

ORAL ARGUMENT NOT YET SCHEDULED

Nos. 07-1086, 07-1124

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

RAMBUS INCORPORATED,

Petitioner,

v.

FEDERAL TRADE COMMISSION,

Respondent.

ON PETITIONS FOR REVIEW OF FINAL ORDERS OF THE
FEDERAL TRADE COMMISSION

BRIEF FOR PETITIONER

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to Rule 28(a)(1) of the Circuit Rules of the United States Court of Appeals for the District of Columbia Circuit, petitioner Rambus Inc. (“Rambus”) submits the following information:

(a) **Parties and Amici**: Rambus is the petitioner before this Court in both No. 07-1086 and No. 07-1124, represented by Wilmer Cutler Pickering Hale and Dorr LLP and Munger Tolles & Olson LLP. The respondent in both cases is the Federal Trade Commission. This Court has granted leave for JEDEC Solid State Technology Association, Samsung Electronics Co., Ltd., and S.M. Oliva to file amicus briefs. In addition, the following parties filed amicus briefs before the Commission: American Antitrust Institute, Inc.; Broadcom Corp.; Citizens for Voluntary Trade; Economics Professors and Scholars (including Joseph Farrell, Jay Pil Choi, Aaron S. Edlin, Shane Greenstein, Bronwyn H. Hall, and Garth Saloner); Freescale Semiconductor, Inc.; Gesmer Updegrove LLP; Hynix Semiconductor, Inc.; JEDEC Solid State Technology Association; Micron Technology, Inc.; nVidia Corporation; and Samsung Electronics Co., Ltd.

(b) **Rulings under Review**: Rambus seeks review of the following rulings:
(1) “Order Granting in Part and Denying in Part Respondent’s Petition for Reconsideration of the Final Order and Granting Complaint Counsel’s Petition for Reconsideration of Paragraph III.C of the Final Order” and accompanying

“Opinion of the Commission on Respondent’s and Complaint Counsel’s Petitions for Reconsideration of the Final Order,” together issued on April 27, 2007; (2) “Order Granting in Part and Denying in Part Respondent’s Motion for Stay of Final Order Pending Appeal” and accompanying “Opinion of the Commission on Respondent’s Motion for Stay of Final Order Pending Appeal,” together issued on March 16, 2007; (3) “Final Order of Respondent Federal Trade Commission in In re Rambus Incorporated, No. 9302” and accompanying “Opinion of the Commission on Remedy,” together issued on February 2, 2007; and (4) “Order Reversing and Vacating Initial Decision and Accompanying Order, Scheduling Supplemental Briefing on Issues of Remedy, and Denying Complaint Counsel’s Motion for Sanctions” and accompanying “Opinion of the Commission,” together issued on July 31, 2006.

(c) **Related Cases:** Rambus is not aware of any related cases. This case was not previously before this Court or any other court.

CORPORATE DISCLOSURE STATEMENT

Pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure and Rule 26.1 of the Circuit Rules of the United States Court of Appeals for the District of Columbia Circuit, petitioner Rambus Inc. (“Rambus”) submits the following disclosure statement: Rambus is a Delaware corporation engaged in the business of developing and licensing computer technology. Rambus has no parent corporation, and no publicly held corporation owns 10% or more of its stock.

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GLOSSARY

ALJ: Administrative Law Judge

CAS Latency: Column Address Strobe Latency

DRAM: Dynamic Random Access Memory

DDR SDRAM: Double Data Rate Synchronous DRAM

DDR2 SDRAM: Double Data Rate Two Synchronous DRAM

RDRAM: Rambus DRAM

SDRAM: Synchronous DRAM

EIA: Electronic Industries Association

FTC: Federal Trade Commission

JEDEC: JEDEC Solid State Technology Association (formerly known as the Joint Electron Device Engineering Council)

PLL/DLL: Phase Lock Loop/Delay Lock Loop

RAND: Reasonable and Non-Discriminatory

SSO: Standard-Setting Organization

CITATION ABBREVIATIONS

ALJ Op.: Administrative Law Judge's Initial Decision

CX, JX, RX: Trial Exhibits

Liability Op.: Opinion of the Commission (on liability)

Remedy Op.: Opinion of the Commission on Remedy

Tr.: Transcript

STATEMENT OF JURISDICTION

The Federal Trade Commission (“FTC” or “Commission”) had jurisdiction under 15 U.S.C. § 45(a) and brought proceedings against Rambus under 15 U.S.C. § 45(b). This Court has jurisdiction under 15 U.S.C. § 45(c). On February 9, 2007, the Commission served a Final Order on Rambus, from which Rambus filed a timely petition for review on April 4, 2007. On April 27, 2007, the Commission denied Rambus’s motion for reconsideration; on May 3, 2007, Rambus filed a timely petition for review from that order. This Court consolidated the two actions on June 27, 2007. The Commission’s Final Order and order denying reconsideration dispose of all claims between the parties.

STATEMENT OF ISSUES PRESENTED FOR REVIEW

1. Whether the Commission erred in concluding that Rambus violated Section 2 of the Sherman Act, 15 U.S.C. § 2, as incorporated into Section 5 of the Federal Trade Commission Act (“FTC Act”), 15 U.S.C. § 45, by not disclosing to rival members of a standard-setting organization (“SSO”) that it might in the future obtain patents reading on technologies the SSO was considering for incorporation into certain standards, and specifically whether the Commission erred in concluding that:

a. Rambus violated a duty under the antitrust laws to make such a disclosure where (i) the SSO had no rule requiring Rambus to disclose its patents,

pending applications, or intentions to seek patents in the future (hereinafter, collectively, “patent interests”), (ii) the Commission inferred a disclosure duty from the unwritten “expectations” of some of the SSO’s members that they would “cooperate” with one another in “good faith,” and (iii) at all relevant times, Rambus had no undisclosed claims in patents or patent applications that were material to the adoption of any standard under consideration by the SSO;

b. Rambus’s nondisclosure caused injury to competition where the Commission (i) made no finding that the nondisclosure affected the SSO’s standards (and affirmatively found that no such effect had been proven) and (ii) improperly shifted to Rambus the burden of disproving causation; and

c. Rambus lacked a procompetitive justification for not disclosing its patent interests where (i) patent applications and intentions to file applications were universally recognized as trade secrets, (ii) the Commission improperly shifted to Rambus the burden to prove that its justification was legitimate, and (iii) the Commission erroneously disregarded Rambus’s legitimate reasons for not disclosing its trade secrets.

2. Whether the Commission’s compulsory licensing remedy—directing Rambus to offer numerous patented technologies at sharply-reduced (and eventually zero) royalty rates—is unsupported by substantial evidence and

improperly extends beyond the technology markets in which the Commission found exclusionary conduct.

STATEMENT OF FACTS

On June 18, 2002, the Commission issued a complaint alleging that Rambus violated Section 5 of the FTC Act by engaging in anticompetitive conduct while it was a member of an SSO known as the JEDEC Solid State Technology Association (“JEDEC”). The Commission alleged that Rambus failed to disclose various patent interests—patents, patent applications, and intentions to seek patents—for which a license would have been required to practice computer memory standards under development while Rambus was a JEDEC member. The Commission went on to allege that, through such nondisclosures, Rambus unlawfully acquired monopoly power in four technology markets relevant to JEDEC’s standards. Although brought under Section 5, the complaint was in substance an allegation of unlawful monopolization under Section 2 of the Sherman Act.

After a 54-day trial—one of the longest in the Commission’s history—the Commission’s Chief Administrative Law Judge (“ALJ”) rejected the Commission’s claims and the arguments of its Complaint Counsel. Among other things, the ALJ concluded, on the basis of detailed factual findings, that (1) JEDEC had no rule that required Rambus to disclose its patent interests; (2) Rambus’s

nondisclosure of its patent interests served legitimate purposes; and (3) JEDEC members would have selected Rambus's technologies and paid Rambus's royalty rates even if the company had made the disclosures that the Commission alleged were required.

On appeal, the Commission swept aside the ALJ's detailed findings of fact, and ruled that Rambus's nondisclosure of its patent interests to JEDEC members deceived those companies and violated the antitrust laws. Even though many of JEDEC's members were Rambus's rivals, the Commission concluded that they had "expectations" that Rambus would disclose to them its efforts to secure patent protection for various inventions, and that there was a "causal link" between Rambus's nondisclosures and the company's market position. The Commission did not find that JEDEC would have rejected Rambus's technologies if Rambus made the disclosures the Commission concluded it should have made. Instead, it concluded that, had Rambus made such disclosures, JEDEC would have obtained a commitment from Rambus to license, on reasonable and nondiscriminatory ("RAND") terms, any patent reading on the four technologies at issue when used in two specific JEDEC standards. As a remedy, however, the Commission ordered a compulsory, and ultimately royalty-free, license that applies to *all* Rambus patents necessary to practice *any* aspect of those two standards, thus reaching beyond the markets that it found unlawfully monopolized.

A. Rambus And DRAM

Rambus was founded in 1990 by two engineering professors, Mike Farmwald and Mark Horowitz. ALJ Op. ¶58.¹ In the late 1980s, Farmwald realized that memory chips were not keeping pace with the increase in computer processing speeds. The result was a “memory bottleneck” that threatened advances in the computer industry. Liability Op. 6-7. Farmwald and Horowitz invented new computer memory interface technologies that broke the memory bottleneck. ALJ Op. ¶¶41-46. Their inventions included the four addressed in the FTC complaint: programmable read latency (of which column address strobe (“CAS”) latency is one implementation), programmable burst length, dual-edge clocking, and on-chip phase lock and delay lock loops (PLL/DLL). ALJ Op. ¶¶50-57.²

¹ The Initial Decision of the Chief Administrative Law Judge is cited herein as “ALJ Op.” The ALJ’s factual findings are cited by paragraph (“¶ __”), and legal conclusions are cited by page number (“p. __”). The Opinion of the Commission is cited as “Liability Op.,” and the Opinion of the Commission on Remedy is cited as “Remedy Op.”

² **Programmable CAS latency** allows control over the delay between a request for data from memory and the response. **Programmable burst length** (which is elsewhere called “variable burst length”) enables varying the amount of data transmitted to and from the memory in response to a request. **Dual-edge clocking** accelerates data transfer by allowing twice the amount of information to be sent between the processing unit and memory in each computer clock cycle. **PLL and DLL** circuits allow precise timing of the data transfer between computing circuits

It is hard to overstate the importance of the Farmwald/Horowitz innovations. Their inventions vastly increased the usefulness of Dynamic Random Access Memory (“DRAM”), which is now an essential part of most personal computers and other devices such as printers, digital cameras, and personal digital assistants. ALJ Op. ¶¶2-3. In 2006, Horowitz received the prestigious IEEE Solid-State Circuits Technical Field Award in recognition of his “revolutionary” innovations.³

On April 18, 1990, Farmwald and Horowitz filed Patent Application No. 07/510,898 (“’898 application”). ALJ Op. ¶168. The ’898 application disclosed in its written description the four innovations at issue, as well as many others.⁴ That application also contained 150 different claims covering so many different patentable innovations that the United States Patent and Trademark Office (“PTO”) required them to be separated in accordance with 35 U.S.C. § 121. In response, Rambus split the 150 claims between the original application and ten divisional applications filed on March 5, 1992. ALJ Op. ¶¶168-178. The first patent stemming from the ’898 application, U.S. Patent No. 5,243,703 (“’703

and memory; *on-chip* refers to the placement of such circuits on the memory chip itself. See Liability Op. 10-12.

³ <http://www.ieee.org/portal/pages/about/awards/bios/2006PedersonAwardinSolid-StateCircuits.html>.

⁴ The *written description* in a patent application explains the invention and at least one way it can be practiced. The *claims* set forth the specific elements of the invention for which the applicant seeks patent protection. 35 U.S.C. § 112.

patent”), issued on September 7, 1993. ALJ Op. ¶¶179. By the time of trial in this case, the PTO had issued more than 40 patents claiming priority to the ’898 application. ALJ Op. ¶¶175.

Because Rambus is a small company without the resources to build memory chips itself, it decided to license the Farmwald/Horowitz inventions to larger companies that manufacture computer memory products. ALJ Op. ¶¶64. Rambus focused its efforts on promoting a DRAM interface incorporating many of the inventions—Rambus DRAM (“RDRAM”)—and, by June 1992, had signed RDRAM licensing agreements with NEC, Toshiba, and Fujitsu. ALJ Op. ¶¶86-98. Because Rambus’s key asset was its intellectual property, the company was careful to protect its as-yet-unpatented inventions by entering into nondisclosure agreements with prospective licensees. ALJ Op. ¶¶160-161.

B. Rambus’s Participation In JEDEC

1. JEDEC’s Standard-Setting Activities

JEDEC sets technical standards for electronics components. Before 1998, JEDEC was an “activity” within the Electronic Industries Association (“EIA”) and abided by EIA policies. ALJ Op. ¶¶222-224; RX1179. JEDEC standards for DRAM products were developed by the JC 42.3 committee. ALJ Op. ¶¶247, 249, 251. DRAM manufacturers like Hyundai (later Hynix), IBM, Micron, Samsung, and Siemens, many of which owned or developed DRAM technologies, proposed

their technologies to the JC 42.3 committee during the early 1990s in hopes of securing competitive advantages. *See* CX2108 at 23-24 (“We [Hyundai] wanted to propose things to be adopted at the JEDEC meeting. That means that if our proposal is—is adopted, that means we are ahead of our competitors, so we actively decided to attend and join the JEDEC committee.”).

JEDEC’s standard-setting process involves several steps. After the committee members have considered proposals from various sources, the committee prepares a formal ballot (often multiple ballots) specifying the technical content of the proposed standard. ALJ Op. ¶¶260, 262, 268. If the committee votes to approve the standard, the JEDEC Board of Directors (formerly the JEDEC Council) considers it; only after Board approval does the proposal become an official JEDEC standard. ALJ Op. ¶266.

2. Intellectual Property Disclosure At JEDEC—1992

Rambus attended its first JEDEC meeting as a guest in December 1991, and joined JEDEC early in 1992. ALJ Op. ¶¶231, 272; CX601 at 1. At the time, neither JEDEC nor EIA had any rules requiring members to disclose intellectual property. JEDEC’s Manual of Organization and Procedure, JEP21-H (“21-H Manual”), instead required that every JEDEC standard include a notice that the standard was adopted “*without regard* to whether [its] adoption may involve patents[.]” CX205 at 20 (emphasis added). The manual did not impose, or even

refer to, any obligation that members disclose patents to JEDEC. Two EIA publications instructed committees not to standardize technologies covered by “known” patents, JX53 at 11; JX54 at 9, but neither required any disclosure. Voting members were requested, not required, to disclose relevant “patents” on formal standards ballots. CX252A at 2. None of these sources—not the 21-H Manual, the EIA publications, or the ballots—mentioned, much less required disclosure of, members’ pending patent *applications* or their *intentions* to file or amend applications in the future.

Because Rambus’s business depended on licensing its intellectual property, it was careful to seek legal advice about obligations it might incur by attending JEDEC meetings. In March 1992, Rambus’s outside counsel advised that it “should not go [to JEDEC] and promote a standard, and . . . should not mislead JEDEC into thinking that [it] wouldn’t enforce [its] property rights.” ALJ Op. ¶931; Tr. 3470-3471 (Crisp). Outside counsel also advised Rambus not to disclose its patent applications, which the company consistently treated as trade secrets. ALJ Op. ¶1064; Tr. 3496-3497 (Crisp). The ALJ credited the testimony of Rambus’s JEDEC representative, Richard Crisp, that he kept patent applications confidential based on this legal advice. ALJ Op. ¶1064. The ALJ also found, based on his evaluation of Rambus’s witnesses, that “Rambus believed that if it revealed its patent applications, other companies could file interference actions and

that, in other countries where the rules are first to file, someone could file a claim before Rambus did.” ALJ Op. ¶¶1064-1065 (quoting Tr. 3496 (Crisp), p. 288; CX837 at 2. The Commission disregarded the ALJ’s credibility-based determination that Rambus had legitimate reasons for maintaining the confidentiality of its patent applications and also ignored a Federal Circuit decision supporting that conclusion.⁵

Rambus was hardly the only JEDEC member to maintain the confidentiality of its patent interests. Other JEDEC members openly declined to disclose even *issued* patents. At a March 1993 meeting, Gordon Kelley, the IBM representative who was then the JC 42.3 DRAM Task Group chairman, announced that IBM would not discuss its patents in JEDEC. CX5107. The contemporaneous report of the Rambus engineer who attended the meeting described Kelley’s comments as follows:

[IBM] will not discuss patents that they have, or are in process. . . . This is not against JEDEC rules. The rules ask members to make the committee aware of any patents that may relate to standardization issues, and let everyone else know about them. IT DOES NOT REQUIRE YOU TO DO SO.

⁵ *Cf. Rambus Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1102 n.9 (Fed. Cir. 2003) (“Because JEDEC’s minutes are available to non-members and because there are no confidentiality agreements between individual members, a member’s revelations of future intentions to file an application likely would jeopardize some foreign patent rights[.]”).

Id. (capitalization in original). JEDEC's minutes confirm that Kelley said IBM would not discuss its intellectual property rights. ALJ Op. ¶¶691 (citing JX15 at 6); *see also* ALJ Op. ¶¶692-693 (similar statements by Kelley at subsequent meetings in 1993). The Commission's opinion does not address either these JEDEC minutes or Rambus's internal report of Kelley's statement.

3. Adoption Of The SDRAM Standard

In May 1991, seven months before Rambus attended its first JEDEC meeting, JEDEC began considering the DRAM standard that became known as SDRAM (synchronous DRAM). ALJ Op. ¶¶297-305; Tr. 1364 (Sussman); CX2088 at 272-275. On March 3-4, 1993 (the meeting at which IBM's Gordon Kelley explained that JEDEC rules did not require patent disclosures), the JC 42.3 committee voted to forward the SDRAM standard—which included programmable burst length and programmable CAS latency—to the JEDEC Council for approval. ALJ Op. ¶¶351-352. The Council adopted the standard on May 24, 1993. ALJ Op. ¶354.

Rambus neither cast any votes at JEDEC (except a single “no” vote against a standard it believed was technically infeasible) nor promoted the inclusion of any of its technologies in the SDRAM standard. ALJ Op. ¶330. Moreover, during this time (as Complaint Counsel stipulated), Rambus had no issued patents or undisclosed claims in pending patent applications that read on the SDRAM

standard (*i.e.*, that manufacturers and others would have had to license in order to practice the standard). ALJ Op. ¶959 (citing First Set of Stip., No. 9).⁶

4. Revised JEDEC Manual

In October 1993, after adopting the SDRAM standard, JEDEC published a revised manual (“21-I Manual”). The 21-I Manual included a new section directing the committee chairperson to “call attention to the obligation of all participants to inform the meeting of any knowledge they may have of any patents, or pending patents, that might be involved in the work they are undertaking.” CX208 at 19. This was the first time that any EIA or JEDEC publication mentioned patent applications, and even it did not mention any disclosure obligation regarding mere *intentions* to file new or amended applications.

⁶ The Commission noted that internal Rambus correspondence in 1992 reflected a “belie[f]” of some Rambus executives that some features of SDRAM were covered by Rambus’s pending applications. Liability Op. 39-40. As both the ALJ and the Federal Circuit determined, however, this belief was mistaken. ALJ Op. ¶¶939-967; *Infineon*, 318 F.3d at 1103.

The Commission also identified one preexisting Rambus patent application, No. 07/847,651 (’651) (one of the ten divisional applications of the ’898 application filed in March 1992), that it characterized as “involv[ing]” programmable CAS latency. Liability Op. 41. But the relevant ’651 claims did not read on JEDEC-compliant SDRAMs (indeed, Complaint Counsel did not so contend at trial). ALJ Op. ¶909 (citations omitted); *Infineon*, 318 F.3d at 1103-1104.

The Commission did not find to the contrary on either issue—nor could it in light of Complaint Counsel’s stipulation.

Contemporary evidence—in contrast to after-the-fact testimony given during these proceedings—shows that JEDEC members did not understand the 21-I Manual to impose an obligation to disclose even issued patents. For example, in January 1996, EIA (which governed JEDEC’s policies) submitted comments on the Commission’s proposed consent decree in *In re Dell*, 121 F.T.C. 616 (1996), which involved the alleged nondisclosure of patents by a member of another SSO. ALJ Op. ¶¶672-674. EIA told the Commission that its own patent policy merely “encourage[s] the early, *voluntary* disclosure of *patents* that relate to the standards in work.” ALJ Op. ¶674 (quoting RX669 at 3 (emphasis added)). The letter did not even allude to patent applications. In his response, the Commission Secretary recognized that, unlike the SSO involved in the *Dell* case, EIA only “encourage[d]” the “voluntary” disclosure of patents and did “not require a certification by participating companies regarding potentially conflicting patent interests.” ALJ Op. ¶676 (quoting RX740 at 1). The Secretary thus observed that the “expectations of participants in the two standard-setting processes differ[.]” ALJ Op. ¶677 (quoting RX740 at 2). The Commission’s opinion did not mention this correspondence between its Secretary and EIA.

When squarely faced at a February 2000 meeting with the issue “whether companies should make public that a patent is pending,” the JEDEC Board reinforced the limited nature of its disclosure rules by stating that “they encourage

companies to make this kind of disclosures *even though they were not required by JEDEC by laws.*” RX1570 at 13 (emphasis added). JEDEC Secretary Ken McGhee later confirmed to a JEDEC committee that the Board found that “[d]isclosure of patents . . . cannot be required of members at meetings.” ALJ Op. ¶684 (quoting RX1585 at 1).

The ALJ found that EIA’s letter and the Commission Secretary’s response demonstrated that “JEDEC’s patent policy was limited to encouraging early, voluntary disclosure” of essential patents. ALJ Op. ¶679. Similarly, the ALJ found that the JEDEC Board’s February 2000 statements confirmed that it did not believe even in 2000 that its rules required members to disclose pending patent applications (let alone patent intentions). ALJ Op. ¶¶680-685, p. 269. The Commission’s opinion did not address either of these crucial findings.

5. The October 1995 Survey Ballot

In October 1995, JEDEC issued a “survey ballot” that inquired about the technical benefits that might result from using, among other things, dual-edge clocking and on-chip PLL/DLL in a next-generation DRAM standard. CX260. Survey ballots were “straw votes” designed to solicit early input on the possible direction of future standardization efforts. JX28 at 49. They did not ask members to disclose any patents, let alone patent applications or intentions. *See* CX260.

According to the Commission, Rambus had two pending patent applications with claims “relating to” on-chip PLL/DLL and dual-edge clocking when the October 1995 survey ballot was circulated.⁷ Liability Op. 43. But the Commission did not find that either of these applications contained claims reading on implementations of those technologies proposed at JEDEC, let alone on the standard proposed and adopted years later. The ALJ expressly rejected the suggestion of Complaint Counsel’s expert, Bruce Jacob, that Rambus’s pending claims might read on any preliminary presentations, including a September 1994 presentation by NEC regarding PLLs on SDRAMs. ALJ Op. ¶¶944, 959-967. In any event, the Commission did not find that JEDEC members expected one another to disclose patent interests in response to survey ballots.

6. Rambus’s Withdrawal From JEDEC

Rambus attended its last JEDEC meeting in December 1995 and formally notified JEDEC of its withdrawal in June 1996. ALJ Op. ¶968. Rambus left JEDEC because of what its lawyers perceived to be a possible change in legal standards signaled by the Commission’s *Dell* case (although counsel correctly noted that “Rambus’s situation is not the same”). ALJ Op. ¶873 (citing CX3124 at

⁷ These applications were No. 07/847,692 (’692), a divisional filed from the ’898 application in March 1992 and abandoned in November 1996, and No. 08/222,646 (’646), filed in March 1994 as a continuation of the original ’898 application and issued in April 1996 as U.S. Patent No. 5,513,327 (’327 patent).

196-197). Rambus attached a list of its patents to its withdrawal letter and stated that “Rambus has also applied for a number of additional patents in order to protect Rambus technology.” CX887 at 1.

The Commission noted that the list omitted Rambus’s ’327 patent (*see supra* note 7), but that omission was immaterial. The Commission suggested that Rambus *believed* that the ’327 patent read on the later-issued double data rate SDRAM (“DDR SDRAM”) standard, but cited only an internal presentation from 1999, years after Rambus withdrew from JEDEC. Liability Op. 46 & n.248. Moreover, as the ALJ found, Complaint Counsel did not prove that any DDR SDRAM proposal made to JEDEC before Rambus’s departure triggered any obligation to disclose the ’327 patent, ALJ Op. ¶¶940-958, p. 275, and the Federal Circuit concluded that there was no DDR SDRAM disclosure obligation before Rambus left JEDEC. *See Rambus Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1105 (Fed. Cir. 2003). Rambus has never asserted the ’327 patent against JEDEC-compliant products, and the Commission did not find that the patent was necessary to practice any JEDEC standard.

C. Events After Rambus’s Withdrawal From JEDEC

The first presentation at JEDEC on its eventual DDR SDRAM standard did not occur until December 1996—six months *after* Rambus’s withdrawal. ALJ Op. ¶¶974-975 (citing CX375 at 1). The JC 42.3 committee did not approve the

standard until March 1998, and JEDEC did not publish the standard until August 1999. Liability Op. 47-48; ALJ Op. p. 278. The DDR SDRAM standard included the two relevant technologies that had been part of the SDRAM standard (programmable CAS latency and programmable burst length) and two others as well (dual-edge clocking and on-chip PLL/DLL). ALJ Op. ¶¶430-433.

While JEDEC was working slowly towards finalizing the DDR SDRAM standard, Rambus filed continuation applications with new claims better capturing the range of inventions disclosed in the original '898 application. In doing so, Rambus followed well-accepted patent practice; the Federal Circuit has explicitly stated that a patent applicant may amend claims in the PTO based on marketplace developments so long as the patent's original written description shows that the inventor was in possession of any later-claimed inventions when he filed the initial application. *See, e.g., Kingsdown Medical Consultants, Ltd. v. Hollister, Inc.*, 863 F.2d 867, 874 (Fed. Cir. 1988) (“nor is it in any manner improper to amend or insert claims intended to cover a competitor's product”); *PIN/NIP, Inc. v. Platte Chem. Co.*, 304 F.3d 1235, 1247 (Fed. Cir. 2002).⁸

⁸ The Commission suggested that Rambus somehow acted wrongfully in amending its patents to reflect information it acquired from “inside sources” after it left JEDEC. Liability Op. 47. But the claims were based on inventions made long before Rambus began attending JEDEC meetings, and the Commission did not find—nor could it—that Rambus acquired information about JEDEC illicitly.

Rambus's subsequent applications began maturing into issued patents in mid-1999. Beginning in the fall of 1999, Rambus offered to license these and other patented technologies to DRAM manufacturers at 0.75% for SDRAM and 3.5% for DDR SDRAM. Rambus filed its first patent infringement suit in January 2000 after a manufacturer refused to accept a license. CX1855. Rambus has never sued to enforce any patents that issued, or any patent claims for which it had applied, while it was a JEDEC member.

In June 2000, several months after Rambus began seeking compensation for unauthorized use of its inventions and five months after it filed its first infringement suit, JEDEC began to "flesh out" the technical details of its next DRAM standard, DDR2 SDRAM. Liability Op. 110-111. Even though JEDEC members unquestionably knew by then about Rambus's patents and could have avoided Rambus's technologies, they chose to use the four relevant Rambus technologies in DDR2 SDRAM. *Id.*⁹ The Commission ruled that the record does not establish any causal link between alleged anticompetitive conduct and

Both JEDEC's minutes and its published standards were publicly available. *See Infineon*, 318 F.3d at 1085.

⁹ The ALJ found that "JEDEC and its members were well aware that Rambus was seeking broad patent protection for its inventions" even before JEDEC published the SDRAM and DDR SDRAM standards. ALJ Op. pp. 305-306; *see also* ALJ Op. ¶¶97-166, 207-218, 786-901.

JEDEC's inclusion of Rambus's technologies in DDR2 SDRAM. Liability Op. 114.

D. Litigation Between Rambus And DRAM Manufacturers

After Rambus began enforcing its patents against DRAM manufacturers in 2000, the manufacturers argued, among other things, that Rambus had committed fraud and/or breached contractual obligations by failing to disclose patents and patent applications related to the SDRAM and DDR SDRAM standards while it was a member of JEDEC.

One DRAM manufacturer, Infineon, won a jury fraud verdict adverse to Rambus with respect to both SDRAM and DDR SDRAM, but courts reversed both parts of the fraud finding. The district court ruled that Rambus could not have committed fraud with respect to DDR SDRAM as a matter of law because Rambus left JEDEC before work officially began on the DDR SDRAM standard. *Rambus Inc. v. Infineon Techs. AG*, 164 F. Supp. 2d 743, 767 (E.D. Va. 2001). On appeal, the Federal Circuit upheld that ruling and overturned the fraud verdict against Rambus with respect to SDRAM as well. *Rambus Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1086 (Fed. Cir. 2003). The Federal Circuit stressed that, at most, JEDEC required its members to disclose a patent or application "when a license under its claims reasonably might be required to practice the standard," *id.* at 1100, and that any such disclosure duty was triggered, at the earliest, "when work

formally begins on a proposed standard,” *id.* at 1102. The Federal Circuit found insufficient evidence to support a conclusion that Rambus had violated any disclosure duty because “[t]he record shows that Rambus’s claimed technology did not fall within the JEDEC disclosure duty.” *Id.* at 1104. The Federal Circuit also ruled that JEDEC had not required its members to disclose any “plans or intentions” to file or amend patent applications in the future. *Id.* at 1102. The court noted that JEDEC could have adopted a broader disclosure policy but “simply did not,” and it emphasized the “staggering lack of defining details in the EIA/JEDEC patent policy.” *Id.*

E. Commission Proceedings

1. The ALJ’s Findings And Conclusions

After a trial involving 44 witnesses, more than 700 admitted exhibits, more than 12,000 transcript pages, and copious briefing, the ALJ issued a 334-page Initial Decision rejecting the complaint on several independent grounds. The ALJ’s detailed decision found that Complaint Counsel had failed to prove the factual allegations of the complaint and failed to advance an adequate legal basis for liability. ALJ Op. p. 7.

The ALJ found that JEDEC’s policies, in both “express written terms and practice,” at most encouraged the voluntary disclosure of patents by JEDEC members, ALJ Op. p. 264, and did not impose any obligation to disclose patents,

ALJ Op. ¶766, let alone patent applications or intentions to file or amend patent applications, ALJ Op. ¶¶772-774. In making this finding, the ALJ credited contemporaneous documents over after-the-fact testimony by witnesses who, he observed, would “directly benefit from the outcome of this litigation,” ALJ Op. p. 265, and whose testimony was not only internally contradictory, ALJ Op. ¶748, but also at odds with their own past behavior. *See generally* ALJ Op. ¶¶748-771, p. 270. The ALJ also concluded (consistent with the Federal Circuit) that Rambus did not have any undisclosed patents or patent applications that it should have disclosed pursuant to any JEDEC policy, ALJ Op. p. 276, ¶¶939-982, and thus there was “no basis” to find that the company violated any disclosure duty, ALJ Op. pp. 277, 279.

The ALJ also found that Rambus had “legitimate business justifications” for treating its patent applications and intentions as confidential trade secrets in order to preserve their value in the competitive marketplace. ALJ Op. p. 289, ¶¶1064-1087. These justifications “preclude[d] a finding of exclusionary conduct” as an antitrust matter even if Rambus were assumed to have violated a JEDEC disclosure rule. ALJ Op. p. 289.

Finally, the ALJ exhaustively analyzed the alternative technologies that JEDEC might have selected instead of Rambus’s and concluded that Complaint Counsel had failed to prove that any of those alternatives was viable. *See* ALJ Op.

pp. 312-319, ¶¶1135-1402. Thus, the ALJ concluded, Complaint Counsel did not establish that Rambus acquired monopoly power “as a result of” unlawful conduct. ALJ Op. p. 304. At most, the ALJ concluded, Rambus’s disclosures would have led JEDEC to request a commitment that Rambus would license its patents on RAND terms, and Rambus would have given such a commitment. ALJ Op. ¶¶1442-1451. The ALJ found that Rambus’s licensing rates for SDRAM and DDR SDRAM were already reasonable and nondiscriminatory within the meaning of JEDEC’s RAND criteria. ALJ Op. pp. 324-325. Thus, the ALJ ruled that Complaint Counsel had not proven any anticompetitive effects.

2. The Commission’s Liability Decision

On Complaint Counsel’s appeal, the Commission reversed the ALJ. It concluded, contrary to the ALJ, that Rambus engaged in unlawful monopolization by failing to disclose, in “disregard of JEDEC’s policy and practice [and] the duty to act in good faith,” “the potential that Rambus would be able to impose royalty obligations” on manufacturers who made products complying with the SDRAM and DDR SDRAM standards. Liability Op. 4. The Commission characterized Rambus’s nondisclosure of its patent interests as “deceptive” and ruled that it violated the antitrust laws because it enabled Rambus to monopolize the four relevant technology markets. *See id.* at 3.

a. The Commission did not find that any JEDEC rule required members to disclose their patent interests. But according to the Commission, Rambus's disclosure obligations turned not just on the letter of JEDEC's rules, but also on "how the rules are interpreted by its members, as evidenced by their behavior as well as by their statements of what they understand the rules to be." *Id.* at 35. The Commission found that the "cooperative" nature of activity at JEDEC gave its members an "expectation" that participants in standard-setting would act in "good faith" towards one another by, among other things, disclosing their patents and patent applications relating to technologies under consideration for incorporation into a standard. *Id.* at 66.

The Commission concluded that Rambus had engaged in "deception" by failing to tell DRAM manufacturers about its patent interests relating to SDRAM and DDR SDRAM. *Id.* at 67. The Commission did not find that Rambus had any issued or pending patents while it was a member of JEDEC that the company ever asserted against, or that actually read on, JEDEC-compliant products. Nor did the Commission identify any affirmative misstatement by Rambus that concerned intellectual property reading on the SDRAM or DDR DRAM standards. In support of its conclusion that Rambus's behavior was nonetheless deceptive, the Commission sought support from a 1983 non-antitrust Commission policy statement and case law dealing with consumer protection. *Id.* at 29.

b. The Commission did not find that, if Rambus had made additional disclosures, JEDEC would have standardized different technologies. The Commission concluded only that there was sufficient evidence to support “a *prima facie* showing of a causal link between Rambus’s conduct and its [monopoly] power,” *id.* at 74; shifted to Rambus the burden to *disprove* causation, *id.* at 77, 81; and concluded that Rambus had failed to meet that burden, *id.* at 94. The Commission also found that Rambus had failed to prove that there were legitimate justifications for its conduct. *Id.* at 71.

3. The Commission’s Remedy

After further briefing on remedy issues, the Commission ordered Rambus to license its patented technologies for use in SDRAM and DDR SDRAM at royalty rates far below its customary rates for three years, and then to license the technologies for free. Remedy Op. 22-24. The compulsory license covers patents for technologies in markets that the Commission did not find to be monopolized. *Id.* at 27.

The Commission acknowledged that Complaint Counsel had failed to prove that JEDEC would have chosen alternative technologies if Rambus had disclosed its patent interests. *Id.* at 13. The Commission thus proceeded on the premise that Rambus’s technologies would have been chosen even if Rambus had disclosed its

patent interests. The Commission assumed, however, that JEDEC would have insisted that Rambus commit to licensing its patents on RAND terms. *Id.* at 13-17.

In determining the royalty rates that Rambus would have charged under the constraint of a RAND commitment, the Commission made no finding about what JEDEC members believed a RAND commitment meant. Instead, relying on a theoretical law review article (published long after the events in question), the Commission said that RAND rates are “the amount that the industry participants would have been willing to pay to use a technology over its next best alternative.” *Id.* at 17.

The Commission did not discuss any evidence of the cost of any “next best alternative.” Instead, it extrapolated a royalty rate for DDR SDRAM from rates that Rambus charged for technologies necessary to practice its proprietary RDRAM protocol. It then halved that rate to arrive at a new SDRAM licensing rate, reasoning (incorrectly) that SDRAM involved half as many Rambus technologies as DDR SDRAM. *Id.* at 23. The new rates, 0.25% for SDRAM and 0.5% for DDR SDRAM, were a small fraction of the rates Rambus had previously negotiated. The Commission also concluded, based on a misreading of a Rambus license with Samsung, that all royalties should cease after three years. *Id.* at 24. And the Commission ordered Rambus to offer licenses at those reduced rates for *all* of its technologies necessary to practice the SDRAM and DDR SDRAM

standards, including several in markets not found to have been monopolized as a result of Rambus's supposed nondisclosures. *Id.* at 27.

STATUTES INVOLVED

Pertinent statutes are set forth in an addendum to this brief.

SUMMARY OF ARGUMENT

The Commission disregarded the ALJ's detailed findings, found that Rambus did not "cooperate" in "good faith" with its rivals at JEDEC by disclosing its trade secrets, and characterized Rambus's conduct as "deceptive." It then concluded that Rambus violated the antitrust laws. The Commission reached this conclusion without finding either that JEDEC had any rule requiring Rambus to make such disclosures or that, if Rambus had done so, JEDEC standards would have been any different.

The Commission's decision should be reversed for several independent reasons:

(1) The Commission erred in concluding that Rambus breached a duty to disclose its patent interests at JEDEC. Rambus did nothing to promote inclusion of its technologies in JEDEC standards, and the Commission neither found nor had any basis to find that JEDEC's standards or Rambus's royalty rates would have been any different if Rambus had never joined JEDEC. This case, therefore, is not

