not in the memory array. Geilhufe, Tr. 9559. DRAM manufacturers routinely redesign their products.[36] Incorporation of alternatives to Rambus's technologies could technology to fixed latency and burst length to be approximately $4.3 million).[38] DRAM manufacturers could – as they often do – phase in their new products while they phase out their old.[39]

The ease of switching is fully supported by the fact that the DRAM industry routinely switches from one standard to another. Complaint Counsel would like to paint the DRAM industry as a slow-moving, inertia-laden, collection of uncooperative and disparate companies. Once it finally rests on an standard – such as SDRAM or DDR – according to Complaint Counsel, moving the industry to anything different is a massive undertaking. But the reality is very different. The evidence shows that the DRAM industry routinely switches to new standards. Contrary to Complaint Counsel's suggestion, the SDRAM and DDR standards are not monolithic. *See* RRPF 2542-46. Rather, each is comprised of a number of *incompatible* sub-standards.[40] For SDRAM there are three: PC66, PC100, and PC133.[41] IDF 1594; RPF 1276. For DDR there are

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patents. RRPF 2530. For instance, unlike a situation requiring a "revision design," industry members could continue to use older designs during the transition to alternatives.

[38] By contrast, Complaint Counsel's economist admitted that he did not quantify switching costs. IDF 1658 ("Complaint Counsel's expert was not persuae they phase industr1es. d not c

industry overcomes switching costs at a frequency of more than once a year. McAfee Tr. 11357-58; RRPF 2553; IDF 1659. And he admitted that switching cost to avoid Rambus's technologies would be no greater than those routinely absorbed by the industry. McAfee Tr. 7714-18; RRPF 2553; IDF 1658.

In sum, Complaint Counsel's evidence is based on a hypothetical world in which DRAM manufacturers, component manufacturers, and DRAM customers must suddenly stop everything, throw away existing products, redesign every product in their factories, and try to shift instantaneously to alternatives. By framing their questions with this picture in mind, Complaint Counsel not surprisingly elicited some testimony that such a change would be "impossible." But that is not how the DRAM industry has operated in the real world. The industry has gone through routine transitions from one standard to the next, readily coordinating the necessary infrastructure with none of the disastrous interruptions that Complaint Counsel imagine. There is no evidence showing that switching from Rambus's technologies would somehow be different. Complaint Counsel have not met their burden to show that the industry is "locked in."

III. ARGUMENT

A. Standard Of Review

Although the Commission is authorized to conduct a *de novo* review of an ALJ's factual findings, the Commission ordinarily "leave[s] undisturbed those findings of an ALJ derived from his observations of the demeanor of witnesses and the bearing this

Union Corporation, 2000 FTC LEXIS 23, *41 (2000) (in a case where the ALJ found one of two live witnesses more credible, "we give deference to this determination");

connection between anticompetitive conduct and monopoly power. , conduct was sufficient u

46 See alsoDefining Better Monopolization StandardsTAN. L. REVMuris, , 67bANTITRUST L.J. 693, 694, 696, (2000) ("Courts require a causal link between the conduct under scrutiny and the be established.").

Trinko made clear that the violation of a private duty – even violation of another federal statute intended to promote competition – does not suffice to establish antitrust liability.

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courts have always prevented or severely limited third-party access to applications filed with the Patent Office. *See, e.g.*, *Irons & Sears v. Dann*, 606 F.2d 1215, 1220-21 (D.C. Cir. 1979) (denying access through the Freedom of Information Act to patent applications to prevent competitive harm); *Cordis Corp. v. SciMed Life Sys., Inc.*, 982 F.Supp. 1358, 1360 (D. Minn. 1997) ("It is well-settled that the secrecy of pending and abandoned United States patent applications should be preserved whenever possible").

A patent application continues to hold valuable trade secrets even after the written description becomes public (by, for instance, publication of a related PCT application). IDF 1074, 1079; RPF 94. Disclosure of the written description does not reveal the *claims* in the pending application. IDF 1074; RPF 94-95; Fliesler, Tr. 8840-41. As Judge McGuire found, the unrebutted evidence shows that maintaining the confidentiality of pending claims is important:

- Disclosure of information about pending claims shows which inventions the applicant is seeking to protect, and thus reveals both technical information and the applicant's business strategies. IDF 1080.

- Disclosure of information about pending patent claims may enable a competitor to slow down or interfere with the patent application process. IDF 1081. For instance, such information may enable a competitor to provoke an "interference" at the Patent Office by claiming the same invention in one of the competitor's applications.[50] IDF 1082.

- Disclosure of information about pending applications could jeopardize the applicant's ability to obtain foreign patents. Most foreign jurisdictions have a "first to file" rule. IDF 1083. Disclosure of information regarding pending U.S. patent claims may

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patent application that would be published. 35 U.S.C. § 122. This law was not in effect when Rambus was a member of JEDEC.

[50] *See* 3-10 CHISUM ON P!

> thus enable a competitor to win the "race" to those foreign patent offices. IDF 1083; *see also* RPF 1436-37.

For these reasons, it is normal business practice for firms to maintain the confidentiality of their patent applications. Competent patent attorneys routinely advise their clients to strictly maintain that confidentiality. IDF 1084. If disclosure of information becomes necessary, companies devise means to circumscribe the amount and type of information disclosed. RPF 102.

This normal business practice was well recognized within JEDEC. IDF 1085. For example, in October 1992, JC 42 chairman Jim Townsend circulated to members of the committee an article entitled "Don't Lose Your Patent Rights." CX342 at 8. The article admonishes inventors to "Keep It Under Your Hat," *i.e.*, not to disclose their inventions prematurely because disclosure may jeopardize their ability to obtain a patent. *Id*

b. Amending Pending Patent Applications Based On Competitive Information Is A Legitimate Business Practice Which Ensures That Inventors Are Rewarded For Their Innovations

Complaint Counsel also complain that Rambus attempted to amend its patent applications to cover competitive technologies. But that is unquestionably a lawful and legitimate practice. As the Federal Circuit explained in holding that there is nothing improper about amending a patent application to cover a competing product:

> It should be made clear at the outset of the present discussion that there is *nothing improper, illegal or inequitable* in filing a patent application for the purpose of obtaining a right to exclude a known competitor's product from the market; nor is it in any manner improper to amend or insert claims intended to cover a competitor's product the applicant's attorney has learned about during the prosecution of a patent application.

Kingsdown Medical Consultants, Ltd. v. Hollister, Inc., 863 F.2d 867, 874 (Fed. Cir. 1988) (emphasis added); *see also Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 909 n.2 (Fed. Cir. 2004). Amending a patent application to cover a competing product is *not* acting in "bad faith"[52] and does not evidence any intent to deceive.[53] These principles apply in the DRAM industry as in any other. *See Texas Instruments, Inc. v. U.S. Int'l Trade Comm'n*, 871 F.2d 1054, 1064-65 (Fed. Cir. 1989).

Amending patent claims to cover competing products is not only legal; it is procompetitive. Any amendments – which are made through continuation[54] or divisional applications[55] – are limited to claims based on the inventions disclosed in the original

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[52] *See Multiform Desiccants, Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1482 (Fed. Cir. 1998).

[53] *See Emerson Elec. Co. v. Spartan Tool, LLC*, 223 F.Supp.2d 856, 921 (N.D. Ohio 2002).

[54] A continuation application is a second application containing the same disclosure as the original application. *See* 4-12 CHISUM ON PATENTS §13.03[2] (2003).

[55] Divisional applications effectively divide the original application into several applications. Where a patent application contains "independent" and "distinct"

rival producers, or facilitate oligopolistic pricing by easing rivals' ability to monitor each other's prices." 486 U.S. at 505 n.5.

Absent a clearly defined duty to disclose, Complaint Counsel's antitrust case unravels.[61] Complaint Counsel cannot save its case by evidence of members' "expectations" or reference to vague standards like "good faith" or the "spirit" of the rules. CCAB 9, 10, 39, 47. Such amorphous notions cannot be the basis for liability because, absent an unambiguous patent disclosure policy, "members form vaguely defined expectations as to what they believe the policy requires – whether the policy in fact so requires or not."

the "EIA/JEDEC patent policy has been shown to be a loosely defined amalgam of confusing, contradictory documents and presentations. It failed to define members' rights, or more importantly, their obligations." IDC 290.

First, Complaint Counsel failed to prove that the JEDEC clearly imposed *any* duty to disclose. As Judge McGuire found, the weight of the evidence shows that JEDEC's rule and policies merely encouraged but did not require disclosure. IDC 260-70. This finding is amply supported by the record evidence. *See* Section II.C. As Complaint Counsel admit, if a standard-setting organization does not require the disclosure of intellectual property interests, any "misrepresentations" about such interests cannot be the basis for antitrust liability – "even if it violates some other duty." CCAB 77 n.76. Moreover, Complaint Counsel's economist admitted that his entire testimony was premised on the assumption that Rambus violated a JEDEC rule or process. IDF 1110. This failure of proof is therefore fatal.

Second, Complaint Counsel failed to prove that JEDEC clearly required the disclosure of patent applications. To the contrary, Judge McGuire found that JEDEC's patent policy was limited to issued patents. IDC 269-70. Again, this finding is well-supported by the record. *See* Section II.C. As discussed above, Rambus had no issued patents that were required to be disclosed. *See* Section II.D.

Third, Complaint Counsel failed to prove that any duty of disclosure extended beyond "essential" patents. Judge McGuire rejected Complaint Counsel's argument that there was a duty to disclose intellectual property interests that "might be involved" in the standards under development and found that any duty was limited to essential patents – i.e., patents that cover the technology being considered for dards under ectual pr07ao

> application having a vague relationship to the standard would have to be disclosed. JEDEC members would be required to disclose improvement patents, implementation patents, and patents directed to the testing of standard-compliant devices – even though the standard itself could be practiced without licenses under such patents."

IDC 271 (quoting *Infineon*, 318 F.3d at 1101).

As Judge McGuire found, Rambus had no patents or patent applications while it was at JEDEC that were essential to any technologies incorporated in the SDRAM standard. IDC 274-77. Moreover, all five judges who have considered this case determined that Rambus withdrew from JEDEC before DDR standardization began and, thus, that Rambus could not have violated any duty to disclose with respect to that standard. *See* IDC 277-79. The record also shows that while it was a JEDEC member, Rambus did not possess patent applications with claims that would have covered the technologies Complaint Counsel allege were part of the DDR standardization process. *See* Section II.D.1.f.

Complaint Counsel have pointed to evidence that Rambus employees might have *believed*, though erroneously, that Rambus had pending patent applications that, if issued, could cover technologies presented at JEDEC. But Complaint Counsel did not prove that a duty to disclose extended to a member's incorrect belief that claims in its applications, if issued, would have covered technologies being standardized by JEDEC. IDC 277 (quoting *Infineon*, 318 F.3d at 1104). The record evidence confirms that a duty to disclose is not and cannot be triggered by an incorrect belief about patent interests. *See* RPF 274-85, 288-95.

<u>Fourth,</u> Complaint Counsel did not prove, as they recognize

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Judge McGuire – who was in a position to judge the credibility of Rambus's JEDEC representative and executives – found that "[t]here is no evidence that [Rambus] ever made a knowingly false statement to JEDEC or member companies regarding its patent position."[64] IDC 299. To begin with, after reviewing the evidence presented by Complaint Counsel and hearing the testimony of Richard Crisp, Judge McGuire found that there is no evidence that Mr. Crisp had actual knowledge that Rambus had any pending claims that could be asserted against SDRAM or DDR products. IDF 903-913. In other words, Complaint Counsel did not prove that Mr. Crisp knowingly violated JEDEC's rules. *See* IDF 780-81 (any duty to disclose applied only to participants with actual knowledge of relevant intellectual property).

Moreover, Judge McGuire found that Rambus both sought and followed legal advice with regard to the their obligations with respect to JEDEC. IDF 929-38. Based on that advice, Mr. Crisp understood that "Rambus should not go and promote a that he should keep Rambus's patent

(per curiam); *Vernon v. Southern California Edison Co.*, 955 F.2d 1361, 1368 (9th Cir. 1992).

The record here fails to demonstrate that JEDEC's rules were procompetitive. To the contrary, it establishes that, if the rules mean what Complaint Counsel say they mean, they would be *anti*competitive.

Complaint Counsel's economic expert suggested that a disclosure rule might in general mitigate a hold-up risk, but he admitted that he had done no analysis to determine whether JEDEC's rules and processes are efficient or advance the interests of antitrust law. McAfee, Tr. 7532-33, 7727-28; IDF 1120. Nor did he perform any analysis of costs and benefits in order to determine more generally what would be an economically efficient or procompetitive disclosure rule. McAfee, Tr. 7727-28; IDF 1121.

Moreover, although he opined that disclosure rules mitigate the risk of hold up, Complaint Counsel's economic expert admitted that *JEDEC's* disclosure rules in fact do little to mitigate that risk because the disclosure obligation is measured only by the knowledge of the representativ

More important, Complaint Counsel do not even attempt to demonstrate that any benefits from the alleged JEDEC disclosure duty exceed the benefits to consumer welfare from permitting firms like Rambus to keep secret the patent potential issued, there is very little value to disclosure since the scope of valid patent claims has not been determined." RX2011 at 5. It is thus not surprising that there is no evidence to support Complaint Counsel's suggestion that disclosure of future patent interests would lead to the "present[ation]" to JEDEC of a royalty "price tag." CCAB 89, 96.

As Judge McGuire further found, the record also shows that disclosure of patent interests did not cause JEDEC to alter its choice of technology. IDF 1467-80; RPF 1220-38. To the contrary, having decided which technology it preferred, JEDEC stuck with that choice notwithstanding disclosures of patent interests. *Id.* When disclosure of patent interests did have an effect, it had a much narrower and much different effect – it induced JEDEC to insist that the patent holder commit generally to license its patents on reasonable and non-discriminatory ("RAND") terms. *Id.*

Under the circumstances, therefore, the disclosure rule alleged by Complaint Counsel is anticompetitive because a RAND commitment could be obtained without any disclosure requirement at all. JEDEC could, instead, simply require all members to agree that, if they obtained patents covering technologies that were included in JEDEC standards, they would license those patents on RAND terms.[67] This alternative would have achieved all the benefits obtained by a disclosure obligation, without the anticompetitive cost of required surrender of legitimate trade secrets.[68]

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[67] Indeed, this is what JEDEC Council member Hans Wiggers understood the rule to be. Wiggers, Tr. 10591. If members were unwilling to make a blanket RAND

The fact that there is an obviously less restrictive alternative to the disclosure requirement on which Complaint Counsel base their case should put an end to

long been concerned with the same risk. CCAB 31.

Complaint Counsel's argument fails because JEDEC's rules did not reflect any such single-minded objective, but rather embodied compromises and limitations that reflect other objectives. *See* Section II.C. Moreover, it is wrong as a matter of law because generalized claims about offensive conduct are not enough for an antitrust case. As the Supreme Court has made clear, it is not the purpose of the antitrust laws to regulate such issues; *other* laws "provide remedies for various 'competitive practices thought to be offensive to proper standards of business morality.'" *NYNEX Corp. v. Discon, Inc.*, 525 U.S. 128, 137 (1998) (quoting 3 P. AREEDA & H. HOVENKAMP, ANTITRUST LAW ¶ 651d, p. 78 (1996)); *see also Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 225 (1993) ("Even an act of pure malice by one business competitor against another does not, without more, state a claim under the federal antitrust laws"); *Conoco, Inc. v. Inman Oil Co.*, 774 F.2d 895, 905-6, 908-9 (8th Cir. 1985) (antitrust laws not violated by conduct that violates common law duty of good faith and fair dealing).

Complaint Counsel purport to find a free-standing antitrust duty in two sources, both of which they misconstrue. The first is a 1981 article by FTC Chairman Muris, which analyzes the phenomenon of common law courts reading implicit terms into contracts to avoid opportunism by one of the parties. By a process of creative extraction, Complaint Counsel quote general language from the article for the proposition that, as regards standard setting organizations:

> "The antitrust laws and the FTC Act provide a remedy when a member of such an organization nevertheless captures the standard – whether by violating the organization's express rules or by circumventing those rules in a manner 'contrary to the other [parties'] understanding . . . but not necessarily contrary to [the rules'] explicit terms.' – and thereby acquires monopoly power."

CCAB 36 (quoting Timothy J. Muris, *Opportunistic Behavior and the Law of Contracts*,

65 MINN. L. REV. 521 (1981)).

The kind of equitable contract construction described in Chairman Muris's article does not, however, bear the meaning Complaint Counsel ascribe to it. In the first place, the article did not purport to articulate a new standard for exclusionary conduct under the antitrust laws. Moreover, even in contract law, which was the subject of the article, implied duties of good faith are not intended to expand anyone's rights or duties.[70] Rather, they are intended only to ensure that the parties have the benefits and the obligations that they agreed upon – and no more. The Restatement puts it this way: The implied duty of good faith requires "faithfulness to an *agreed* common purpose and consistency with the *justified* expectations of the other party."[71] Thus, as one commentator has explained, good faith performance simply requires a party to use its discretion "for any purpose within the reasonable contemplation of the parties at the time of formation." Matters of "good faith," therefore, could help Complaint Counsel here only if they had proven that the parties – JEDEC and Rambus – had a clear understanding of the disclosure requirements, and that the rules themselves had failed to capture that understanding. That is precisely what Complaint Counsel failed to prove.

Complaint Counsel also rely on two Supreme Court cases in support of its "hijacking" argument. But those cases differ from this case in two fundamental respects. First, they involved horizontal agreements that violated Section 1 of the Sherman Act, 15 U.S.C. § 1, and thus raised very different antitrust issues from those raised in a single-

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firm case like Complaint Counsel's case here.[72] In *Indian Head, Inc. v. Allied Tube & Conduit Corp.*, 817 F.2d 938 (2d Cir. 1987), *aff'd*, 486 U.S. 492 (1988), the defendant conspired with other steel companies to take control of the standard setting organization in order to exclude the plaintiff's competing plastic prod

a. The Violation Of A Duty Extrinsic To The Antitrust Laws Is Not Enough To Establish Antitrust Liability

Even if Complaint Counsel had shown that Rambus's conduct violated JEDEC's rules and that those rules were not anticompetitive, they would still not have established that Rambus's conduct was exclusionary under the antitrust laws. It has long been clear that whether conduct is exclusionary cannot be determined simply by reference to non-antitrust duties or standards. As Judge Posner put it, exclusionary conduct cannot be determined by liability "in tort or contract law, under theories of equitable or promissory estoppel or implied contract . . . or by analogy to the common law tort" rules. *Olympia Equip. Leasing Co.*, 797 F.2d at 376.

The courts have repeatedly made clear that a violation of a non-antitrust rule, statute, or ethic – even those that promote social welfare – is not itself exclusionary conduct. The Supreme Court removed any doubt about this point in its decision earlier this year in *Trinko*, holding that an antitrust claim cannot be based simply on duties extrinsic to antitrust, even those arising from a federal statute enacted for an explicitly procompetitive purpose. *See Trinko*, 124 S.Ct. at 883. Rather, the Court said, the legal standard for a monopolization case is whether the defendant's activity "*violates preexisting antitrust standards*." *Id*. at 878.

The refusal of the antitrust laws simply to equate a violation of non-antitrust rules with exclusionary conduct applies with special force in cases involving policies created by private organizations such as JEDEC. Such policies in general are intended to achieve the private goals of the parties and do not necessarily further antitrust goals. Accordingly, antitrust law, "framed to preserve normal competitive forces," does not, for instance, "police the performance of private contracts."

452 F.Supp. 1288, 1291 (S.D.N.Y. 1978) (no antitrust liability for violation of laws preventing "deception or overreaching" in the securities markets). As the Fifth Circuit put it, "[a]ntitrust law is rife with . . . examples of what competitors find to be disreputable business practices that do not qualify as predatory behavior." *Taylor Publ'g Co. v. Jostens Inc.*, 216 F.3d 465, 476 (5th Cir. 2000).

b. To Establish Exclusionary Conduct, A Plaintiff Must Demonstrate That Defendant's Conduct Lacked A Legitimate Business Justification

(1) Exclusionary Conduct Is Determined Pursuant To The "Sacrifice" Test

As a general rule, conduct is exclusionary for antitrust purposes only if it would be unprofitable to the defendant but for the defendant's expectation that it will exclude rivals and thereby enable the defendant to gain additional market power with which to recoup the losses caused by the conduct. *See, e.g.*, *Aspen Skiing*, 472 U.S. at 610-11 (defendant was "willing to sacrifice short-run benefits and consumer goodwill in exchange for a perceived long-run impact on its smaller rival");

will not deter – competition on the merits, *i.e.*, conduct that makes business sense because, for example, it reduces the defendant's costs, improves the defendant's products, or provides rewards for innovation.[74] By condemning only conduct that makes no sense apart from exclusion and resulting market power, the sacrifice test ensures that the antitrust laws condemn only conduct from which an anticompetitive intent can unambiguously be inferred. And the test provides simple, effective and meaningful guidance to firms so that they will know how to avoid antitrust liability without steering clear of procompetitive conduct.

This basic requirement for exclusionary conduct would apply here, even if Rambus had failed to comply with either a JEDEC disclosure rule or a duty of good faith. *See, e.g.*, *Trinko*, 124 S.Ct. at 878; Brief for the United States and the Federal Trade Commission as Amicus Curiae Supporting Petitioner, *Verizon Communications, Inc. v. Trinko*, No. 02-682, at 13 (May 27, 2003), *available at* http://www.usdoj/gov/atr/cases/F201000/201048.htm ("*Trinko* Merits Br.") 27 ("Here, petitioner is alleged to have breached contractual and regulatory requirements . . . . Unless that conduct would not make economic sense apart from a tendency to impair or forestall competition, it is not exclusionary and is not actionable under Section 2."). For example, in *Conoco, Inc. v. Inman Oil Co.*, 774 F.2d 895 (8th Cir. 1985), a distributor of petroleum products brought suit against its franchisor alleging that the franchisor's bidding for contracts in competition with the distributor constituted both a breach of the implied obligation of good faith and fair dealing between the parties and an attempt to monopolize. While holding that bidding against its franchisee *did* breach the franchisor's implied obligation

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[74] Invoking rhetoric of an earlier age, Complaint Counsel repeatedly suggest that conduct is legitimate for antitrust purposes only if it furthers *static* efficiency by reducing prices or improving efficiency. *See, e.g.*, CCAB 30 n.28, 53-54. These formulations ignore the important, legitimate, dynamic benefits – to the innovation process, efficiency, and competition – from the protection of Rambus's trade secrets.

of good faith and fair dealing, the Court held that the conduct was *not* exclusionary because the franchisor had a legitimate business reason unrelated to the elimination of competitors – obtaining a new customer. *Id.* at 905-06, 908-09.[75]

Complaint Counsel do not directly dispute that the sacrifice test is the controlling standard for exclusionary conduct; nor could they, given the fact that the Department of Justice and the Federal Trade Commission have repeatedly endorsed that definition.[76] But they attempt to divert attention from the requirements of the test by quoting earlier and more general formulations, such as the requirement that exclusionary conduct is conduct that does not further competition or does so in an unnecessarily restrictive manner. *See* CCAB 30. That general language, however, is not inconsistent with the test for exclusionary conduct that the Justice Department, the Commission and the courts have repeatedly embraced. To the contrary, the sacrifice test is simply a more precise way of identifying conduct that does not further competition.

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[75] *See also Brookside Ambulance Serv., Inc.*, 1994 WL 592941, at *3 (per curiam) (table) (even if it violated existing protocol, defendant ambulance company's practice of "run-jumping" was "not anticompetitive" for antitrust purposes because the practice maximized defendant's ability to receive calls and promoted efficient use of its ambulance fleet; a firm, "regardless of its market power," may promote efficiency).

[76] *See* Brief for the United States and the Federal Trade Commission as Amicus Curiae on Petition for a Writ of Certiorari, *Verizon Communications, Inc. v. Trinko*, No. 02-682, at 13 (December 2002), http://www.usdoj.gov/atr/cases/f200500/200558.htm ("*Trinko* Cert. Br.") (conduct is exclusionary only when it "would not make economic sense unless it tended to reduce or eliminate competition"); *see also, e.g., Trinko* Merits Br. (refusal to deal); Brief of the United States, *United States v. Dentsply Int'l, Inc.*, at 18, 26-27 No. 03-4097 (3d Cir. January 2004) (exclusive dealing); Brief for Appellees United States and the State Plaintiffs, *United States v. Microsoft Corp.*, at 48, Nos. 00-5212, 00-5213 (D.C. Cir., January 2001) (various exclusionary practices); Brief for the United States as Amicus Curiae, *Consolidated Rail Corp. v. Delaware & Hudson Ry. Co.* (Sup. Ct. April 1991) (refusal to deal).

(2) The Sacrifice Test Applies Particularly To Cases Like This One, In Which A Defendant Refuses To Share With Competitors

Complaint Counsel's economist did not dispute – because he could not – that, had Rambus never attended a JEDEC meeting, the world – and the JEDEC standards in it – *would be identical to the way we find them today*. IDF 1118, 1054. On Complaint Counsel's theory, therefore, competition was impaired, not by anything Rambus did, but by what Rambus did not do – because Rambus did not share its trade secrets with others. Complaint Counsel's case is thus based on a "duty to deal" theory – a claim that Rambus had a duty to share its property with others.

The Supreme Court in *Trinko* reiterated the general rule that a firm's refusal to share its property with other firms (whatever other duties such refusal may breach) does not violate the antitrust laws. It advised "cautio[n] in recognizing . . . exceptions, because of the uncertain virtue of forced sharing and the difficulty of identifying and remedying anticompetitive conduct by a single firm." 124 S.Ct. at 879. The Court emphasized that cases that have found a duty to deal, like *Aspen Skiing* (which the Court also cautioned lay "at or near the outer boundary of § 2 liability," *id.*), ask whether defendant's "course of dealing suggested a willingness to forsake short-term profits to achieve an anticompetitive end," *id*. at 880.

In its brief in *Trinko*, the Commission made clear why application of the sacrifice test is particularly important in a duty-to-deal context:

> In the context of an alleged refusal to assist a rival, conduct is exclusionary only if it would not make business or economic sense apart from its tendency to reduce or eliminate competition. That demanding standard is necessary to ensure that the Sherman Act promotes competition. A more generalized duty would rarely enhance consumer welfare and would threaten to impair the competition the antitrust laws are designed to promote.

Trinko Merits Brief 7. As the Commission went on to explain, regardless whether conduct violates such a duty or is otherwise actionable, if the "monopolist's refusal to deal (*or, as here, breach of an agreement to deal*) on particular terms does make business sense apart from exclusionary consequences, *antitrust law* should avoid interfering with such business choices." *Trinko* Merits Brief at 20 (emphasis added).

Indeed, although *Trinko* itself did not involve intellectual property, the reluctance of courts to recognize a duty to deal cognizable under antitrust law is particularly pronounced where the requested forced sharing arises in the context of intellectual property. *See generally In re Independent Service Organization Antitrust Litigation*, 203 F.3d 1322 (Fed. Cir. 2000).

decision to protect its trade secrets did not make business sense. Nor is there any basis to conclude, as Complaint Counsel now suggest in footnote, that Rambus's desire to protect its intellectual property was not "a form of competition on the merits." *See* CCAB 53, n.59, *quoting United States v. Microsoft Corp.*, 253 F.3d 34, 59 (D.C. Cir. 2001).

Instead, Complaint Counsel argue that Rambus's business justification is pretextual. *See* CCAB 55-56. Complaint Counsel reason that, if Rambus had been truly concerned about the loss of its trade secrets, it would not have chosen "to join and participate in a standard-setting organization which required disclosure of relevant patent information," *id.* at 55, and thereby risked its ability to enforce its patents in order to obtain a monopoly over JEDEC-compliant products. This argument ignores, however, Judge McGuire's findings that Rambus's counsel advised that Rambus would have no obligation to disclose the kind of trade secret information at issue in this case if it followed a specified course of conduct and that Rambus followed that course. IDF 929-38.

More important, Complaint Counsel's argument is internally inconsistent and illogical. If Rambus knew when it joined JEDEC, as Complaint Counsel argue, that it was required to disclose its patent interests, then the scheme alleged by Complaint Counsel would be irrational. As Complaint Counsel's economist admitted, Rambus would have known that its efforts to enforce its patents after the industry was locked in to its technologies would have revealed its failure to disclose its patent interests earlier and would thus have made it impossible for Rambus to enforce its patents. IDF 1109. Rambus would, in other words, have anticipated no payoff from the scheme alleged by Complaint Counsel. *See* RPF 1472-75. The more sensible explanation, then, is that Rambus thought it was entitled to protect its trade secrets and chose to protect them for the legitimate and ordinary reasons that firms routinely protect their similar trade secrets.

D. Complaint Counsel Failed To Prove That Rambus's Conduct Caused Any Anticompetitive Effects

In addition to proof of exclusionary conduct, antitrust law requires that plaintiffs prove that the challenged conduct caused anticompetitive effects. *See Spectrum Sports*, 506 U.S. at 458. Complaint Counsel thus concede that there must be a "causal link" between the conduct at issue and the acquisition of monopoly power. CCAB 74. In an effort to meet this burden, Complaint Counsel tried a two-pronged approach. First, they sought to show a causal connection by proving that JEDEC would not have adopted Rambus's technologies in SDRAM or DDR but for the challenged conduct. Second, because the evidence weighed against them, Complaint Counsel argued that causation should nonetheless be inferred under a lower standard or proof. Neither approach

1152 (9th Cir. 1997) (monopolization claim based on alleged false advertising requires proof of reliance). The evidence, however, shows that JEDEC members were not misled by Rambus's conduct:

! When Rambus joined JEDEC, JEDEC members were concerned that Rambus might obtain patents covering technologies being

- Based on this evidence, Judge McGuire correctly found that "the evidence does not support the contention that JEDEC was misled." IDC 282.

Complaint Counsel cannot escape the requirement to show that Rambus's conduct actually caused JEDEC to adopt Rambus's technologies simply because JEDEC's choices involved several decision makers. *See* CCAB 75 n.73, 90. Proof of causation necessarily involves "deconstructing the decision-making process to ascertain what factors prompted" JEDEC's decisions. *Sessions Tank Liners v. Joor Mfg., Inc.*, 17 F.3d 295, 300 (9th Cir. 1994) (monopolization claim based on misrepresentations to decision making body); *Heary Bros. Lightning Prot. Co. v. Lighting Prot. Inst.*, 287 F.Supp.2d 1038, 1049-50 (D. Ariz. 2003) (antitrust claim based on misrepresentation to standard-setting body requires "deconstructing the decision-making process"). That deconstruction shows just the opposite of what Complaint Counsel expected:

- Even with full knowledge of Rambus's issued patents, JEDEC and its members have freely chosen to use the Rambus technologies in new standards. Knowing that Rambus claimed intellectual property rights to the four at-issue technologies, JEDEC explored but rejected alternatives to Rambus's technologies for the new DDR2 standard. *See* Section II.G.1.a; IDF 1486-1535. Similarly, even after Rambus began to assert its patents, Micron, Infineon, and Cisco – JEDEC members all – developed RLDRAM, which uses the Rambus technologies. *See* Section II.G.1.b.

- This is not surprising: The evidence shows that Rambus's technologies are superior in cost-performance terms to the available alternatives, even accounting for Rambus's royalties. *See* Section II.G.2; IDF 1260-79, 1388-1402. A rational, profit-maximizing JEDEC member would have selected Rambus's technologies. IDF 1278-79, 1401-02. Further, the evidence shows that JEDEC members in fact seek the best alternatives in cost performance terms. RRPF 2650.

- [illegible]

> parties would have negotiated licenses *ex ante*. IDF 1432-63. Rather, the evidence shows that licenses would have been negotiated after Rambus's patents issued – the same time they were negotiated in the real world. Thus, JEDEC members would be paying the same reasonable and nondiscriminatory royalties that they currently pay to Rambus. IDC 324-26.

What is more, Complaint Counsel failed to prove that the industry could not switch to competing technologies. This is fatal to Complaint Counsel's case. *See, e.g.*, *Alcatel USA, Inc. v. DGI Techs., Inc.*, 166 F.3d 772, 783-84 (5th Cir. 1999) (rejecting monopolization claim because plaintiff failed to prove significant switching costs); *United Farmers Agents Ass'n v. Farmers Ins. Exch.*

to the offenses they have alleged.

For this extraordinary

67, 78; *United States v. Microsoft Corp.*, 87 F.Supp.2d 30, 39 (D.D.C. 2000), *aff'd in relevant part*, 253 F.3d 34 (D.C. Cir. 2001). The court found that, but for that conduct, Netscape might have flourished in competition with Microsoft's browser and that a successful Netscape browser might have served as a middleware platform that would have stimulated entry into the desktop operating system market and thus eroded Microsoft's monopoly there. *Microsoft*, 253 F.3d at 79; 87 F.Supp.2d at 38-39. The court also found that Microsoft's success in crippling Netscape by its exclusionary conduct made it impossible for the court to determine directly whether these other, subsequent events would have come to pass. *Microsoft*, 253 F.05 Tc-001wRj-a1d6ihether toese

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therseqdired ffrec oin competitio, solelys not excluded Netscape from the effective means of distribution. Here, by contrast, there is substantial experience with the kinds of events alleged by Complaint Counsel, and the evidence provides a sufficient basis for the court to conclude that Complaint Counsel have failed to prove the required "causal link." The evidence shows, for example, that patent interests have been disclosed to JEDEC on several occasions and yet never caused JEDEC to adopt a different standard. *See* IDF 1481. The evidence also shows that there were no viable alternatives to Rambus's technologies (*see* IDF 1128-1402); that DRAM standards succeed, even if not selected by JEDEC, and fail, even if chosen by JEDEC – that, in other words, the success of standards depends on their merit, not JEDEC's imprimatur (*see* IDF 1039-41, 1043-48); and that nothing prevents the DRAM industry from switching to different standards if there are viable alternatives to Rambus's technology (*see* IDF 1582-1665). All of these facts are knowable in light of the record in this case, but Complaint Counsel would like the Court to ignore the evidence and to relieve them of their burden to prove causation. Nothing in the *Microsoft* case supports that.

The Areeda & Hovenkamp treatise on which the *Microsoft* court relied makes clear that causation cannot be inferred under circumstances like those here. "[B]efore [an inference] can properly be used against the defendant, it must at least appear plausible" that the challenged conduct "could have had, or would probably have, a *significant relationship* to the defendant's monopoly," 3 ANTITRUST LAW ¶ 651c, at 78 (emphasis added), and that the monopoly power would not have been attained absent the challenged conduct. *See also Grinnell*, 384 U.S. at 570-71 (requiring proof that defendant acquired monopoly power through anticompetitive conduct rather than a superior product). It is, therefore, not enough to link inference upon inference, as Complaint Counsel urge. Complaint Counsel must at the very least prove a likely causal connection. That takes Complaint Counsel back to the evidence, which does not support their claim.

(3) As The Portion Of The *Microsoft* Decision Omitted By Complaint Counsel Makes Clear, A Higher Standard Of Proof Of Causation Applies In Light of the Remedy Complaint Counsel Seek

Complaint Counsel's reliance on inference is especially inappropriate in light of the kind of remedy Complaint Counsel seek. As Areeda and Hovenkamp explain, "[t]he causal connection between conduct and power can be relatively modest when the only remedy sought is an injunction against continuation of that conduct." 3 ANTITRUST LAW, ¶ 650a(2)(A) at 67. By contrast, relief that goes beyond an order to refrain from specified conduct and that targets the monopoly itself, such as divestiture or in this case forfeiture of intellectual property rights, "raise[s] more serious questions and require[s] a clearer indication of causal connection between the conduct and creation or maintenance of the market power." *Id.* ¶ 653b at 98. Not surprisingly, even the *Microsoft* court, which found inference of causation to be appropriate under the circumstances there, cautioned that significant remedies may not be imposed where causation is merely inferred: Such remedies require "a clearer indication of a significant causal connection between the conduct and . . . the market power" and are not appropriate "[a]bsent some measure of confidence that there has been an *actual* loss to competition" resulting from the challenged conduct. *Microsoft*, 253 F.3d at 80 (emphasis added).

(4) Chairman Muris's Articles Do Not Support Complaint Counsel's Reliance On Inference

Similarly, Chairman Muris's writings do not support the notion of short-circuiting the usual requirement of proving anticompetitive effects in FTC cases. To the contrary, they criticize efforts to avoid such proof as "wrong on the law, wrong on policy, and wrong on the facts." Timothy J. Muris, *The FTC and the Law of Monopolization*

ANTITRUST L. J. 693, 694 (2000).[81]

As Chairman Muris explained:

> "Recent Supreme Court pronouncements have confirmed that no matter how bad a firm's conduct is, or how injurious to rivals, there can be no Section 2 violation without injury to competition. . . . Both the history of Supreme Court cases, as well as an analysis of the weak empirical foundation of much of modern economic theory, suggest that so-called exclusionary conduct can be condemned as monopolistic only after a full analysis, including consideration of whether the practice in fact has an anticompetitive impact."[82]

These cautions against inference sound particularly loudly in a case like this one, in which the defendant's underlying conduct – nondisclosure of trade secrets – has competitive value and where the antitrust theories on which Complaint Counsel's case rest are novel and untested.[83]

2. Even If Complaint Counsel Had Proven That JEDEC Would Have Adopted A Different Standard, Complaint Counsel Still Failed To Prove That Rambus's Conduct Injured Competition

Even if Complaint Counsel had proven that JEDEC would have eschewed Rambus's technologies if Rambus had made the additional disclosures and that Rambus gained market power as a result of not having made the disclosures, they would still have failed to prove that Rambus's conduct injured competition within the meaning of the

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[81] *See also*, Timothy J. Muris, *Anticompetitive Effects in Monopolization Cases: Reply*, 68 ANTITRUST L. J. 325, 327 (2000) (rejecting "claim that the government did not have the burden of demonstrating anticompetitive effects").

[82] *See also*, Muris, *Anticompetitive Effects*, at 329 (government's past record of condemning practices as anticompetitive "should also convince us to reject any attempt to make it easier for the government to win section 2 cases").

[83] It is noteworthy in this connection that the court in the *Microsoft* case condemned Microsoft's conduct only after concluding that it had no efficiency benefits whatsoever.

antitrust laws.

Complaint Counsel were required to prove injury to competition in the market as a whole. Ordinarily, proof that the defendant gained market power is sufficient for that purpose. But that is not sufficient here because, on Complaint Counsel's theory, the market is a winner-take-all market whose

Because standard setting organizations make choices directed at maximizing private interests rather than the interests of the public, conduct that alters those choices does not necessarily cause anticompetitive effects. *See* McAfee, Tr. 7536-37 (exclusion of inferior technology is not exclusionary). This is especially true if, as Complaint counsel argue, JEDEC did not seek the best technologies in cost/performance terms.

To prevail in this case, therefore, Complaint Counsel must prove that JEDEC would have adopted equal or superior, noninfringing alternatives if Rambus had made the additional disclosures.[85] The evidence shows, however, that Rambus's technologies were superior to the alternatives in cost/performance terms, even taking into account royalties charged by Rambus. IDF 1260-79, 1388-1401. Their inclusion in the JEDEC standard and their use by the industry thus benefited consumers and DRAM manufacturers and thereby enhanced "the welfare of the public" and promoted "economic efficiency" IDF 1401; s*ee also* IDF 1464, 1532, 1616.[86] And the royalty payments – which as explained are consistent with RAND – provide Rambus with the intended reward for its inventions.

Complaint Counsel attempt to elide their failure to prove harm to competition by arguing that JEDEC members considered certain "price-constraining substitutes" and that their consideration of those alternatives "should be determinative"

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[85] *Cf.* Muris, *The FTC and the Law of Monopolization*, 67 Antitrust L. J. 693, 719 (2000) ("consumers are harmed" when "the winner is not the best product available").

[86] Indeed, public welfare and economic efficiency are served by the use of Rambus's technologies, even if – contrary to the evidence in this case – the royalties exceed the extent to which those technologies are superior to the alternatives. The reason is this: From the perspective of "economic efficiency," a royalty payment is not a real cost because, unlike the cost of labor or raw materials, it does not use economic resources; it is just a transfer payment from the licensee to the licensor. *See* Teece & Sherry, *supra*, 87 MINN. L. REV. at 1931-33. While a royalty requirement does impose a *private* cost on DRAM manufacturers, overall social welfare is disserved by the use of inferior technologies, even if those technologies are royalty-free. *See id.*

with "no need to go further."[87] CCAB 83. But the fact that JEDEC considered and rejected inferior alternatives of course does not prove injury to competition. Moreover, neither Complaint Counsel nor their economist ever defined in any meaningful way what "price constraining" means (IDF 1483-84 ("price constraining" not equivalent to an economic substitute)); on Complaint Counsel's theory, an alternative could in fact constrain price only if there is *ex ante* bargaining, but that would not have happened; and this argument in any event shows neither that Rambus would have had less market power in the but for world nor that manufacturers or consumers would have been better off in that world.

Accordingly, even if Complaint Counsel had shown that JEDEC and the industry would have chosen different standards had Rambus made additional disclosures, Complaint Counsel would still not have proven the requisite injury to competition. To prove that Rambus's failure to make the disclosures injured competition, Complaint Counsel had to show that Rambus's conduct excluded superior technologies. Complaint Counsel have failed to prove that.

E. No Part Of The Remedy Complaint Counsel Seek Is Supported Legally Or By The Evidence

Complaint Counsel's proposed remedy would preclude Rambus from (1) pursuing any legal action in which it claims that any person or entity is infringing, or has infringed, Rambus's patents through the manufacture, sale or use of any JEDEC-compliant product; (2) pursuing any legal action in which it claims that any person or entity is infringing, or has infringed, Rambus's foreign patents through the manufacture,

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[87] In a variation on this argument, Complaint Counsel charge that Judge McGuire was "obsess[ed]" with "objectively equal or superior to the selected technologies," CCAB 91, and argue that dete

sale or use of any JEDEC-compliant product; and (3) collecting "fees, royalties or other payments" for the "manufacture, sale or use of any JEDEC-Compliant Product pursuant to any existing License Agreement." CCFF, Proposed Order ¶¶ II-VI.

1. Absent Proof That Rambus's Conduct Actually Caused Anticompetitive Effects, Complaint Counsel May Not Receive The Remedy They Seek

As a threshold matter – as set forth in Section III.D.b.(3) above – none of these remedies is available unless Complaint Counsel has proven both that Rambus engaged in exclusionary conduct and that such conduct *in fact* caused injury to competition. While "[t]he causal connection between conduct and power can be relatively modest when the only remedy sought is an injunction against continuation of that conduct," 3 ANTITRUST LAW, ¶ 650a(2)(A) at 67, relief that goes beyond an order to refrain from specified conduct and that targets the monopoly itself "raise[s] more serious questions and require[s] a clearer indication of causal connection between the conduct and creation or maintenance of the market power." *Id.* ¶ 653b at 98.

The remedies Complaint Counsel seek thus require "a clearer indication of a significant causal connection" and are not appropriate "[a]bsent some measure of confidence that there has been an *actual* loss to competition" resulting from the challenged conduct. *Microsoft*, 253 F.3d at 80 (emphasis added).

2. Complaint Counsel's Proposed Remedy Is Overly Broad And Unsupported

Even if there were evidence sufficient to show a causal connect between Rambus's conduct and injury to competition, Complain7uls--065(py)0789(nduct)]TJ/TT6 14.424.0829

448 U.S. 176, 215 (1980). *Royalty-free* compulsory licensing is almost unheard of.[88] *See*, *e.g.*, *United States v. National Lead Co.*, 332 U.S. 319, 338-49 (1947) (rejecting decree imposing the issuance of royalty-free patent licenses); *Hartford-Empire Co. v. United States*, 323 U.S. 386, 415 (1945) (holding that decree in an antitrust case compelling royalty-free licensing of valid patents would amount to forfeiture of defendants' property and that the decree should be modified to allow for reasonable royalties).[89] Indeed, Complaint Counsel in *VISX* candidly admitted that they could find no authority for the Commission's ability to impose such a remedy: "The Commission's ability to order that a presumptively valid patent not be enforced is unsettled. We are unaware of an antitrust court that has ordered that an antitrust defendant not enforce a valid patent." Complaint Counsel's Motion To Dismiss The Complaint, *In the Matter of VISX, Inc.*, Dkt. No. 9286 (filed December 1, 1999) (available at www.ftc.gov/os/adjpro/d286/index.htm), at 7 n.5.[90]

In their briefs below, Complaint Counsel did manage to find some ancient authority for their proposed remedy: a 1952 district court case and *dicta* in a Commissioto4ng is wr124c opinion. Neither of these authorities, however, supports the imposition of royalty-free licensing in this case. In *United States v. General Electric Co.*, 115 F.Supp. 835 (D.N.J. 1952), the patent holder had "an arsenal of a huge body of patents that can easily overwhelm and defeat competition by small firms desiring to stay in or gain a foothold in the industry." *Id.* at 844. The court specifically found that royalty-free licensing was required on the grounds that "*any* licensing fees may prove an important factor in limiting or inhibiting the growth of competition" and that the patentee's competitors were "unequipped to engage in litigation." *Id.* (emphasis added).

The Commission's *dicta* cited by Complaint Counsel is likewise limited. In *In re American Cyanamid Co.*, 72 F.T.C. 623, 1967 LEXIS 43 (1967), the Commission ordered compulsory licensing at a 2.5% royalty rate but commented that "where the circumstances justify such relief, the Commission has the authority to require royalty free licensing." 1967 FTC LEXI royalty rates could be a permissible remedy in this case. *See United States v. Glaxo Group, Ltd.*, 410 U.S. 52, 59 (1973) (referring to "reasonable-royalty licensing" as a "well-established form[] of relief when necessary to an effective remedy" in an antitrust case).[91] If the Commission were to impose this requirement, it would need to determine an appropriate royalty rate.

What would be a reasonable and nondiscriminatory rate, however, has already been answered. As Judge McGuire found, the evidence shows that Rambus's existing royalty rates meet this criterion. IDF 1536-81. The evidence supporting this conclusion is overwhelming. *See* Section II.G.3.c. Moreover, it stands unrebutted; Complaint Counsel did not offer any testimony from their economist or any other witness as to what would be a reasonable royalty rate for Rambus's patents.[92] And on appeal, Complaint Counsel did not challenge Judge McGuire's findings on this issue. Thus, the evidence could at most support a Commission order mandating that Rambus continue to offer licenses on the existing terms.

Beyond that, Complaint Counsel's proposed remedy is unsupported. First, by precluding Rambus from pursuing damages for past infringement, the proposed remedy effectively seeks disgorgement of monies Rambus is owed. But the Commission may pursue that type of remedy only through litigation in district court. *See FTC v. Mylan Lab., Inc.*, 62 F.Supp.2d 25, 36-37 (D.D.C. 1999).

Second, the scope of the proposed remedy is overly broad. It would apply to *all* of Rambus's patents with a priority date prior to June 17, 1996, not just those patents for which Complaint Counsel presented evidence. It would also apply to all

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essential elements of their claims, and their claims are legally deficient. The Commission should affirm Judge McGuire's Initial Decision in its entirety.

CROSS APPEAL

JUDGE MCGUIRE ERRED IN NOT REQUIRING COMPLAINT COUNSEL TO MEET A CLEAR AND CONVINCING BURDEN OF PROOF AS TO CERTAIN ISSUES.

Under *Steadman v. SEC*, 450 U.S. 91 (1981), the standard of proof applicable in most formal adjudicative agency proceedings is the preponderance of evidence standard. *See, e.g.*, *In re Advetist Health System/West*, 117 F.T.C. 224, 297 (1994). As Rambus contended below, however, Complaint Counsel in this case should be required to meet a clear and convincing burden of proof with respect to the essential elements of their claims. In his Initial Decision, Judge McGuire disagreed at least in part and held that "the government's case in th

Circuit has explained, this system "serves a very positive function in our system of competition, i.e., 'the encouragement of investment based risk,'" which in turn "'encourages innovation and its fruits: new jobs and new industries, new consumer goods and trade benefits.'" *Loctite Corp. v. Ultraseal, Ltd.*, 781 F.2d 861, 876-77 (Fed. Cir. 1985) (citation omitted).

Precisely because a patent confers exclusive rights, a patentee that attempts to enforce a patent is often faced with threats of antitrust liability. Most commonly, the defendant accuses the patentee of obtaining market power improperly by withholding material information from the patent office in the course of obtaining the patent. Such claims are called "*Walker Process*" claims, after the Supreme Court's decision in *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*, 382 U.S. 172 (1965), which allowed the fraudulent procurement of a patent to form the basis for an antitrust claim under certain circumstances.

The courts have consistently required parties asserting *Walker Process* claims to prove the elements of fraud with "clear and convincing" evidence. *See, e.g.*,

See, e.g.,form the basis for an antitrust

As Complaint Counsel pointed out below, this is not a private antitrust suit brought in federal court, and the Administrative Procedure Act has been held to require that an administrative agency need satisfy only a preponderance of the evidence burden in most agency proceedings. *See Steadman*, 450 U.S. at 95. This Commission, however, has acknowledged the tension between the interests served by the patent and antitrust laws and has expressly adopted the "clear and convincing" standard of proof in Section 5 cases based on the allegedly fraudulent procurement of a patent. As early as the 1960's, in the *American Cyanamid* cases, the Commission observed that "[w]here fraud in the procurement of a patent has been allege

> (1) an antitrust claim based upon the allegedly fraudulent procurement of a patent requires, in part, that the Commission present "[c]lear and convincing evidence of an intent to deceive the examiner and reliance must be adduced"; and
>
> (2) to establish inequitable conduct, "clear and convincing evidence must demonstrate both the materiality of the reference . . . and a deceptive intent in withholding the reference. . . ."

Initial Decision, *In the Matter of VISX, Inc.*, Dkt. No. 9286 (filed May 27, 1999) (available at www.ftc.gov/os/adjpro/d9286/index.htm) ("VISX Initial Decision"), pp. 111, 139. Complaint Counsel conceded the correctness of this approach, noting in their Post-Hearing Brief that to find either fraud or inequitable conduct, "[m]ateriality, intent and 'but for' all must be proved by clear and convincing evidence, evidence 'which proves in the mind of the trier of fact an abiding conviction that the truth of [the] factual contentions [is] highly probable.'" Complaint Counsel's Post-Hearing Brief, *In the Matter of VISX, Inc.*, Dkt. No. 9286 (filed April 7, 1999), p. 9 n.26 (citations omitted) (available in Commission file).

After reviewing the evidence, Judge Levin dismissed the fraud and inequitable conduct claims. As he explained:

> The patent grant allows the patentee to exclude competition in the use of the patented invention, and the absence of clear and convincing evidence of concealment or omission of the prior art with intent to deceive necessarily strips complaint charges of monopolization, attempted monopolization, and unfair competition of all foundation and support. Absent fraud or inequitable conduct, the other elements of the violations alleged in the complaint are not material under Rule 3.51(c)(1). Since Complaint Counsel have failed to adduce clear and convincing evidence that prior art was either withheld or omitted with intent to deceive the PTO, a Section 5 violation cannot, as a matter of law, be sustained against VISX on *Walker Process* or *American Cyanamid* grounds. Accordingly, Count 3 of the complaint must be dismissed.

VISX Initial Decision, p. 145.[95]

Complaint Counsel argued below that they had not asserted a *Walker Process* claim, and that *American Cyanamid* and *VISX* were not applicable here. There are, however, substantial similarities between the claims asserted in *Walker Process*, *American Cyanamid* and *VISX* and the claims asserted in the Complaint, and all of the policy considerations that required a "clear and convincing" burden of proof in those cases apply with equal force here. Here, as in those cases, the plaintiff alleged that the patentee's failure to disclose material information resulted in its obtaining monopoly power in a market that it otherwise would not have achieved. Here, as in those cases, the plaintiff alleged that the patentee's use of the courts to enforce its patents was part of an "anticompetitive scheme" to monopolize a market. The crux of the anticompetitive conduct alleged here – the failure to disclose material information and the bad faith enforcement of patents against manufacturers practicing JEDEC standards – is thus identical to the conduct that was held to the clear and convincing standard of proof in the *Walker Process* line of cases.

In his Initial Decision, Judge McGuire saw a distinction between this case and the *Walker Process* line of cases, holding that "[t]here is a fundamental difference between the failure to disclose material information to the Patent Office, to whom a duty of candor is owed, and the failure to disclose information *to competitors*, alleged here." IDC 242 (emphasis added). Judge McGuire overlooked the fact that Complaint Counsel had alleged that Rambus did indeed have a "duty to candor" towards its competitors that required it to "disclose information to" those competitors. Complaint Counsel continue to make that argument on appeal. *See* CCAB 42 (arguing that Rambus's failure to

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[95] The Commission subsequently granted Complaint Counsel's motion to dismiss an appeal from Judge Levin's Initial Decision. *See* Order Reopening The Record and Dismissing The Complaint, *In the Matter of VISX, Inc.*, Dkt. No. 9286 (filed February 9, 2001) (available at www.ftc.gov/os/caselist/d9286.htm).

disclose patent-related information to its competitors violated "the implied duty of good faith that arises from any joint undertaking such as cooperative standard-setting."). The need for a heightened burden of proof is even *more* pronounced where the Government seeks to impose antitrust liability not because of a violation of an unambiguous PTO rule, as in the *Walker Process* cases, but because of a violation of some amorphous, untested "duty of good faith," as is the case here.

Complaint Counsel should also be held to a heightened burden of proof in this case because of the nature of the remedy sought. As the Patent and Trademark Office has acknowledged, the inventions at issue here sprang from the creative genius of two men, who were awarded patent rights by the Government for a limited period of time. As a consequence of their efforts, these inventors have a constitutional and statutory right to be paid royalties for the use of their inventions by others. The courts have recognized this right to be a fundamental part of the bargain between the Government and an inventor. When an inventor discloses the invention to the Government, he or she agrees that after the patent term expires, the invention can be used by everyone for free. To induce inventors to agree to this donation, the Government awards the inventor the right during the patent term to be paid royalties for others' use of the invention. The Government also provides the inventor, in exchange for the inventor's donation, the right of access to the courts when an infringer will not pay royalties. *See generally CVD, Inc. v. Raytheon Co.*, 769 F.2d 842, 849 (1st Cir. 1985). See its right to recover for the use of its inventions and its right to have access to the courts to obtain judicial relief against infringers. As a consequence, Complaint Counsel must be required to meet a heightened burden of proof.[96]

A heightened burden of proof is also appropriate here because of the strong public policy considerations arising from the importance of standard-setting organizations in today's high-tech economy. The risks associated with participation in standards-setting must not be so great that innovators are deterred from participating by fear that a mistake in judgment, or an "after-the-fact morphing of a vague, loosely defined policy," could lead to forfeiture of valuable intellectual property. *Infineon*, 318 F.3d at 1102 n.10. See also *Inquiry Into Three Mile Island Unit 2 Leak Rate Data Falsification*, 1992 WL 910, *14 (N.R.C. 1992) (where an agency's examination of events comes well after the events transpired, and the resolution of important issues "depends on strained and faded memories, it would be unfair to find a person guilty of dishonest or fraudulent conduct on a me

UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION

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

CERTIFICATION

I, Jacqueline M. Haberer, hereby certify that the electronic copy of the *Brief of Appellee and Cross-Appellant Rambus Inc.* accompanying this certification is a true and correct copy of the