1	FED	ERAL TRA	DE COMMISSI	ON
2	I N	DEX (P	UBLIC RECOR	D)
3	WITNESS: DIRECT	CROSS	REDIRECT	RECROSS
4	Crisp 3136			
5				
6	EXHIBITS	FOR ID	IN EVID	WITHDRAWN
7	СХ			
8	Number 154A		3135	
9	Number 171		3135	
10	Number 426		3135	
11	Number 703		3175	
12	Number 1957		3149	
13	Number 1961		3207	
14				
15	RX			
16	Number 1885		3345	
17	Number 1895		3345	
18	Number 2050		3345	
19	Number 2103-14		3345	
20				
21	JX			
22	None			
23				
24	DX			
25	None			

1		UNITED STATES	OF AMERICA		
2		FEDERAL TRADE	COMMISSION		
3					
4	In the Matter of	:)		
5	Rambus, Inc.) Docket No. 9302		
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7					
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9	Wednesday, May 28, 2003				
10	9:30 a.m.				
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12					
13	TRIAL VOLUME 17				
14	PART 1				
15	PUBLIC RECORD				
16					
17	BEFORE THE HONORABLE STEPHEN J. McGUIRE				
18	Chief Administrative Law Judge				
19	Federal Trade Commission				
20	600 Pennsylvania Avenue, N.W.				
21		Washington	n, D.C.		
22					
23					
24		Reported	by:		
25	Susanne Berg	ling, RMR and	Sally Jo Bowling, RPR		
		For The Reco	rd. Inc.		

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1 PROCEEDINGS 2 _ 3 JUDGE McGUIRE: This hearing is now in order. 4 Are there any items we need to take up this morning, 5 Counsel? 6 MR. STONE: Just a couple of little 7 housekeeping items, I think, Your Honor. First, from 8 the Krashinsky deposition, from the Krashinsky 9 testimony, we left open which exhibits we would move 10 into evidence, and I do have -- and I have shared this 11 the other day with complaint counsel and haven't heard 12 any objection -- seven exhibits we would like to move 13 They are CX-154A, CX-171, CX-426, RX-1885, in. 14 RX-1895, RX-2050 and RX-2103-14. 15 JUDGE McGUIRE: Mr. Oliver, any objection? 16 MR. OLIVER: Your Honor, we have no objection 17 to the three CX exhibits that were noted. I just don't 18 know enough about the other four exhibits and I was not 19 present in the courtroom when they were used. If I 20 could perhaps have a chance to consult with one of my 21 colleagues and report back on the other four exhibits? 22 MR. STONE: I have no objection to that, Your 23 Honor.

JUDGE McGUIRE: All right, let's go ahead then
and enter the three -- was it three -- perhaps we

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should just go ahead and restate those three so it's 1 2 clear in the record. 3 MR. STONE: Yes, I think what Mr. Oliver has no 4 objection to are CX-154A, CX-171 and CX-426. 5 MR. OLIVER: That's correct. 6 JUDGE McGUIRE: Okay, then those are entered at 7 this time. 8 (CX Exhibit Number 154A was admitted into 9 evidence.) 10 (CX Exhibit Number 171 was admitted into 11 evidence.) 12 (CX Exhibit Number 426 was admitted into 13 evidence.) 14 JUDGE McGUIRE: Then you can confer on the 15 other four -- the other three, and then you can get 16 back to me on those. 17 MR. STONE: That's fine, Your Honor. 18 Then my other housekeeping matter, yesterday, as you know I think, complaint counsel filed their 19 20 opposition to the motion for reconsideration. 21 JUDGE McGUIRE: Yes. 22 MR. STONE: We would like a chance to file a 23 short reply if we could on that. We expect it to be 24 quite short, certainly under ten pages. 25 JUDGE McGUIRE: How much time would you need?

1 MR. STONE: Our preference would be to file it 2 on Monday if it's acceptable to the Court. 3 JUDGE McGUIRE: Do you have any opposition to 4 that, Mr. Oliver? 5 MR. OLIVER: No objection, Your Honor. 6 JUDGE McGUIRE: All right, fine. We will give 7 you then until close of business on Monday. 8 MR. STONE: Thank you, Your Honor. 9 JUDGE McGUIRE: Okay, thank you. 10 Mr. Oliver, you may proceed at this time with 11 your inquiry of Mr. Crisp. 12 MR. OLIVER: Thank you, Your Honor. 13 Whereupon--14 RICHARD CRISP 15 a witness, called for examination, having previously 16 been duly sworn, was examined and testified further as follows: 17 DIRECT EXAMINATION 18 BY MR. OLIVER: 19 20 Good morning, Mr. Crisp. Q. 21 Good morning, Mr. Oliver. Α. 22 Q. How are you this morning? 23 Α. I'm doing fine, thanks. And you? Q. Fine, thanks. 24 25 Mr. Crisp, just to set the stage again, you

recall that shortly before we left off yesterday, we 1 2 looked at a couple of emails from February of 1993 3 between you and Mr. Ware concerning certain 4 technologies with respect to which you suggested that 5 Rambus pursue patent claims. Do you recall that? 6 Α. I remember a discussion regarding some emails between me and Mr. Ware. I'm not sure they were 7 8 exactly as you represented. 9 O. You do recall the emails had a list of 10 technologies identified in them? 11 Yes, sir, I do. Α. 12 Ο. And then I believe that we had gotten to the 13 point where we were beginning to discuss the next 14 regularly scheduled JEDEC meeting, which I believe was in March of 1993. 15 16 Your Honor, may I approach? 17 JUDGE McGUIRE: You may. BY MR. OLIVER: 18 19 Mr. Crisp, I've handed you a document marked as Q. 20 Do you recognize these as minutes from the JX-15. 21 JC-42.3 subcommittee meeting held on March 3rd and 4th, 22 1993? 23 Α. Yes, sir, I do. 24 Now, you were not present at this meeting, were 0. 25 you?

That's correct, I was not present. 1 Α. 2 But Rambus was represented at this meeting by 0. 3 Billy Garrett. Is that right? 4 Α. I believe that's correct, yes. 5 Ο. If I could ask you to turn to the second page 6 of JX-15, and if you look about two-thirds of the way down the page, you'll see under the list Others 7 8 Present, Billy Garrett is listed there? 9 Yes, sir, I see that. Α. 10 Q. Now, once again at this meeting, Mr. Townsend 11 presented the patent policy, right? 12 Α. I'm not sure. 13 Can you turn to page 4 of JX-15? Do you see Q. 14 item 4 about halfway down that page? 15 Yes, sir, I see it. Α. 16 And do you see a reference there that Mr. Q. 17 Townsend presented the patent policies and showed the 18 tracking files? 19 Yes, I see something to that effect. Α. 20 Now, it was at this March 1993 JC-42.3 Q. 21 subcommittee meeting that the subcommittee approved the 22 last of the ballots making up the SDRAM standard. 23 Isn't that right? 24 MR. PERRY: Your Honor, he's testified he 25 wasn't there. If he saw it in the minutes, he can

testify that he read that in the minutes. There's no 1 2 foundation. 3 MR. OLIVER: Your Honor, I'll withdraw the 4 question. 5 JUDGE McGUIRE: Okay. 6 BY MR. OLIVER: 7 Now, Mr. Crisp, JEDEC regularly circulated Q. 8 minutes from the meetings. Isn't that right? 9 I think that's correct. Α. 10 Q. And you were the designated representative of Rambus at the 42.3 subcommittee at this time. 11 Is that 12 right? 13 Yes, that's correct. Α. 14 Ο. And you recall receiving minutes as they were 15 circulated by JEDEC. Isn't that right? 16 Generally so, yes. Α. 17 And in addition to that, when Rambus Q. 18 representatives attended a meeting, they generally 19 provided trip reports or some other report of what 20 happened at JEDEC meetings. Isn't that right? 21 I think that's generally true. Α. 22 Q. So, it would be fair to say that you would have 23 received a copy of these minutes at the time they were 24 circulated by JEDEC? 25 Α. I think that's right.

Q. And you probably also would have received some
 type of report from Billy Garrett from the meeting as
 well?

A. Probably so, yes.

Q. Now, it was at this March 1993 meeting of the
42.3 subcommittee that the subcommittee approved the
last of the ballots making up the SDRAM standard.

8 Isn't that right?

9 A. I don't know.

Q. If I could ask you to turn, please, to page 14 in JX-15, and if I could direct your attention to paragraph 12, about halfway down that page. Do you see there that it reads, "Conclusion of All Synchronous DRAM Pass/Hold Ballots"?

15 A. Yes, sir, I do.

Q. And underneath that it reads, "VLSI moved to send all pass/hold ballots on to council. Seconded by II. The vote was 26 yes, 0 no. Motion passed."

19 Do you see that?

20 A. Yes, I do.

Q. Does that refresh your recollection that it was at the March 1993 meeting that the JC-42.3 subcommittee passed the last of the ballots making up the SDRAM standard?

25 A. No.

Q. You have no reason to doubt that this wasn't at 1 the meeting what happened, do vou? 2 3 No, sir, I don't. Α. Now, do you recall that in March 1993, the 4 Q. 5 JC-42.3 subcommittee issued a press release announcing 6 that they had passed the last of the ballots making up the SDRAM standard? 7 8 Α. No, sir, I don't remember that. 9 Ο. Mr. Crisp, if I could ask you to turn to page 10 99 in JX-15, it has a handwritten note at the upper right-hand corner, "Attachment Z." Under the JEDEC 11 12 caption, there's a title Press Release. 13 Do you see that? 14 Α. Yes, sir, I do. 15 And underneath that it reads, "JEDEC JC-42.3 Ο. 16 Committee Approves Synchronous DRAM Standards." 17 Do you see that? 18 Yes, sir, I do. Α. Does that refresh your recollection that 19 Ο. 20 following the March 1993 JC-42.3 subcommittee meeting, 21 the subcommittee issued a press release announcing the 22 passage of the last of the ballots making up the SDRAM 23 standard? 24 Α. No. 25 Again, you have no reason to doubt that the Q.

42.3 subcommittee, in fact, issued the press release we 1 2 just looked at, do you? 3 I have no reason to doubt it. Α. 4 Now, to the best of your knowledge, Billy Ο. 5 Garrett never said anything at this March 1993 meeting 6 with respect to Rambus IP that might relate to the 7 synchronous DRAM ballots. Is that right? 8 I really don't know, sir. Α. 9 But you have no information or no knowledge Ο. 10 that he made any such announcement, do you? I have no information at all that I -- that I 11 Α. 12 can remember. 13 Now, shortly after this, Rambus officially Q. 14 renewed its membership at JEDEC, didn't it? 15 Α. I'm not sure. 16 MR. OLIVER: May I approach? 17 JUDGE McGUIRE: Yes, you may. BY MR. OLIVER: 18 19 Mr. Crisp, I've handed you a document marked Q. 20 CX-602. You'll recall that we looked at this document 21 yesterday. 22 Α. I'm sorry, could you repeat the question, 23 please? 24 Yes. I've handed you a document marked as Ο. 25 CX-602. Do you recall that we looked at this document

1 yesterday?

2 It looks sort of familiar. Α. 3 Do you recall that this is a document that was Q. produced from JEDEC files by way of Infineon and 4 5 contains a number of pages from various points in time? 6 Α. I'm not sure that I remember that. 7 Okay. In any event, if I could direct your Ο. 8 attention, please, to page 11. Do you recognize this 9 as an invoice sent to you by JEDEC on or about January 10 4th of 1993? 11 No, sir, I don't recognize this. Α. 12 Ο. Do you see the address in the upper left-hand 13 corner? 14 Α. Yes, sir, I do. 15 And the typed name William Garrett has been Ο. crossed out, and handwritten, the name Richard Crisp 16 17 appears in its place? 18 Yes, sir, I see that. Α. 19 Do you have any reason to believe that you did Ο. 20 not receive this invoice in January 1993? 21 No, sir, I have no reason to believe that. Α. 22 Q. If I could ask you to turn to page 5 of CX-602, 23 please. 24 MR. PERRY: Your Honor, we're willing to 25 stipulate that Rambus paid its dues to JEDEC in 1993 if For The Record, Inc. Waldorf, Maryland

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1 this will move things forward.

2 JUDGE McGUIRE: All right, so noted. 3 MR. OLIVER: Your Honor, if I could clarify, 4 Mr. Perry is willing to stipulate that Rambus actually 5 paid the dues on or about April 21st of 1993? 6 MR. PERRY: Well, that's -- I think the check 7 is dated April 7th, so it depends on what you mean by 8 payment, when it's received or date they signed the 9 check, but I'm certainly willing to stipulate it was in 10 April. 11 MR. OLIVER: Okay, thank you. 12 BY MR. OLIVER: So, in other words, Mr. Crisp, Rambus was a 13 Q. 14 member of JEDEC until April of 1993 even though it had 15 not paid its dues up until that point? 16 I'm not sure, sir. Α. 17 In any event, no one objected to Rambus Q. 18 continuing to attend meetings up until April of '93, did they? 19 20 I have no information about that one way or the Α. 21 other. 22 Ο. And you certainly didn't have any interruption 23 in the materials you received from JEDEC up until April 24 1993, did you? 25 Α. I don't recall one way or the other.

Q. Now, also in April 1993 you learned that Lester 1 2 Vincent had completed the drafting of a number of the 3 claims you wanted to add. Isn't that right? 4 Α. I'm not sure about that, sir. 5 MR. OLIVER: May I approach, Your Honor? JUDGE McGUIRE: Go ahead. 6 BY MR. OLIVER: 7 8 Mr. Crisp, I've handed you a letter addressed Q. 9 to Mr. Farmwald from Mr. Vincent dated April 22nd, 10 1993. If you look in the lower left-hand corner, do 11 you see that you are copied with enclosures on this 12 letter? 13 Yes, sir, I see that. Α. 14 And do you see that the letter states, Ο. 15 "Enclosed for your review are draft preliminary 16 amendments for the above-referenced patent 17 applications"? 18 Do you see that? 19 Yes, sir, I do. Α. 20 MR. OLIVER: May I approach, Your Honor? 21 JUDGE McGUIRE: Yes. 22 BY MR. OLIVER: 23 Mr. Crisp, I've also handed you a document Q. 24 marked as CX-1457. It is a document with a caption at 25 the top In the United States Patent and Trademark

Office, about halfway down, Request to Approve Drawing 1 2 Changes, and at the right is Draft, 4/28/93. 3 Do you see that? 4 Yes, sir, I see that on the front page. Α. 5 Ο. Then if I could also ask you to turn to page 4 6 of CX-1457, please. Do you have page 4 of CX-1457 in 7 front you? 8 Α. Yes, sir, I do. 9 Q. Do you see that that bears a caption about 10 halfway down, Preliminary Amendment? 11 Α. Yes, sir, I see that. 12 Ο. If I could ask you to turn to page 8 of 13 CX-1457, please, and if I could direct your attention 14 to the top of the page, "In The Claims, Add the 15 following claims." 16 Do you see that? 17 Yes, sir, I do. Α. And then what follows from that are the various 18 Ο. 19 claims that Mr. Vincent was proposing to add. Is that 20 right? 21 MR. PERRY: Your Honor, complete lack of 22 foundation. These are questions for Mr. Vincent. He 23 hasn't established that Mr. Crisp had anything to do with the drafting of these claims. 24 25 JUDGE McGUIRE: Sustained.

BY MR. OLIVER:

2 Mr. Crisp, if I could ask you to turn, please, Ο. back to CX-1957, and if I could direct your attention 3 to the caption in CX-1957, Re:, Rambus, Inc., and under 4 5 that are listed three U.S. patent applications. 6 Do you see that? 7 Yes, sir, I do. Α. 8 And number 2, U.S. patent application serial Ο. 9 number 07/847,961, do you see that? 10 Α. Yes, sir, I do. 11 Now, if I could ask you to look back at Ο. 12 CX-1457, please, and on page 4, do you see in the upper 13 left-hand corner in the box serial number 07/847,961? 14 Do you see that? 15 Yes, sir, I do. Α. 16 Does that refresh your recollection that Q. 17 CX-1457, beginning at page 4, Preliminary Amendment, 18 was one of the documents that you received enclosed 19 with a copy of the letter which is CX-1957? 20 Α. No. 21 You have no reason to doubt that you received Ο. 22 draft 1457 at the time of April 22nd, 1993, do you? 23 Α. I'm not sure that I've seen this. Well, you have no reason to doubt that Mr. 24 Ο. 25 Vincent sent you a copy of his letter of April 22nd,

1 1993, CX-1957?

A. I see my name on it. I don't have any
recollection of actually receiving the letter or the
attachments.

5 Q. But you have no reason to doubt that you did 6 receive such a letter, do you?

7 A. Other than the fact that I don't remember8 receiving it.

9 JUDGE McGUIRE: All right, now, that's not the 10 question, Mr. Crisp. If you can answer the question, 11 answer it. If you can't, just say I can't answer it, 12 but, you know, that's three times he's asked it, and 13 you haven't answered it yet.

14 THE WITNESS: Thank you, Your Honor. Please
15 ask the question again.

16 BY MR. OLIVER:

Q. You have no reason to doubt that you received a copy of the letter marked CX-1957 on or about April 22nd, do you?

20 A. No.

Q. And you have no reason to doubt that one of the enclosures that you received with that letter was the preliminary amendment appearing at CX-1457, beginning at page 4?

25 A. No, sir, I have no reason to doubt it.

MR. OLIVER: Your Honor, complaint counsel 1 2 moves to admit CX-1957 into evidence. 3 JUDGE McGUIRE: Any objection? MR. PERRY: No objection. 4 5 JUDGE McGUIRE: So entered. 6 (CX Exhibit Number 1957 was admitted into 7 evidence.) 8 BY MR. OLIVER: 9 Now, Mr. Crisp, in May of 1993, Lester Vincent Ο. 10 sent you the presentation handout that we looked at 11 yesterday regarding industry standards. Do you recall 12 that? 13 I don't remember receiving that, no, sir. Α. 14 Do you recall that the letter that we did see Ο. 15 yesterday was dated May 4th, 1993? 16 I don't remember the date on it, but I do Α. remember it was sometime in 1993. 17 18 A few days later, also in May of 1993, you and Ο. 19 Mike Farmwald spoke to Lester Vincent about the draft 20 amendments in Rambus' patent applications, right? 21 I don't remember. Α. 22 MR. OLIVER: May I approach, Your Honor? 23 JUDGE McGUIRE: Go ahead. BY MR. OLIVER: 24 25 Q. Mr. Crisp, I've handed you a document marked as

CX-1930. Again, it consists of billing sheets or 1 2 billing records of Mr. Lester Vincent, and if I could 3 ask you to turn to page 83 of CX-1930. Again, the paper copies are difficult to read. It might be easier 4 5 if we bring it up on the screen. 6 Do you see a reference there, May 13, 1993, Lester J. Vincent, "Conference with Richard Crisp and 7 8 Mike Farmwald regarding preliminary amendment"? 9 Yes, sir, I do. Α. 10 Q. Does that refresh your recollection that on May 11 13th, 1993, you and Mr. Farmwald did speak with Mr. 12 Vincent concerning the preliminary amendments? 13 Α. No. 14 Ο. You have no recollection one way or another? 15 Α. That's correct. 16 Now, four days after that, on May 17th, Mr. Q. 17 Vincent sent the preliminary amendment to the Patent and Trademark Office, right? 18 19 Α. I'm not sure. 20 MR. OLIVER: May I approach, Your Honor? 21 JUDGE McGUIRE: Yes. 22 BY MR. OLIVER: 23 Q. Mr. Crisp, I have handed you a document marked 24 CX-1458, the first page captioned at the top In the 25 United States Patent & Trademark Office, and about

halfway down the statement Preliminary Amendment, and 1 2 if I could ask you to turn, please, to page 11. 3 You'll see there, respectfully submitted, 4 Blakely Sokoloff, signed by Thomas Li, dated May 17, 5 1993. Do you see that? 6 Α. Yes, sir, I do. Does this refresh your recollection that on May 7 Ο. 8 17, 1993, Lester Vincent's law firm submitted on behalf 9 of Rambus the preliminary amendments that you had 10 discussed? 11 Α. No. 12 Ο. Again, you have no recollection one way or 13 another? 14 Α. That's correct. 15 Mr. Crisp, if I could ask you to turn, please, Ο. 16 to page 5 of CX-1458, the top of the page reads, "Add 17 the following claims." 18 Do you see that? Yes, I do. 19 Α. 20 And then within claim 151, subheading (D), do Q. 21 you see that? 22 Α. Yes, sir, I do. 23 And if you read paragraph (D) to yourself, Q. please, do you see that there is a discussion in there 24 25 of circuitry for storing a first value corresponding to

1 a predetermined time period during which the interface 2 circuitry must wait before transmitting reply 3 information?

4 MR. PERRY: Your Honor, there has been no 5 foundation. There has been no showing that this set of 6 preliminary amendments was ever copied to Mr. Crisp, 7 and he's being asked to interpret documents he hasn't 8 seen.

9 MR. OLIVER: Your Honor, I would like to ask if 10 this refreshes his recollection concerning discussions 11 with Mr. Vincent four days earlier.

12 JUDGE McGUIRE: Overruled. I'll hear the 13 question.

14 THE WITNESS: I'm sorry, would you ask the 15 question again, please?

16 BY MR. OLIVER:

Q. Yes. I would like you to look, please, at subparagraph (D) within claim 151, and do you see within that paragraph language regarding circuitry for storing a value corresponding to a predetermined time period during which the interfacing circuitry must wait before transmitting reply information?

A. Well, I see some language that says that, but I see it saying other things as well. There's a number of limitations.

Q. Does this refresh your recollection that on May 1 2 13, 1993, you discussed with Mr. Farmwald and Mr. Vincent a draft claim to be added to Rambus' patent 3 4 application relating to programmable access time? 5 Α. No, sir, it doesn't. 6 It does not refresh your recollection one way Ο. 7 or another? 8 Α. That's correct. 9 Mr. Crisp, you knew at this time, though, that Ο. 10 Mr. Vincent was working on an amendment to the patent

11 application, the purpose of which was to add claims 12 that specifically would cover control register and 13 programmable CAS latency. Isn't that right?

A. I'm not sure that I knew that he was doing that. I know I had requested to him that he should look into that, whether we could -- whether or not we had invented such a concept, and if so, if he could write some claims on it if we didn't have them already.

19 MR. OLIVER: May I approach, Your Honor?

20 JUDGE McGUIRE: Yes.

21 BY MR. OLIVER:

Q. Mr. Crisp, I've handed you CX-1959. This is an
email from Fred Ware to John Dillon, Allen Roberts,
Rick Barth, yourself, Mike Farmwald, dated June 18,
1993.

Do you see that? 1 2 Yes, sir, I do. Α. 3 And if I could direct your attention to the Q. first paragraph, it reads, "I spoke with Lester Vincent 4 5 and Tom Li, the other one, on the phone yesterday. The 6 current status of the additional claims that we want to file on the original (P001) patent follows." 7 8 Do you see that? 9 Yes, sir, I do. Α. 10 Q. And then the first item is, "Writable 11 configuration register permitting programmable CAS 12 latency." 13 Do you see that? 14 Α. Yes, I do. 15 And this, again, is the technology that you Q. 16 discussed with vice president Roberts in April and May 17 of 1992. Isn't that right? I'm not sure of the dates. I think I do 18 Α. 19 remember having a discussion with Mr. Roberts about 20 that, that topic. 21 Q. Do you recall that Lester Vincent's notes of 22 his meeting with vice president Roberts in early May 23 1992 stated that you had claims that you wanted to add in that area? Do you recall that? 24 25 Α. I'm not sure about those dates. I believe that

1 we did have a discussion about that.

2 0. You also recall that you actually spoke 3 directly with Mr. Lester Vincent in September of 1992 4 concerning the same technology, right? 5 Α. I'm sorry, I'm having a hard time remembering 6 that. 7 Do you recall yesterday we looked at Lester Ο. 8 Vincent's handwritten notes from a meeting that you had 9 with him on September 25th, 1992? 10 Α. I remember we looked at a number of Mr. Vincent's handwritten notes. I don't remember the 11 12 dates and which topics were in particular notes. 13 In any event, you do recall discussing this Q. 14 topic with Mr. Vincent, right? 15 I do remember talking about -- about that, yes. Α. 16 I just don't remember which date it was. 17 And you also recall in your email exchange with Q. 18 Fred Ware in February of 1993 that programmable latency 19 was again one of the technologies that was identified? 20 I think I remember an email to Mr. Ware where Α. 21 he had asked me about some claims, and I think that was 22 one of the ones he had asked me about. 23 Q. So, here in June 1993, Fred Ware is now writing a follow-up saying writable configuration register 24 25 permitting programmable CAS latency, this claim has

been written up and filed. 1 2 Do you see that? 3 Yes, sir, I do. Α. 4 And do you see the next sentence reads, "This Ο. 5 is directed against SDRAMs"? 6 Do you see that? 7 Yes, I do. Α. 8 Now, you received this in June of 1993, right? Ο. 9 I believe I did. Α. 10 Q. And you agreed with that statement, didn't you? 11 Agreed with which statement? Α. 12 Q. The statement I've just read, "Writable 13 configuration register permitting programmable CAS 14 latency. This claim has been written up and filed. This is directed against SDRAMs." 15 16 You asked if I agreed with that? Α. 17 Q. If you agreed with that statement at the time of this email. 18 19 I don't know whether I agreed with it or not at Α. 20 the time. 21 MR. OLIVER: May I approach, Your Honor? 22 JUDGE McGUIRE: Yes. 23 BY MR. OLIVER: Mr. Crisp, I've handed you a document marked as 24 0. 25 CX-703. This is an email from you to Fred Ware also

1 dated June 18, 1993.

2 Do you see that?

3 A. Yes, sir, I do.

Q. And the first sentence reads, "First of all this all sounds really good and matches what I have requested and what I believe has happened."

7 Do you see that?

8 A. Yes, I do.

9 Q. So, as of June 18, 1993, you agreed with what 10 Fred Ware set forth in his email. Isn't that right?

11 A. This -- I have no reason to doubt that.

12 MR. OLIVER: Your Honor, complaint counsel

13 moves to admit CX-703 into evidence.

14 MR. PERRY: No objection.

15 JUDGE McGUIRE: Entered.

16 (CX Exhibit Number 703 was admitted into

17 evidence.)

18 BY MR. OLIVER:

19 Q. Now, Mr. Crisp, you attended the next meeting 20 of the JC-42.3 subcommittee on May 19th and 20th, 1993, 21 right?

A. I'm not sure, sir.

23 MR. OLIVER: May I approach, Your Honor?

24 JUDGE McGUIRE: Yes.

BY MR. OLIVER:

Q. Mr. Crisp, I've handed you a document marked JX-16, the minutes of the JC-42.3 subcommittee meeting of May 19 and 20, 1993. If I could direct your attention to the first page, you'll see your name appearing about three-quarters of the way down the page.

A. Yes, sir, I do see that.

Q. That indicates that you attended this 42.3
9 subcommittee meeting on May 19th and 20th of 1993?

10 A. Yes, sir, it does.

7

Q. Now, again, I'd just like to pause for a moment to place this in perspective. Do you recall a few moments ago we looked at Lester Vincent's billing records indicating that you and Mr. Farmwald had a conversation with Mr. Vincent concerning the preliminary application on May 13, 1993?

MR. PERRY: Your Honor, there's no jury here. I think that there's no need for this summary, and we're just going to struggle through it is my guess, because he is going to summarize it in a way that might not exactly capture the testimony, and I object to that.

23 JUDGE McGUIRE: Mr. Oliver?

24 MR. OLIVER: It is only two questions. I'm 25 just trying to set the stage.

1

JUDGE McGUIRE: Overruled.

2 THE WITNESS: Please ask the question again, 3 sir.

4

BY MR. OLIVER:

Q. Yes. Do you recall that we looked at Lester
Vincent's billing sheets indicating that you and Mr.
Farmwald had a conversation with Mr. Vincent concerning
the preliminary amendment on May 13, 1993?

9 A. I'm sorry, I don't remember the date, but I do 10 remember we saw that in the billing records.

Q. And then we saw a preliminary amendment that Mr. Thomas Li had signed on behalf of Blakely Sokoloff, filed with the Patent and Trademark Office on May 17, 14 1993?

A. I think that's right. Again, I'm not clear onthe date, but...

Q. And then two days later, May 19, 1993, is when you attended the JC-42.3 subcommittee meeting. Is that right?

20 A. Yes, sir, that's right.

21 Q. Now, at the May 1993 JC-42.3 subcommittee 22 meeting, Mr. Gordon Kelley gave a report on the status 23 of the packet of 14 SDRAM ballots that had been sent to 24 the council, right?

25 A. I don't remember.

Q. If I could ask you to turn, please, to page 5 1 2 of JX-16, and if I could direct your attention specifically to paragraph 8.1 appearing about halfway 3 4 down that page. Now, you see there, 8.1, Sync DRAM 5 Ballots, it reads, "Mr. Kelley noted that the 14 Sync 6 DRAM ballots had gone to Council. There was only one no vote from ATT on JCB-93-15. Mr. Kelley showed his 7 8 response to ATT's comment. (See Attachment H)." 9 Does that refresh your recollection that Mr. 10 Kelley gave a summary of the current status of the SDRAM ballots before the council? 11 12 Α. No, sir. 13 If I could point your attention to the next Q. 14 sentence, "During the meeting, Mr. Kelley distributed 15 copies of all the SDRAM Council ballots to allow 16 companies to review them." 17 Do you see that? 18 Yes, sir, I do. Α. 19 Do you have any recollection of Mr. Kelley Q. 20 actually distributing copies of the council ballots at 21 this meeting? 22 Α. No, sir, I don't. 23 Now, at this May 1993 meeting, you did not make Q. 24 any disclosure of any Rambus patent or patent 25 application that might relate to these SDRAM council

1 ballots, did you?

2 A. I think that's correct, yes.

Q. Now, in May and June of 1993, there were also other people at Rambus who were attempting to add claims specifically directed at SDRAMs. Isn't that right?

7 A. Which dates, sir?

8 Q. May and June of 1993.

9 A. I think the answer is yes. Would you ask the 10 question again? I want to make sure I gave you the 11 right answer.

Q. Sure. In May and June of 1993, there were also other individuals at Rambus who were working to help add claims to Rambus' existing patent applications that were directed at SDRAMs. Isn't that right?

A. I think there were people at Rambus that were working with the lawyers to better write claims or to help suggest claims that they felt should be a part of our applications.

20 Q. And some of those claims were specifically 21 directed against SDRAMs. Isn't that right?

A. I believe that's correct. I think that's whatthe documents show.

Q. So, for example, we just looked at Fred Ware's email of June 18, 1993, the first item of which stated

that the claim relating to programmable CAS latency is 1 2 directed against SDRAMs. Do you recall that? 3 Yes, that's what I was thinking of when I was Α. 4 answering your question. 5 Ο. Now, at that time, Fred Ware and others were 6 also working on claims relating to DRAM with PLL clock 7 generation. Isn't that right? 8 Α. I'm not real sure. 9 If I could ask you to locate CX-1959 in front Ο. 10 of you, that's the Fred Ware email we looked at a few 11 minutes ago. Do you have CX-1959 in front of you, sir? 12 Α. Yes, sir, I do. 13 If I could direct your attention to item number Q. 14 3, DRAM with PLL clock generation. Do you see that? 15 Yes, sir, I do see that. Α. 16 Q. And if I could read that paragraph to you, 17 "This claim is partially written up. They need to 18 finish it up and file it. They are not waiting for 19 anything from us. This is directed against future 20 SDRAMs and RamLink." 21 Do you see that? 22 Α. Yes, sir, I do see that. 23 Does this refresh your recollection that in Q. 24 June of 1993, Fred Ware and others were working on 25 claims relating to PLL clock generation that were

directed against future SDRAMs and RamLink? 1 2 Well, you say "working on." I'm not sure I'd Α. go that far, but it certainly does refresh my 3 recollection there were some activities in that area. 4 5 I'm not sure quite what role Mr. Ware was -- was 6 playing in this in the grand scheme of things. 7 Let me rephrase the question. Ο. 8 Does that refresh your recollection that as of 9 June 1993, Rambus was pursuing claims to be added to 10 its patent applications relating to PLL clock 11 generation that were directed against future SDRAMs and 12 RamLink? 13 I think I'd agree with that, yes. Α. 14 Ο. Now, in June of 1993, Rambus was also pursuing 15 patent claims to be added to its existing amendments 16 concerning multiple open rows. Isn't that right? 17 Α. That's what's indicated on this page. 18 And that's what you understood at that time. Ο. 19 Isn't that right? 20 I think that's right. Α. 21 And the claims that Rambus was pursuing Ο. 22 concerning multiple open rows was also directed against 23 SDRAMs. Isn't that right? 24 Α. I think that's correct. That's what it says on 25 the page here.

Q. Now, Rambus was also pursuing claims with respect to external supplied reference voltage. Isn't that right?

A. I think that was something that was desired,
but I'm not sure exactly where that stood in the
process of executing that.

Q. Would it be fair to say that Rambus was exploring the possibility of adding claims to cover external supplied reference voltage?

10 A. Well, I think I would prefer to say that Rambus 11 had given some consideration to requesting that our 12 patent lawyer look to see if such claims existed or if 13 they didn't if they could have been created and added 14 to our existing applications.

15 Q. Well, Rambus certainly had such claims in mind, 16 didn't it?

17 A. I think that's right.

Q. And in fact, Rambus had such claims in mind to be directed against so-called CTT technology. Isn't that right?

21 A. I think that's true, in part.

Q. And that's something that had been discussed at JEDEC, isn't it?

A. I'm sorry, what was discussed at JEDEC?Q. Using external supplied reference voltage

1 against CTT technology.

A. It's possible that it was. I don't reallyremember.

4 MR. OLIVER: Your Honor, may I approach the 5 table?

6 JUDGE McGUIRE: Yes.

7 BY MR. OLIVER:

8 Q. You do recall yesterday that one of the 9 technologies we had noted being discussed at JEDEC was 10 external reference voltage?

11 A. I think I remember that, yes. I'm not sure 12 exactly what the context was, but I think we did 13 establish that yesterday.

Q. Now, Rambus was also pursuing claims relating
to low voltage swing signal. Isn't that right?
A. I believe our patent attorneys were looking

17 into that.

18 Q. Well, in fact, they went beyond looking into 19 it; they had actually filed a patent amendment, 20 correct?

A. That may be true. I'm not sure that Icompletely remember.

Q. If I could ask you to locate CX-703 in front of you, this is the email that you wrote dated June 18, 1993.

Do you have CX-703 in front of you? 1 2 Yes, sir, I do. Α. 3 After the first paragraph we looked at a moment Q. 4 ago, is that a piece of embedded text in here? Do you 5 see that? 6 Α. Yes, I do. 7 And do you see that is item number 6 from Fred Ο. 8 Ware's email concerning low voltage swing signal 9 levels? 10 Α. Yes, I do. 11 And then under that you have added two more Ο. 12 lines of your own text, right? 13 Α. Yes, that's correct. 14 Ο. And that reads, "This has already been done. 15 It is the one you and Allen and I talked about 16 vesterday." 17 Do you see that? Yes, I do. 18 Α. 19 Now, does that refresh your recollection that Q. 20 claims concerning low voltage swing signal had already 21 been filed? 22 Α. Yes, it does refresh my recollection. 23 Now, on June 28, 1993, Lester Vincent filed Q. 24 with the Patent and Trademark Office an amendment to 25 the '692 application. Isn't that right?

1 A. I'm not sure, sir.

2 MR. OLIVER: May I approach, Your Honor? 3 JUDGE McGUIRE: Yes. 4 BY MR. OLIVER: 5 Mr. Crisp, I've handed you a document marked as Q. 6 CX-1459. It bears a caption at the top In the United 7 States Patent and Trademark Office, about halfway down, 8 a statement Preliminary Amendment, and do you see in 9 the box in the upper left-hand corner serial number 10 07/847,692, and the stamp on the right-hand side has a written date of June 28, 1993? 11 12 Do you see that? 13 Yes, sir, I see that. Α. 14 MR. OLIVER: Your Honor, may I approach? 15 JUDGE McGUIRE: Yes. 16 BY MR. OLIVER: 17 Mr. Crisp, I've also handed you a document Q. marked CX-1961. This is a letter from Lester Vincent 18 to Fred Ware dated June 30, 1993, and if you look in 19 20 the lower left-hand portion, you'll see a cc with 21 enclosures, and you're the second person listed there. 22 Do you see that? 23 Yes, sir, I do see that. Α. 24 And if you look in the caption at the top, 0. 25 you'll see that the reference there -- the first

reference there is U.S. patent application, serial 1 2 number 07/847,692. 3 Do you see that? 4 Yes, I do see that. Α. Q. 5 Does this letter, CX-961, refresh your 6 recollection that Mr. Vincent, in fact, sent you a copy 7 of the preliminary amendment to the '692 application 8 when it was filed? 9 No, sir, it doesn't. Α. 10 Q. Now, the following month, in July 1993, you and 11 Fred Ware met again with Lester Vincent. Isn't that 12 right? I don't remember that. 13 Α. MR. OLIVER: May I approach, Your Honor? 14 15 JUDGE McGUIRE: Yes. 16 BY MR. OLIVER: 17 Mr. Crisp, I've handed you a document marked as Q. CX-1963. These are a set of Lester Vincent's 18 19 handwritten notes. The date in the upper right-hand 20 corner, July 9, 1993, and the top is Conf, for 21 conference, with Fred Ware and Richard Crisp. 22 If I could direct your attention to page 3, 23 please, at the top of that page, it reads, "POO1, preliminary amendment, DRAM using double terminals." 24 25 Do you see that?

I think it says something a little different 1 Α. 2 than that, sir. 3 Well, do you see the first line does say, Q. "P001, prelim," for preliminary, "amendment"? 4 5 Do you see that? 6 "Prelim amendment," yes, I see that. Α. 7 Okay. If I could then direct your attention to Ο. 8 the bottom three lines on that page, there is an arrow, 9 "We might need to add combination of low voltage swing 10 signaling." 11 Was there a question? Α. 12 Ο. Do you see that? 13 Oh, yes, I do see that. Α. 14 Ο. We'll focus on a couple more pages of the 15 document, and then I will ask you a couple of follow-up 16 questions. 17 If I could ask you to turn, please, to page 4, about halfway down the page, you will see a reference 18 19 to number 5, "Externally supplied reference voltage." 20 Do you see that? 21 On page 4, item number 5? Α. That's correct. 22 Q. 23 Α. I -- oh, okay. Yes, I see that. 24 Okay. And then underneath that, number 6, Ο. 25 "Already filed."

1

Do you see that?

2 A. Yes, I do.

Q. Do these notes refresh your recollection that on July 9, 1993, you and Fred Ware had a conference with Lester Vincent concerning Rambus' preliminary amendment, for which you discussed among other topics low voltage swing signaling and external supplied reference voltage?

9 A. No, sir, it doesn't.

Q. If I could ask you to look at page 4 of Lester Vincent's notes from July 9, 1993, number 5, external supplied reference voltage, and then if you could please compare that to CX-1959, which was the Fred Ware email.

15 A. I'm sorry, compare what to what?

16 Q. Page 4 of Lester Vincent's notes --

17 A. Yes.

18 Q. -- which state, "Externally supplied reference 19 voltage."

20 A. Right.

Q. Compare that to number 5 in CX-1959, Fred Ware's email. You'll see that item 5 in Fred Ware's email is, "DRAM with external supplied reference voltage"?

25 A. Yes, for input receivers.

Q. And then if I could ask you to look again at 1 2 Lester Vincent's handwritten notes, page 4, number 6, 3 "Already filed." 4 Do you see that? 5 Yes, I see that under number 5. Α. 6 And then if you could look back again at Fred Ο. Ware's email, CX-1959, number 6, do you see that's the 7 8 low voltage swing signal reference? 9 Yes, I see that. Α. 10 Q. And do you recall that's the one that you wrote 11 back to Fred Ware informing him that it had already 12 been filed? 13 Α. I think that's right. 14 Ο. Does that refresh your recollection that at 15 this July 9, 1993 meeting, you and Fred Ware sat down 16 with Lester Vincent and discussed the contents of Fred Ware's June 18, '83 -- 1993 email, CX-1959? 17 18 No, sir, it doesn't. I still don't remember Α. it. 19 20 MR. OLIVER: Could I have just a moment, Your 21 Honor? 22 JUDGE McGUIRE: Go ahead. 23 (Counsel conferring.) BY MR. OLIVER: 24 25 Q. Now, Mr. Crisp, in September 1993, you attended

1 the next regularly scheduled JC-42.3 subcommittee 2 meeting, right?

3 I'm not sure of the date for the next meeting. Α. 4 MR. OLIVER: May I approach, Your Honor? 5 JUDGE McGUIRE: Yes. 6 BY MR. OLIVER: 7 Mr. Crisp, I've handed you a document marked as Q. 8 CX-711. Do you recall this is a document that we 9 discussed yesterday? 10 Α. Yes, I do. And this is the collection of various emails 11 Ο. 12 sent to and from you between sometime in 1993 and sometime in 1996 or later. Is that right? 13 14 A. I think it includes those dates, possibly some 15 other dates as well. 16 Q. Now, if I could direct your attention to the 17 first page of this document, do you see this is an 18 email that you sent to CEO Geoff Tate, vice president

19 David Mooring and vice president Allen Roberts on

20 October 5, 1993?

21 A. Yes, sir, I see that.

Q. And the subject is JEDEC meeting notes?A. Yes, that's correct.

Q. And the meeting was in Boston on September25 22nd. Is that right?

1 A. That's right.

2 Does that refresh your recollection that the Ο. next JEDEC meeting you attended was in September 1993? 3 4 Α. Yes, it does. 5 Q. Now, this is the meeting that we discussed 6 yesterday at which Texas Instruments was -- let me 7 strike that question. 8 This is the meeting we discussed yesterday at 9 which a dispute between Micron and Texas Instruments 10 related to patent disclosure arose? 11 Α. I know it came up in the meeting. I don't know 12 if that was the first time it had arisen. 13 Now, at this September 1993 meeting, you also Q. 14 disclosed Rambus' '703 patent. Isn't that right? 15 Α. Yes, that's correct. 16 Q. And you disclosed that because it was the first 17 Rambus patent that had issued, and it had issued 18 shortly before? 19 I think that was part of the reason. Α. 20 Now, the '703 patent was not related to JEDEC's Q. 21 SDRAM work, was it? 22 Α. I'm not sure. It's possible that it wasn't, 23 but I really don't remember. 24 Well, you've testified previously that it was 0. 25 not related to JEDEC's work. Isn't that right?

A. That may be correct. I just simply don't remember.

Q. If you had testified previously that it was not
related, you have no information today that would
contradict that, do you?
A. I'm sorry, could you ask the question again?

Q. Yes. If you had testified previously that the
'703 patent was not related to JEDEC's work, you have
no information today to contradict that, do you?

10 A. I think that's correct.

11 Q. Now, when you disclosed Rambus' '703 patent, 12 you didn't tell JEDEC about any of Rambus' pending 13 patent applications, did you?

A. I don't -- I don't believe I explicitly said
anything about any pending applications.

16 Q. You didn't say anything about any of Rambus' 17 pending applications, did you?

18 A. That's correct, I didn't say anything about19 that.

20 Q. Now, following the September 1993 meeting, you 21 discussed with vice president David Mooring the fact 22 that you had discussed -- that you had disclosed the 23 '703 patent. Isn't that right?

A. Yes, that's correct.

25 Q. And Mr. Mooring was your boss at Rambus at the

1 time?

2

A. Yes, that's correct.

3 And in that conversation, he led you to believe Q. 4 that he was annoyed with you for having made that 5 disclosure. Isn't that right? 6 Yes, I think that's true, in part. Α. 7 In fact, he chastised you, didn't he? Ο. 8 I think those are the words that I used. Α. 9 Now, following that time, you made no specific 0. 10 disclosures of any SDRAM-related patents at any time until Rambus withdrew from JEDEC. Isn't that right? 11 12 MR. PERRY: Your Honor, that assumes facts not 13 in evidence, that there were any SDRAM-related patents 14 to disclose. 15 JUDGE McGUIRE: Overruled. THE WITNESS: Would you please ask the question 16 17 again? BY MR. OLIVER: 18 Yes. Following your disclosure of the '703 19 Q. 20 patent, you made no specific disclosures of any 21 SDRAM-related patents at any time at JEDEC until the 22 time that Rambus withdrew. Isn't that right? 23 Α. Well, I'll agree with the first part. I'm not sure that at the time of the withdrawal there were any 24 25 SDRAM-related patents to disclose. I know there was a

list of patents, but I'm not sure what all they
 covered.

Q. Well, let me rephrase the question to becertain the record is clear.

5 Between the time that you disclosed the '703 6 patent and the list that you've referred to attached to 7 your withdrawal letter, you did not disclose any Rambus 8 patents at JEDEC, did you?

9 A. That's correct.

Q. Between the time that you disclosed the '703 patent and the time that you submitted the withdrawal letter to JEDEC, you did not disclose any Rambus patent applications at JEDEC, did you?

14 A. That's correct.

Q. In the interest of time, let's skip ahead a little bit in the story and move up into 1994, if we could.

First of all, again, at the beginning of 1994, Rambus renewed its membership in JEDEC. Is that right? A. I think that's right. I don't really remember, but we must have.

22 Q. I'd like to ask you to find CX-602 in front of 23 you.

24 MR. PERRY: Your Honor, again, Rambus will 25 stipulate that it paid its dues for that year.

1 MR. OLIVER: Your Honor, this will only take a 2 moment, and I do have an additional point to make on 3 this document. 4 JUDGE McGUIRE: All right, go ahead. Thank 5 you, Mr. Perry. 6 MR. OLIVER: Actually, Your Honor, I believe we 7 have an extra copy if --8 JUDGE McGUIRE: Go ahead. 9 THE WITNESS: I found it, sir. 10 BY MR. OLIVER: 11 Q. Thank you. 12 If I could ask you to turn to page 7 in CX-602, 13 do you recognize that as the invoice that Rambus 14 received? 15 Α. I don't really recognize this, no, sir. 16 Okay. Well, do you recognize the list of Q. 17 subcommittees underneath the membership statement in 18 the middle of the invoice? 19 Well, I recognize some of them. Α. 20 But you recognize that this -- at this point, Q. 21 Rambus -- do you recognize that at this point Rambus 22 had joined additional committees and subcommittees within JEDEC? 23 24 I think that's what this is showing me. Α. 25 Q. And in fact, the amount originally listed,

1 \$4,000, has now been increased to \$5,000.

2 Do you see that?

3 Yes, I see that the numbers were changed. Α. 4 So, it would be fair to say that this reflects Ο. 5 an increased participation by Rambus within JEDEC? 6 Α. Well, it depends on what you mean by 7 "participation." It looks like we joined another 8 committee. 9 Q. I'd like to move ahead now to May of 1994. I'd

10 like to show you a letter from Rambus vice president 11 Allen Roberts to Mr. Vincent and then ask some 12 questions about that.

13 May I approach, Your Honor?

14 JUDGE McGUIRE: Yes.

15 BY MR. OLIVER:

Q. Mr. Crisp, I've handed you a document marked as CX-734. This is a two-page letter on Rambus letterhead dated May 5, 1994, addressed to Lester Vincent, signed by Allen Roberts.

If I could direct your attention to the first paragraph, Mr. Roberts said, "We have reviewed the teachings of the original Rambus patent application and feel we can enhance our claim coverage. We would like you to consider the following areas as inclusion into the current divisional patents P009D, P010D, P011D,

P012D, P013D, P014D, P015DC or potentially as new 1 2 divisionals. It is possible that some of these enhancements are already in the existing applications, 3 4 but we would like to re-assess the strength of those 5 claims." (Sic) 6 Do you see that? 7 I think it largely said what you did, but I Α. 8 think that there was one of the numbers you got wrong. 9 Do you recall which number I got wrong? Ο. 10 Α. The first one. P009DC? 11 Ο. 12 Α. That's correct. 13 Okay. Then following that there is a list of Q. 14 enhancements that he wants Mr. Vincent to consider? 15 Α. Sir, this was written by Mr. Roberts. 16 MR. PERRY: I think it's a belated objection by 17 me, Your Honor, that there's no foundation that he ever 18 saw this or was involved in any of this work at this 19 time given his job at the company. 20 JUDGE McGUIRE: Sustained on that one, Mr. 21 Oliver. 22 MR. OLIVER: Thank you, Your Honor. 23 BY MR. OLIVER: 24 Mr. Crisp, if I could direct your attention to Ο. 25 item 2.0 on the list, it reads, "Multiple and For The Record, Inc.

Waldorf, Maryland (301) 870-8025

independently controlled and addressed internal DRAM 1 2 memory regions (banks)." 3 Do you see that? 4 Yes, sir, I do. Α. 5 Q. Do you recall yesterday that we discussed two 6 banks and saw that that appeared in various JEDEC 7 minutes? 8 Α. I have a recollection similar to that, yes. 9 And do you recall that we discussed your Ο. 10 conversations with Mr. Lester Vincent concerning 11 multiple address rows? Do you recall that? 12 Α. I think it was a little different than that.

13 Q. Do you recall a discussion of technology along 14 those lines?

15 A. Something similar, yes.

Q. Now, do you recognize the statement here of multiple and independently controlled regions or banks as similar to the technology that you discussed with Mr. Vincent in September 1992?

20 MR. PERRY: Your Honor, still no foundation 21 laid for questioning on this document.

22 MR. OLIVER: Your Honor --

23 JUDGE McGUIRE: Yes, go ahead, Mr. Oliver.

24 MR. OLIVER: -- understand this is going to set 25 up the next question which I want to ask him about any

1 possible conversations with Mr. Roberts.

2 Well, but right now he's asking --MR. PERRY: 3 JUDGE McGUIRE: We are still talking about the 4 foundation on this one, so that's sustained. Why don't 5 you restate the question. 6 BY MR. OLIVER: 7 Mr. Crisp, did you have any conversations with Ο. 8 Mr. Roberts in or about May of 1994 concerning claims 9 to be added relating to multiple internal DRAM memory 10 regions or banks? I don't remember. 11 Α. So, as you sit here today, you don't know one 12 Ο. 13 way or another? 14 Α. That's correct, sir. 15 If I could direct your attention, please, to Ο. 16 item number 6, it reads, "Use control registers to contain values which control RAS or CAS access timing." 17 18 Do you see that? 19 I see something similar to that. Α. 20 Do you recall that we discussed yesterday Q. 21 conversations you had with Mr. Vincent relating to 22 registers to control access timing? I remember we talked about that yesterday. 23 Α. 24 And do you recall we saw an email from Fred Ο. 25 Ware earlier this morning speaking about programmable

1 CAS latency? Do you recall that?

2 Yes, I think it spoke to that in part. Α. Do you recall any conversations that you had 3 Q. with vice president Roberts in about May of 1994 4 5 relating to additional claims relating to control 6 registers to control CAS access timing? No, sir, I don't remember. 7 Α. 8 If I could direct your attention back to the Ο. 9 first page, please, item number 1. It reads, "Use of 10 both edges of the clock for transmission of address, 11 commands, or data (or any combination) on DRAM device 12 to increase effective bandwidth/pin." Do you see that? 13 14 Α. Yes, sir, I do. 15 Now, do you recall any conversation with vice Q. 16 president Roberts in about May of 1994 concerning 17 claims to be added relating to use of both edges of the 18 clock? 19 No, sir, I don't recall. Α. 20 Now, Mr. Crisp, the so-called auto-precharge Q. 21 technology was also a technology that you've seen discussed at JEDEC. Do you recall that discussion from 22 23 vesterday? 24 A. No, sir, I'm sorry, I don't remember that 25 discussion.

MR. OLIVER: Your Honor, if you could give me 1 2 just a moment, please. 3 JUDGE McGUIRE: Go ahead. 4 (Counsel conferring.) 5 MR. OLIVER: Could we have just a moment, Your 6 Honor? 7 JUDGE McGUIRE: Yes, all right. 8 MR. OLIVER: Actually, Your Honor, would this be an appropriate place for a mid-morning break? 9 10 JUDGE McGUIRE: I guess it would be. So, off 11 the record, we will take a ten-minute break. 12 MR. OLIVER: Thank you, Your Honor. 13 (A brief recess was taken.) JUDGE McGUIRE: Let's go on the record. 14 15 Mr. Oliver, you may proceed. 16 MR. OLIVER: May I approach, Your Honor? JUDGE McGUIRE: Yes. 17 BY MR. OLIVER: 18 19 Mr. Crisp, I've handed you a document marked Q. 20 CX-1708. Do you recognize this as an email that you 21 wrote following the April 1992 JEDEC task group 22 meeting? 23 Α. Yes, sir, I remember this. 24 If I could direct your attention, please, to 0. 25 page 5, CX-1708, and to the second paragraph on that For The Record, Inc.

There's a sentence in the middle of that 1 page. 2 paragraph reading, "The precharge functionality is 3 getting complicated." 4 Do you see that? 5 Α. Yes, sir, I do. 6 MR. OLIVER: May I approach, Your Honor? 7 JUDGE McGUIRE: Yes. 8 BY MR. OLIVER: 9 Mr. Crisp, I've handed you a document marked Ο. 10 CX-680, again a document that we discussed yesterday. 11 Do you recognize this as Mr. Garrett's trip report from 12 the September 1992 meeting? 13 Α. Yes, sir, I do. 14 Ο. And you also attended the September 1992 JEDEC 15 meeting along with Mr. Garrett. Is that right? 16 That's correct, sir. Α. 17 If I could ask you to turn to page 2, please, Q. of CX-680. If I could direct your attention to a 18 19 paragraph appearing about halfway down beginning, 20 "Precharge." 21 Do you see that? 22 Α. Yes, sir, I do. 23 And the first couple of sentences read, Q. 24 "Precharge and Autoprecharge were not resolved. Lots 25 of disagreement on the effects on banks, and how

1 autoprecharge will be done."

2 Do you see that?

3 A. Yes, sir, I do see that.

Now, does CX-1708 and CX-680 refresh your 4 Ο. 5 recollection that auto-precharge is a technology that 6 was discussed at JEDEC meetings during 1992? 7 Yes, sir, it does. Α. 8 MR. OLIVER: May I approach, Your Honor? 9 JUDGE McGUIRE: Yes. 10 BY MR. OLIVER: Mr. Crisp, I've handed you a document marked 11 Ο. 12 CX-738. This is an email from John Dillon to the 13 executive group, Rick Barth, Fred Ware, dated June 16,

Allen Roberts. Is that right?
A. Yes, sir, that's correct.
JUDGE McGUIRE: Can we indicate for my clarity

Now, just to confirm, the executive group in

1994 would have included, among others, CEO Geoffrey

Tate, vice president David Mooring and vice president

20 who is John Dillon?

1994.

14

15

16

MR. OLIVER: That was my next question, YourHonor, thank you.

23 JUDGE McGUIRE: Okay.

BY MR. OLIVER:

25 Q. Mr. Crisp, could you please explain what

position John Dillon had in June of 1994? 1 A. Yes, sir. My recollection is that he was the 2 3 head of the architecture group inside of Rambus. Q. He was also Rambus' representative at JEDEC's 4 5 JC-15 committee. Is that right? 6 Α. I'm not sure if he was the representative or not. I think he was involved in that along with at 7 8 least one and possibly two other Rambus employees. 9 Q. Now, the subject line on Mr. Dillon's email is, 10 "An overlooked patent claim?" 11 Do you see that? 12 Α. Yes, sir, I do. 13 Now, I'd like to direct your attention to a few Q. 14 portions of this email and then ask you some questions. 15 First, if I could direct your attention to the 16 first paragraph and the first sentence, the first sentence reads, "Several Sync DRAMs and the MOST DRAM 17 18 include the auto-precharge feature." 19 Do you see that? 20 Yes, sir, I do. Α. 21 Now, to your understanding at the time, the Ο. 22 MOST DRAM was manufactured by a company called Mosys. 23 Is that right? 24 Α. Technical point, I don't think it was actually 25 manufactured by them. They were a fabless company, but

1 they sold it.

4

2 Q. So, Mosys designed the MOST DRAM. Would that 3 be accurate?

A. That's my understanding, yes.

Q. Now, if I could direct your attention to the fourth paragraph, Mr. Dillon states, "Claim 89 actually claims this feature. However, claim 89 is dependent on the much narrower claim 82 of a DRAM with internal select decoding. We may be able to make a broader claim on auto-precharge for *any* DRAM and therefore gain leverage over SDRAM and MOST."

12 Do you see that?

13 A. Yes, sir, I do.

Q. And then if I can direct your attention to the next paragraph, "For SDRAMs, auto-precharge is mostly a convenience. It is not fundamental to the performance or usefulness of SDRAM or MOST. But patenting this feature would have high harassment value, especially to the extent that third-party SDRAM controllers depend on it."

21 Do you see that?

22 A. Yes, sir, I do.

Q. Now, were you aware in May and June of 1994
that Rambus was discussing adding claims to its pending
patent applications to cover the auto-precharge

1 technology used in SDRAMs?

2 A. I don't really remember.

3 Did anyone within Rambus have any discussions Q. with you in the May or June 1994 time period about how 4 5 patenting the auto-precharge feature would have high 6 harassment value, especially with respect to the third-party SDRAM controllers? 7 8 Α. I don't remember. 9 Now, you attended the next regularly scheduled Ο. 10 JEDEC meeting in May of 1994. Is that right? 11 Sir, I'm not sure what the date was. Α. 12 MR. OLIVER: May I approach? 13 JUDGE McGUIRE: Yes. 14 BY MR. OLIVER: 15 Mr. Crisp, I've handed you a document marked Q. 16 JX-20. These are the minutes of the JC-42.317 subcommittee meeting held on May 25th, 1994. If I 18 could direct your attention to the first page, about 19 four-fifths of the way down, do you see your name in 20 the list of members present? 21 Yes, sir, I do. Α. 22 Q. Now, again, at this meeting, Mr. Townsend discussed the JEDEC patent policy, right? 23 24 I'm sorry, I don't remember. Α. 25 Q. If I could ask you to turn, please, to page 4,

1 and if I could direct your attention specifically to 2 paragraph 3 --

3 Excuse me, sir, could you tell me what the Α. 4 JEDEC number is, because the JX numbers are cut off? 5 Q. Yes, sir, it would be JEDEC 0015874. 6 Thank you, sir. Α. 7 Do you see item number 3 almost halfway down Q. 8 It reads "Patent Policies." the page? 9 Yes, sir, I do see that. Α. 10 Q. And it states that the patent policies were It also states that, "It as," probably means 11 shown. 12 is, "noted that the WANG patent case is coming up for trial on June 14." 13 14 Do you see that? 15 Yes, sir, I do. Α. 16 Q. Now, let me ask you to find Exhibit CX-711 in 17 front of you, please. This is the thick collection of emails. Within CX-711, if you could please turn to 18 19 page 26. 20 Now, do you see on page 26 an email beginning 21 at the top from you to yourself and M. Johnson dated 22 May 22nd, 1994? 23 Α. Yes, sir, I see that. 24 Who is M. Johnson? Ο. That's Mark Johnson. 25 Α.

Who was Mark Johnson at this time? 1 Q. He was a design engineer that was -- I think at 2 Α. 3 that time was working for Rambus. 4 Ο. And the subject is, "JEDEC memory meeting 5 report 2." 6 Do you see that? 7 Yes, I do see that. Α. 8 And again, these would have been notes that you Ο. 9 were typing on your laptop at the time of this meeting. 10 Isn't that right? 11 Yes, sir, that's correct. Α. 12 Ο. If I could direct your attention to the last 13 paragraph on page 26, it starts out, "4M (x16 14 organization) SDRAM vote." 15 Do you see that? 16 Yes, sir, I do. Α. 17 "Twelve yes, one no, six comments." Q. 18 Do you see that? Yes, I do. 19 Α. 20 So, in this portion of the meeting, you were Q. 21 actually observing ongoing tabulation of the ballot. 22 Is that right? That's correct. 23 Α. 24 If I could ask you to turn to the next page, Ο. 25 page 27, and at the top of page 27, it's a continuation

of that same discussion. Is that right? 1 2 Yes, sir, that's correct. Α. 3 And if I could direct your attention to the Q. 4 first paragraph on page 27, it reads, "Note that many 5 of the SDRAMs use an externally supplied reference 6 voltage in the input buffers. I believe we have a claim we added to cover this configuration. 7 We should 8 make note of this." Do you see that? 9 10 Α. Yes, sir, I do. 11 Now, if I could ask you to turn, please, to Ο. 12 page 31. You may want to check the pages as you go. I believe it's still a continuation of the same email. 13 14 Is page 31, in fact, a continuation of the same 15 email? 16 I believe it is, yes, sir. Α. 17 So, in other words, a continuation of your Q. 18 notes from that same meeting? I think that's correct. 19 Α. 20 And if I could direct your attention to a Q. 21 caption appearing almost halfway down the page that reads, "Second Presentations." 22 23 Α. Yes, sir. 24 And a few lines underneath that, there is a Ο. 25 block about five lines I'd like to read for you. Ιt

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1 begins, "Again." Do you see that?

2 That section reads, "Again, we need to check 3 claims about DRAM with input receivers using an 4 external supplied reference voltage. We may be able to 5 slow down or stop (or at least collect from) all of the 6 CTT, GTL and HSTL devices if this claim is allowed. 7 (Allen, I believe this was one of the claims you, 8 Lester, Tracy and I wrote up in late '91, right?)." 9 Do you see that? 10 Α. Yes, sir, I do. 11 Now, the Allen that you were referring to there Ο. 12 is vice president Allen Roberts? That's correct. 13 Α. 14 Ο. And Lester is Mr. Lester Vincent? 15 Α. That's also correct. Who is Tracy? 16 Q. 17 Tracy -- I believe her name was Tracy Hurt or Α. 18 Tracy Hurst. JUDGE McGUIRE: All right, I would like to 19 20 inquire here for the Court's clarity again, could you 21 explain to me what a CTT, GTL and HSTL are, Mr. Crisp? 22 THE WITNESS: Your Honor, you're speaking to 23 me? 24 JUDGE McGUIRE: Yes, I am. 25 THE WITNESS: Oh, can you tell me -- it's very

technical, so could you give me an idea of what you're 1 looking for so I can --2 JUDGE McGUIRE: Well, I just want to know what 3 4 that is. I mean, what is CTT, GTL and HSTL? 5 THE WITNESS: Oh, those were acronyms for 6 signaling technologies that were just various different either standards or proposals for standards. 7 8 JUDGE McGUIRE: Okay, all right, that's fine. 9 THE WITNESS: They were used on all sorts of 10 different kinds of chips. 11 JUDGE McGUIRE: All right, thank you. All right, Mr. Oliver, you may proceed. 12 BY MR. OLIVER: 13 14 So, in other words, Mr. Crisp, just to be 0. 15 clear, at this JEDEC meeting of May 27th, 1994, you 16 wrote an email back to Rambus noting two separate

17 points in the proceedings involving external supplied 18 reference voltage. Is that right?

A. Well, I wrote the email back to myself and Mr.
Johnson, so if you call that Rambus, then sure, it was
Rambus, but yes, it was mentioned twice.

Q. Well, the second passage that I've read to you appears to be addressed to Allen Roberts. Isn't that right?

25 A. Yes, sir, it is.

Q. So, it was your understanding that at least Allen Roberts would also see this email. Is that right?

A. It must have been. I don't really remember.
Q. In any event, the first of the occasions which
external supplied reference voltage arose was during
the tabulation of the ballots. Is that right?

A. I -- I don't remember if that was the first
9 time I'd seen that.

Q. With respect to this email, the first passagethat we just looked at at the top of page 27.

A. Let me look at that again, sir. Yes, sir, I think that was the first time it had come up in that meeting.

Q. Now, you never informed JEDEC at this meeting that you had worked on claims relating to externally supplied reference voltage, did you?

18 A. Yes, that's correct.

19 Q. You never informed JEDEC that Rambus might be 20 able to slow down or stop or at least collect from 21 various devices relating to externally supplied 22 reference voltage if the claim is allowed, did you? 23 A. That's also correct.

24 MR. OLIVER: May I approach, Your Honor?25 JUDGE McGUIRE: Yes.

BY MR. OLIVER:

2 Mr. Crisp, I've handed you a document marked Ο. 3 CX-746. It consists of a handwritten note, copy, Rick, 4 Fred, Dillon. Original, arrow, Allen. This is 5 Lester's attempt to either work or write the claims for the MOST/SDRAM defense. Please comment. Allen." 6 Attached to that is a letter from Scott Griffin 7 8 of Blakely Sokoloff. "Enclosed for your review is a 9 draft of a Preliminary Amendment for the 10 above-identified patent application, " followed on page 11 3 by a document captioned Preliminary Amendment, 12 stamped "Draft" at the top. 13 I would like to direct your attention to a 14 couple portions of this document and ask you some 15 questions. 16 MR. PERRY: Your Honor, I notice Mr. Crisp was 17 not copied on this. May I suggest that there be a 18 foundation laid before he goes to it and starts asking 19 questions? 20 JUDGE McGUIRE: All right, so noted, Mr. Perry. 21 BY MR. OLIVER: 22 Q. Mr. Crisp, if I could ask you to turn first to 23 page 4, I'd like to direct your attention to claim 24 number 151 appearing at the bottom of that page and 25 carrying over to the top of page 5. The claim reads,

"A dynamic random access memory (DRAM) capable of being 1 2 coupled to a bus, the DRAM comprising: A first circuit 3 for generating a clock signal; a conductor for coupling the DRAM to the bus; and a receiver circuit coupled to 4 5 the conductor and the first circuit. The receiver 6 circuit for latching information received from the," continuing at the top of page 5, "conductor in response 7 8 to a rising edge of the clock signal and a falling edge 9 of the clock signal."

10 Do you see that?

11 A. Yes, sir, I do.

Q. Now, in or about August of 1994, do you recall having any discussions with vice president Roberts concerning claims involving a rising and falling edge of the clock signal?

16 A. Regarding the what, the clock signal?

17 Q. Let me restate the question.

18 A. Thank you.

19 Q. In or about -- excuse me.

20 I apologize, Your Honor.

21 JUDGE McGUIRE: That's all right.

22 BY MR. OLIVER:

Q. Mr. Crisp, in or about August of 1994, do you
recall having any conversations with vice president
Roberts concerning claims to be added to Rambus'

1 pending patent applications relating to use of a rising 2 edge and a falling edge of a clock signal?

3 A. No, sir, I don't.

Q. If I could ask you to turn, please, to page 9, I'd like to direct your attention to claim 167. This claim carries over to page 10, but I'll only be focusing on a portion of it.

Claim 167 reads, "A dynamic random access 8 9 memory (DRAM) comprising an array of memory cells 10 connected in rows and columns, the array of memory 11 cells corresponding to a range of addresses, wherein 12 the array of memory cells is subdivided into a 13 plurality of memory sections, each of the memory 14 sections being assigned a portion of the range of addresses," then it continues. 15

16

Do you see that?

17 A. Yes, sir, I do.

Q. Do you recall in or about August of 1994 having any conversations with vice president Roberts with respect to claims to be added to Rambus' pending patent applications regarding use of arrays of memory cells subdivided into sections?

A. No, sir, I don't.

Q. All right, let me ask you if you could turn,please, to page 10, and let me direct your attention

specifically to claim number 171, and you'll see that this is a dependent claim. Do you have that, Mr. Crisp?

A. Yes, sir, I do.

Q. Claim 171 reads, "The DRAM of claim 170, wherein sense amps coupled to columns of a first memory section are for selectively precharging the columns of the first memory section to a value intermediate to logical 0 and 1 when an access mode for the first memory section is a normal mode."

- 11 Do you see that?
- 12 A. Yes, sir, I do.

Q. In or about August of 1994, do you recall having any discussions with vice president Roberts with respect to claims to be added to Rambus' pending patent applications with respect to use of selectively

- 17 precharging columns?
- 18 A. No, sir, I don't.

19 Q. Mr. Crisp, let me direct your attention to the 20 first page of CX-746. Again, Mr. Roberts' statement, 21 "This is Lester's attempt to work," or write, "the 22 claims for the MOST/SDRAM defense."

- Do you see that?
- A. Yes, sir, I do.

25 Q. Do you recall having any discussions with vice

president Roberts in or about August of 1994 concerning 1 2 Mr. Vincent's attempts to write claims for the SDRAM 3 defense? 4 Α. No, sir, I don't. 5 Q. Now, Mr. Crisp, you attended the next regularly 6 scheduled JEDEC meeting in September of 1994, right? 7 I'm not certain of the date, sir. Α. 8 MR. OLIVER: May I approach, Your Honor? 9 JUDGE McGUIRE: Yes. 10 BY MR. OLIVER: 11 Mr. Crisp, I've handed you a document marked Ο. 12 JX-21. These are the minutes from the September 13, 13 1994 JC-42.3 subcommittee meeting. Now, Mr. Crisp, do 14 you recall whether you attended this meeting? 15 Α. Yes, I do. 16 Did you attend this meeting? Q. 17 Yes, I did. Α. 18 Now, again, at this meeting, Mr. Townsend Q. 19 presented the JEDEC patent policy, didn't he? 20 Α. I don't remember. 21 If I could ask you to turn to page 4, item Ο. 22 number 4, Patent Presentation. Do you see that? 23 Α. Yes, sir, I do. 24 "Mr. Townsend presented the patent policies Ο. (see Attachment A). Various news articles relating to 25

1 patents were shown (see Attachment B)."

2 Do you see that?

3 A. Yes, I do.

Q. Does that refresh your recollection that Mr.
Townsend showed the JEDEC patent policy at this
meeting?

A. Yes, it does.

7

Q. Now, Mr. Crisp, if I could ask you to turn,
please, to page 86, this is a page that bears the
handwritten caption Attachment AA, and turned sideways,
the lower right-hand corner, NEC, and across the top,
About Mode "Number of Banks."

13 Do you see that?

14 A. Yes, I do.

15 Q. Now, you recognize this is a presentation made 16 by NEC that you observed at this JEDEC meeting?

17 A. Yes, sir.

Q. Let's skip ahead, if we could, to page 91. This is a page with the caption PLL Enable Mode, and underneath that, "On-Chip-PLL Improves Access Time," and underneath that two diagrams, on the left-hand side, "Without PLL," and on the right-hand side, "With PLL."

24 Do you see that?

25 A. Yes, sir, I do.

Q. Now, you recognize this as part of the NEC
 presentation that you observed at the September 1994
 JEDEC meeting?

4 A. Yes, sir.

5 Q. We can set this aside now.

If I could ask you to locate again CX-711 in front of you, that's the 200-page collection of emails. If I could ask you to turn within CX-711, please, to page 36. If I could direct your attention to the portion towards the top of the page, there's a short space, and there's a line, "From," with a series of question marks.

13 Do you see that?

14 A. Yes, sir, I do.

Q. And if you could look at the series of lines following that, that indicates that this is an email from you to the executive group and the marketing group at Rambus dated September 14, 1994. Is that right?

19 A. Yes, sir, that's right.

20 Q. And again, the executive grouping at this time 21 would have included CEO Geoff Tate, vice president 22 Allen Roberts and vice president David Mooring, among 23 others, right?

A. Yes, sir, that is correct.

25 Q. And this is an email that you wrote from the

1 JEDEC meeting, right?

2 A. Yes, sir.

JEDEC number 3 is the third set of notes that 3 Ο. 4 you wrote from this particular JEDEC meeting? 5 Α. I'm not sure about that, but that's what it 6 says. Okay. In the Subject line, right after JEDEC 7 Q. 8 number 3, all caps, "NEC PROPOSES PLL ON SDRAM!!!," 9 three exclamation points. 10 Do you see that? 11 Yes, sir, I do. Α. 12 Ο. If I could direct your attention about ten 13 lines further down, it's a line beginning with seven or 14 eight stars. Do you see that? 15 Yes, sir, I do. Α. 16 "The big news here is the inclusion of a PLL Q. 17 enable mode option," followed by several more stars. 18 Do you see that? 19 Α. Yes, sir, I do. 20 And then you go on to describe some other Q. 21 features, right? 22 Α. Yes, sir, that's correct. 23 And then if you look another eight or so lines Q. 24 further down, some more stars, do you see, "The PLL mode," followed by more stars? Do you see that? 25

1

A. Yes, sir, I do.

2 And the line underneath that, "They plan on Ο. 3 putting a PLL on board their SDRAMs." 4 Do you see that? 5 Α. Yes, I do. 6 Now, if I could direct your attention down to Ο. the next to last line, and it carries over, the last 7 8 two lines on this page, "Obviously we need to think 9 about our position on this for potential discussion 10 with NEC regarding patent issues here." 11 Do you see that? 12 Α. Yes, sir, I do. 13 NEC, again, is the company that was making this Q. 14 presentation, right? 15 Α. That's correct. 16 And then if we could look at the top of page Ο. 17 37, please. 18 Α. Yes. Again, more stars, the top couple of lines, "I 19 Q. 20 believe that we have now seen that others are seriously 21 planning inclusion of PLLs on board SDRAMs." 22 Do you see that? 23 Α. Yes, I do. 24 And then the last line of that paragraph, "What Ο. 25 is the exact status of the patent with the PLL claim?"

1

Do you see that?

2 A. Yes, I do.

Q. And although you used the word "patent" in that sentence, you actually were referring to a patent application. Is that right?

6 A. That's probably true.

Q. That is, you were asking what is the status of the pending patent application that contained the PLL claim, right?

A. Well, it was really -- I guess I wasn't even sure if we had an application filed yet, but that's what my concern was about roughly.

Q. Well, do you recall in September of 1992 you met with Mr. Lester Vincent, and you discussed claims relating to PLL, right?

A. I'm not sure about the date. I think we did
discuss yesterday that I had such a discussion with Mr.
Vincent. Again, I don't remember the date.

19 Q. And you recall in your email exchange with Mr.
20 Fred Ware in February of 1993 that PLLs was one of the
21 items on your list?

A. Something related to PLLs, yes, I do recallthat.

Q. And do you recall that in Fred Ware's email of June 18, 1993 that we looked at, in fact, earlier this

morning, that one of the items on this list also 1 2 related to PLLs? Do you recall that? 3 I think that's right, yes. Α. 4 And do you recall we also saw a letter that Ο. 5 Lester Vincent had written to you dated June 30, 1993 6 enclosing a copy of the application that he had filed? 7 MR. PERRY: Your Honor, I believe that 8 misstates the evidence if he's referring to -- if he's 9 referring to the same document I think he is. I may be 10 wrong. 11 JUDGE McGUIRE: Mr. Oliver, do you want to 12 respond to that? MR. OLIVER: Your Honor, I can withdraw that 13 14 question and go back and find the documents. 15 JUDGE McGUIRE: Okay. 16 MR. OLIVER: Could we have just a moment, Your 17 Honor? 18 JUDGE McGUIRE: Yes, go ahead. 19 MR. PERRY: Maybe you could just show it to me, because I might have a different one in mind. 20 21 (Counsel conferring.) 22 JUDGE McGUIRE: Then, Mr. Perry, do you still 23 have any problems? 24 MR. PERRY: As framed, it just says it's an 25 application, and I'm fine with that.

JUDGE McGUIRE: Okay. All right, Mr. Oliver,
 you may proceed.

3 Your Honor, perhaps if I could MR. OLIVER: approach the witness, I could show him the documents 4 5 and refresh his recollection. 6 JUDGE McGUIRE: Go ahead. BY MR. OLIVER: 7 8 Mr. Crisp, I've handed you a document that's Q. 9 marked as CX-1961 and CX-1457. Do you recognize that 10 as a cover letter sent to you by -- or copied to you by 11 Mr. Lester Vincent enclosing a copy of the '692 12 application filed in June of 1993? 13 I'm sorry, I don't recognize it. Α. 14 Ο. You have no reason to doubt, though, that Mr. 15 Vincent did, in fact, send you a copy of the '692 16 application in June of 1993. Is that right? That's correct. 17 Α. MR. OLIVER: Your Honor, I've given the witness 18 my only copies. May I approach to retrieve those? 19 20 JUDGE McGUIRE: Yes, you can get it back. 21 MR. OLIVER: Thank you. 22 Thank you, Mr. Crisp. 23 Actually, Your Honor, I had omitted earlier to move for admission of CX-1961 into evidence. 24 25 JUDGE McGUIRE: Objection?

1 MR. PERRY: No objection, Your Honor. 2 JUDGE McGUIRE: Entered. 3 (CX Exhibit Number 1961 was admitted into evidence.) 4 5 BY MR. OLIVER: 6 Mr. Crisp, just so that the record is clear, as Ο. 7 of the time that you wrote your email in September of 8 1994, the documents I've just shown you refresh your 9 recollection that you had had information with respect 10 to the amendment that Lester Vincent had filed in June of 1993? 11 12 Α. I'm sorry, could you ask the question again? 13 Yes. Looking at your state of mind in Q. 14 September of 1994 when you wrote the email, CX-711, 15 page 36 that we were just looking at, and my question 16 is whether the two documents I've just shown you, CX-1961 and CX-1457, refresh your recollection that as 17 of September 1994, you, in fact, had knowledge that 18 Lester Vincent had filed the '692 application. 19 20 Oh, it doesn't -- it doesn't refresh my memory Α. 21 of that. Sorry. 22 Q. Now, Mr. Crisp, when you wrote your email of 23 September 14, 1994, you actually considered the 24 possibility of bringing this patent issue up at JEDEC, 25 didn't you? For The Record, Inc.

1 A. I'm not really sure.

2 But in any event, you did not bring this patent Ο. issue up at this September 1994 JEDEC meeting, did you? 3 4 Α. I don't believe I did, no, sir. 5 Ο. So, in other words, you did not say anything at 6 this JEDEC meeting concerning the patent application 7 that Rambus had on file at this time relating to PLLs. 8 Is that right? 9 I believe that's correct, yes. Α. 10 Q. However, that very same day, you had further 11 correspondence with vice president Allen Roberts and others concerning this same patent application. 12 Isn't 13 that right? 14 Α. I'm not certain of that. 15 MR. OLIVER: May I approach? 16 JUDGE McGUIRE: You may. BY MR. OLIVER: 17 18 Mr. Crisp, I've handed you a document marked Q. 19 CX-757. Now, you recognize this as an email that you 20 sent to the Rambus executive group also on September 21 14, 1994? 22 Α. Yes, sir, I do. 23 Now, you recognize this as an email you sent Q. 24 after the email we looked at just a moment ago. Ιs

25 that right?

I'm not sure of the order, sir. 1 Α. 2 If I could ask you to turn back to CX-711, page Ο. 3 36. If you could look in the caption, you'll see a number of different timestamps. You'll see a timestamp 4 5 of 14:56, and next to the date 14 September 1994 is a 6 timestamp of 15:59, and the very top line a timestamp 7 of 16:00. 8 Does this refresh your recollection that this 9 email was sent sometime around 3:00 or 4:00 in the 10 afternoon? 11 Yes, sir, it does. Α. 12 Ο. If I could ask you to turn back now, please, to 13 CX-757. 14 Α. Yes, sir. 15 And next to the date, you'll see a timestamp of Ο. 16 Do you see that? 19:30. 17 Yes, sir, I do. Α. 18 Does this refresh your recollection that CX-757 Q. 19 was sent at about 7:30 in the evening? 20 MR. PERRY: Your Honor, if I could ask for 21 clarification in the question about what time zone 22 we're in? I see one was PDT. 23 JUDGE McGUIRE: Mr. Oliver? BY MR. OLIVER: 24 25 Mr. Crisp, do you recall what time zone you Q.

1 were in?

2 A. Well, I was in Albuquerque, New Mexico, so I think that's the Mountain Time Zone. 3 Q. Does the timestamp refresh your recollection 4 5 that CX-757 was sent at around 7:30 p.m. in either the 6 Mountain Time Zone or the Pacific Time Zone? 7 I'm sorry, I can't -- I can't remember it just Α. 8 from looking at this document. 9 In any event, the timestamps we just looked at Ο. 10 refresh your recollection that CX-757 was sent later 11 than page 36 of CX-711? 12 A. No, looking at the documents doesn't help me remember that. 13 14 Okay. Looking at CX-757, towards the top, do 0. 15 you see four lines with arrows in front of them? 16 Yes, sir, I do. Α. 17 Now, this, again, is a portion of an embedded Q. 18 email that was sent to you. Is that right? 19 Α. Yes, sir, I think that's what that means. 20 And this particular portion was sent to you by Q. 21 Allen Roberts, right? 22 Α. I think that's right. 23 And above that there's a line that says, "Stuff Q. about concern that a PLL on a DRAM may not be 24 25 defendable from a patent challenge perspective

1 deleted."

2 Do you see that?

3 A. Yes, sir, I do.

Q. And then Allen -- or a portion of Allen
Roberts' message that survives here reads, "So if we
want to fight this one (after the claim is issued), we
better stock up our legal warchest."

8 Do you see that?

9 A. Yes, sir, I do.

10 Q. And then you -- the following text is your 11 response to his email. Is that right?

12 A. Yes, sir, that's right.

13 Q. But you responded not only to him but to the 14 entire executive group?

15 A. That's correct.

Q. If I could direct your attention to the third paragraph of your portion of the email, the first sentence there reads, "With nature running its usual course, there could be an issued patent with an infringing product about the time we are making an IPO."

22 Do you see that?

23 A. Yes, sir, I do.

Q. And then directing your attention to the -- to the next paragraph, you write, "It seems likely we will

1 have to fight litigation at some point in the future,"
2 right?

3 A. Yes, sir.

Q. Now, in that sentence, you are referring to
patent infringement litigation to enforce a patent on
PLL in DRAM, right?

A. I'm not sure to what I was referring here.
MR. OLIVER: May I approach, Your Honor?
JUDGE McGUIRE: Yes.

10 BY MR. OLIVER:

11 Q. Mr. Crisp, I've handed you a copy of a 12 deposition of you that was taken in the FTC matter on 13 February 14, 2003. I'd like you to turn, please, if 14 you could to page 46, and I'd like to direct your 15 attention simply to lines 3 through 6 on that page. 16 I'm sorry, could you repeat that? Α. 17 Yes, page 46. Q. 18 Α. Yes.

MR. PERRY: Could I speak to Mr. Oliver for just a second?

21 (Counsel conferring.)

22 MR. OLIVER: Could I have just a moment, Your 23 Honor?

24 JUDGE McGUIRE: All right, go ahead.

25 (Pause in the proceedings.)

MR. OLIVER: Your Honor, let me set the 1 2 transcript aside and let me see if I can get at this 3 with one or two other questions. 4 JUDGE McGUIRE: All right. 5 MR. PERRY: Thank you. 6 BY MR. OLIVER: 7 Mr. Crisp, if you could set that transcript Q. 8 aside, and if I could ask you to take another look at 9 CX-757. 10 Α. I'm sorry, which one, 757? 11 CX-757 is your email of September 14, 1994, Ο. 12 19:30, containing the embedded lines from Allen 13 Roberts. 14 Α. I think I lost it. Let me see. 15 MR. PERRY: I have one. He can have mine. 16 MR. OLIVER: May I approach? 17 THE WITNESS: Thank you. BY MR. OLIVER: 18 19 Mr. Crisp, let me direct your attention back to Q. 20 the embedded portion of the -- the embedded text in 21 this email, the portion written by Allen Roberts. Now, you understood that when Allen -- when Allen Roberts 22 23 was referring to "if we want to fight this one," he was 24 referring to a patent claim related to PLL on a DRAM? 25 Α. I think that's possible. I don't -- I don't

really remember this email very well, but that's
 certainly possible.

3 Q. That's your best recollection, though, isn't 4 it?

A. Well, there's -- there's a possible second recollection, and I'm just not really sure which one it is, and it relates to the comment that I made back in my JEDEC minutes about NEC potentially using the Tom Li PLL. So, I don't remember which -- which thing I was thinking about.

Q. Okay, then let me ask you to pick up your FTC
 deposition transcript, please.

13 A. Okay.

Q. If I could actually ask you to turn, please, to page 45, if you want to take a look beginning at line 16 11 just to get the context, I am going to ask you specifically on line 23.

18 A. (Document review.)

19 Q. If you've had a chance to look at that, let me 20 read to you page 45, line 23, through line 46 -- page 21 46, line 6.

22 A. Okay.

23 Q. "QUESTION: What do you understand Allen 24 Roberts to mean in that sentence?

25 "ANSWER: I think Allen had some opinions that

he was expressing about whether or not we would be able 1 2 to successfully defend a patent claim. "OUESTION: Do you understand what patent claim 3 4 he had in mind? 5 "ANSWER: What I remember is this was relating 6 to a patent claim being -- having a PLL on a DRAM." 7 Do you see that? 8 Yes, sir, I do. Α. 9 Now, when you wrote your text in CX-757, that Ο. 10 was what you were responding to. Is that right? It must have been. 11 Α. 12 Ο. All right. And you had in mind litigation 13 against DRAM manufacturers, didn't you? 14 Well, I don't think I quite state that. I Α. 15 thought it was possible there could be some litigation 16 in the future. 17 And that litigation would naturally involve Q. DRAM manufacturers, wouldn't it? 18 19 Well, it might, and it might not. I just don't Α. 20 know. 21 In any event, litigation might involve some of Ο. 22 the other companies sitting in the very JEDEC room that 23 day, wouldn't it? 24 That's certainly a possibility. Α. 25 Q. If I could direct your attention back to

1 CX-757, continuing with the fourth paragraph in the 2 text that you wrote, the last two sentences of that 3 paragraph read, "I think it is very important to go 4 after one we are certain we can win first. We don't 5 need a loss on the first challenge."

6 Do you see that?

7 A. Yes, sir, I do.

Q. So, in other words, you were contemplating
patent litigation that Rambus would instigate. Isn't
that right?

A. You say "contemplate." I -- I guess I was.
I'm not sure how strongly I believed it was -- it would
happen, but you know, I said in here it seems likely.
It seemed like it was a -- it was a real possibility.

Q. In any event, in your email, you then go on to talk about the possibility of getting NEC to sign a license agreement, right?

A. Yes, that's right. They were one of our
licensees, and we had a pretty good relationship with
them.

Q. And pursuant to the license agreement you had in mind, Rambus could get some bucks out of the deal in license fees and royalties?

A. Generally we got paid when we licensed ourtechnologies.

Q. And then you added, and let me direct your 1 2 attention here to the last paragraph on the first page of CX-757, the fifth line, "I think if we can get them 3 4 to agree to such a deal that the patent issue could be 5 brought up in JEDEC." 6 Do you see that? 7 Yes, sir, I do. Α. 8 And the "them" you're referring to in that Ο. 9 sentence is NEC? 10 Α. Yes, I think that's right. 11 So, in other words, if Rambus could get NEC to Ο. 12 agree to a license, then Rambus could bring up the 13 patent issue in JEDEC, right? 14 Α. I think that's what that says. 15 And then you carry on to the next page, page 2 Ο. 16 of CX-757. 17 Α. Yes. 18 And your concluding sentence is, though, "The Q. 19 last paragraph is probably only a dream." 20 Do you see that? 21 Yes, I do. Α. 22 And again, those were your views that you sent Q. 23 to CEO Geoff Tate, vice president David Mooring, vice 24 president Allen Roberts and the rest of the executive 25 group in September 1994 after having seen the PLL

presentation at JEDEC. Isn't that right? 1 2 Well, I don't agree with that. What I saw at Α. 3 JEDEC was a presentation for a proposal for how to 4 modify the mode register that had already been a part 5 of the standard. 6 Let me ask you to turn back to CX-711, please. 0. This is the 200-page compilation of emails. If I could 7 8 ask you to turn, please, to page 36, looking at the 9 Subject line, "JEDEC number 3, NEC proposes PLL on 10 SDRAM." 11 Do you see that? 12 Α. Yes, I do. 13 And looking about three-guarters of the way Q. 14 down, the line with the stars, "the PLL mode," do you 15 see that? 16 Yes, I do. Α. 17 The next line reads, "They plan on putting a Q. PLL on board their SDRAMs." 18 19 Do you see that? 20 Yes, I do. Α. 21 That's what you summarized and that's what you Ο. 22 wrote home based on what you observed at that JEDEC 23 meeting. Is that right? 24 A. Well, that's part of it. I think there was a 25 lot more to it that you didn't mention. For example,

1 the stars up above where there was actually a PLL

2 enable mode option that was the -- I think that was the 3 proposal or part of the proposal.

Q. Sure, but that contemplated putting a PLL on
board their SDRAMs as you wrote in your email. Isn't
that right?

A. That's correct, yes. It's just that's not what8 their proposal was.

9 Q. Well, you recognized from the proposal that 10 they contemplated putting PLLs on SDRAMs, correct?

11 A. That's correct.

Q. Now, there was further discussion of this issue
within Rambus in October of 1994. Isn't that right?
A. I don't remember that.

Q. Well, isn't it true that in this time period that you believed that Rambus' pending patent application with claims covering use of PLLs on SDRAMs was one of Rambus' key technology patents?

A. Well, I wasn't sure whether or not we actually had a broad claim in that area, but if we did, I would have viewed it as one of our key technology patents.

Q. And you hoped that Rambus would sue other companies for using PLLs on SDRAMs in the future, didn't you?

25 A. Well, assuming that we had a claim that issued

that was broadly enough to support that, sure. 1 2 MR. OLIVER: May I approach, Your Honor? 3 JUDGE McGUIRE: Yes. 4 BY MR. OLIVER: Q. 5 Mr. Crisp, I've handed you a document marked 6 CX-763. This is an email from you to vice president Roberts and the executive group dated October 25, 1994, 7 8 the subject regarding Samsung deal details. 9 Do you see that? 10 Α. Yes, I do. 11 Now, just to put this in perspective, in Ο. 12 October of 1994, Rambus was negotiating a license 13 agreement with Samsung. Is that right? 14 Α. I'm not sure of the dates, but that sounds 15 about right. 16 Okay. And Rambus wanted to negotiate a license Ο. 17 for so-called compatible uses. Is that right? 18 Well, actually, I think Samsung wanted that Α. provision. I'm sorry, could you ask the question 19 20 Maybe I answered wrongly. again? 21 Yes. Rambus wanted to negotiate a license for Ο. 22 compatible uses. Isn't that right? 23 Α. Yeah, compatible with the Rambus interface 24 spec, that's correct, yes. 25 Q. In other words, that would be the equivalent to

1 a license to construct the RDRAM --

2 A. That's right.

3 Q. -- DRAM?

A. That's right.

5 Q. But Samsung actually wanted to negotiate a 6 general purpose license. Isn't that right?

A. Well, I'm not sure that that was what they
8 wanted. I think they wanted a somewhat broader
9 license.

10 Q. In any event, they wanted a license that would 11 be broader than just RDRAM. Is that right?

12 A. I believe that's correct, yes.

Q. And they wanted that so Samsung could manufacture other types of DRAMs, and if they happened to use the Rambus technology in doing so, that they wouldn't be sued. Isn't that right?

A. Well, I think that's what their goals were, and
I think we were trying to come up with a compromise
situation that both parties would like.

Q. Now, internal discussions within Rambus concerning PLL came up in connection with these Samsung negotiations, right?

A. Yes, that's correct. That's what I remember.
Q. Now, with respect to CX-763, once again,
there's an embedded portion of the email at the top.

1 Do you see that?

2 A. Yes, sir, I do.

3 And that embedded portion of the text is from Q. Allen Roberts. Is that right? 4 5 Α. I believe that's correct. 6 And it consists of his comments to CEO Geoff Ο. 7 Tate? 8 Α. Yes. 9 And if I could direct your attention to I guess Ο. 10 it's the third paragraph of the embedded text, it 11 starts, "Is the following a mistype on your part?" 12 Do you see that? 13 Yes, I do see that. Α. 14 Ο. And in the next sentence, Allen Roberts writes 15 to CEO Geoff Tate, "Why can't we sue for using PLL on 16 an SDRAM if we granted that patent?" 17 So, that's what Allen Roberts wrote to Geoff Tate, right? 18 19 Α. Yes, that looks right. 20 And then the following portion is the part of Q. 21 the email that you wrote? 22 Α. Yes. 23 And again, you sent this in response to vice Q. 24 president Roberts' comments, but you sent it to all 25 executives, right?

Yes, that's right. 1 Α. 2 And you stated, "I've felt for some time that Ο. 3 we need to hold this as one of our key technology 4 patents." 5 Do you see that? 6 Α. Yes, sir, I do. And you continue, "If it is allowed, we need to 7 Ο. be able to collect on it, " right? 8 9 Yes, sir. Α. 10 Q. What you meant by that is that Rambus needed to 11 be able to collect royalties. Isn't that right? 12 Α. Royalties, license fees, whatever -- whatever 13 monies we could get for it. 14 Ο. If I could direct your attention, then, down to 15 the next to the last paragraph, at that point you 16 wrote, "I would hope we would sue other companies, in 17 particular those that are not licensed." 18 Do you see that? Yes, sir. 19 Α. 20 And by that you meant that you hoped Rambus Q. 21 would sue in particular companies that had not signed a Is that right? 22 license for RDRAM. 23 Α. Yes, sir, I think that's what that's saying. 24 But you also wanted to sue companies that were Ο. 25 licensed for RDRAM. Isn't that right?

1 A. Sure.

Q. Your next sentence reads, "For those that are licensed --" and you mean there licensed for RDRAMs, right?

5 A. That's correct.

Q. "For those that are licensed, I would like tosee us collect a similar royalty as for RDRAMs."

8 In other words, you wanted to have Rambus 9 collect a similar royalty for using PLLs on SDRAMs as 10 they were getting for RDRAMs. Isn't that right?

11 A. Yes, I think that's what I was thinking.

Q. And then with respect to the last paragraph, you then added, "Regarding the Samsung contract, is it possible to weasel it back to 'will not sue for non-intentional infringement of non-key technologies'

16 and not explicitly specify PLL on an SDRAM?"

17 Do you see that?

18 A. Yes, I do.

Q. And again, your concern here was that Samsung might end up with a license provision that would prevent Rambus from suing Samsung for using PLL on an SDRAM. Isn't that right?

A. I think that's what my concern was.

24 Q. And you were making the suggestion in order to 25 try to hold open the possibility that Rambus could sue

Samsung for using PLL on SDRAMs in the future. Isn't that right?

3 A. Yes, sir. Of course, our real goal would be 4 just to have a license agreement with them, and if necessary, we need to back that up with the threat of 5 6 suit if they were unwilling to license. 7 Q. So, your real goal was to have a license 8 agreement providing for the payment of royalties, but 9 if that were not possible, then you would seek to 10 obtain royalties. Is that right? 11 Yes, sir, I think that was implicit in that Α. 12 entire email. 13 Now, Geoff Tate then responded that it was not Q. 14 possible to weasel the language back, didn't he? 15 Α. I don't recall. 16 MR. OLIVER: May I approach? 17 JUDGE McGUIRE: Yes. BY MR. OLIVER: 18 19 Mr. Crisp, I've handed you a document marked Q. 20 CX-765. This is an email from Geoff Tate to the 21 executive group and to you dated October 25, 1994. 22 Again, it contains a section of text with arrows in 23 front of it that appears to be embedded text that has 24 the attachment "Allen sent."

25 Do you see that?

1 A. Yes.

2 Then there is a portion of the text that does Ο. 3 not have arrows, but a portion at the top that says "Richard sent." 4 5 Do you see that? 6 Yes, that's right. Α. 7 And do you recognize that as the same language Q. 8 that's in CX-763 that we just looked at? 9 I think that's right. Α. 10 Q. And then looking three paragraphs up from the bottom, there's a caption, "Geoff's Reply." 11 12 Do you see that? Yes, I do. 13 Α. 14 Ο. That indicates that the remainder of the text 15 in this email is from Geoff Tate? 16 Well, at least down to a certain level. Α. At least down to the first of the double dotted 17 Q. 18 lines on page 2. Is that right? Yes, that's what I had in mind when I said 19 Α. 20 that. 21 Now, Geoff Tate wrote that Rambus couldn't get Ο. 22 a Samsung deal without something like the IP compromise 23 that Rambus had already offered Samsung. Isn't that 24 right? 25 Α. That's what he says in here.

Q. Now, you responded to Geoff Tate's email by 1 2 saying that in a way, it was good having Samsung 3 licensed to use PLLs on SDRAMs, because Samsung would then pull the market along in that direction, right? 4 5 Α. I'm not sure that I remember that. 6 MR. OLIVER: May I approach? JUDGE McGUIRE: 7 Yes. 8 BY MR. OLIVER: 9 Mr. Crisp, I've handed you CX-766. This is an Ο. 10 email from you to CEO Geoff Tate and to the executive 11 group dated October 26th, 1994. 12 Do you see that? 13 Yes, sir, I do. Α. 14 Now, this email again has embedded text with Ο. 15 arrows in front of it, and the embedded text here 16 appears to be Geoff Tate's email. Is that right? 17 Yes, sir, that's correct. Α. 18 And looking four paragraphs from the bottom, Q. 19 that's the portion then that you wrote? 20 Yes, that's right. Α. 21 If I could direct your attention to the next to Ο. 22 the last paragraph on the first page, you wrote, "In a 23 way it is good having Samsung licensed to do it as they will pull the market along in that direction." 24 25 Do you see that?

Yeah, it largely says that. 1 Α. 2 And it continues, "As others that we have not Ο. made the covenant not to sue follow, we get 3 4 opportunities to sue them. This assumes that the 5 patent issues with that claim intact." 6 Do you see that? 7 Yes, sir, I do. Α. So, in other words, what you were saying here 8 Ο. 9 is that by having Samsung licensed to put PLLs on 10 DRAMs, they would then start to do that, and other 11 companies would follow Samsung, right? 12 Α. I believed that that was a real possibility. 13 And then when other companies did that, Rambus Q. 14 would then have the opportunity so sue other companies for using PLLs on SDRAMs, right? 15 16 Α. Yes, that's correct. 17 Now, again, you never told the JEDEC 42.3 Q. 18 subcommittee that you, Allen Roberts and others 19 contemplated that Rambus would fight litigation against 20 other DRAM manufacturers to enforce a patent on using 21 PLL on an SDRAM, did you? 22 Α. I think that's correct, yes. 23 And you also never informed the JEDEC JC-42.3 Q. subcommittee that Rambus might have opportunities to 24 25 sue other companies if they followed Samsung in using

1 PLLs on SDRAMs. Isn't that right? 2 Could you ask the question again, please? Α. Yes. You never informed the JEDEC JC-42.3 3 Ο. subcommittee that Rambus might have opportunities to 4 5 sue other companies if they followed Samsung in putting 6 PLLs on SDRAMs. Isn't that right? 7 A. Yes, that's correct. 8 MR. OLIVER: Your Honor, this is perhaps --9 it's still a bit early, but this would be a good 10 breaking point. Would this be a convenient place to break for lunch? 11 12 MR. PERRY: No objection, Your Honor. 13 JUDGE McGUIRE: All right, it's 12:10. Why 14 don't we take a break for lunch and reconvene at 1:30, 15 okay? 16 MR. OLIVER: Thank you, Your Honor. 17 JUDGE McGUIRE: Hearing in recess. 18 (Whereupon, at 12:10 p.m., a lunch recess was 19 taken.) 20 21 22 23 24 25

1	AFTERNOON SESSION
2	(1:30 P.M.)
3	JUDGE McGUIRE: This hearing is now in order.
4	I guess at this time you may continue, Mr. Oliver, with
5	your inquiry of the witness.
6	BY MR. OLIVER:
7	Q. Thank you, Your Honor.
8	Good afternoon, Mr. Crisp.
9	A. Good afternoon, Mr. Oliver.
10	Q. Mr. Crisp, I just wanted to wrap up one point
11	left from this morning. Do you recall the September
12	1994 JEDEC meeting, we looked at your email that you
13	wrote back to Rambus from that meeting?
14	A. Maybe you could tell me a little more about it.
15	I'm not sure I remember exactly which meeting that was
16	or which email to which you refer.
17	Q. There was an email to which you made reference
18	with respect to an NEC proposal. Do you recall that?
19	A. Yes, sir, now I remember which one you're
20	talking about.
21	Q. And I believe you stated that they were
22	proposing to put PLLs on SDRAMs. Do you remember that?
23	A. That's what I said in my email, yes.
24	Q. Now, was that also known as on-chip PLL?
25	A. Are you referring to the proposal?

To the technology, yes. 1 Q. 2 Well, the proposal --Α. 3 MR. PERRY: Objection, vague as to what he 4 means by "the technology." 5 JUDGE McGUIRE: I'm sorry, Mr. Oliver, I 6 couldn't hear you, to the technology. Restate it, if 7 you would, Mr. Oliver. 8 BY MR. OLIVER: 9 Ο. Yes, Your Honor. 10 With respect to the NEC proposal that I believe 11 you characterized as they were proposing to put PLLs on 12 SDRAMs, is that technology also known as on-chip PLL? MR. PERRY: Your Honor, I would object that 13 14 there's no foundation. He doesn't even have a 15 presentation in front of him that it's in the minutes. 16 He ought to be shown that before he can say what the 17 technology is. 18 MR. OLIVER: Your Honor, I can show him his email if he would like. 19 20 JUDGE McGUIRE: All right, go ahead. 21 MR. OLIVER: May I approach, Your Honor? 22 JUDGE McGUIRE: Yeah, go ahead. 23 BY MR. OLIVER: Mr. Crisp, I've handed you CX-711, if you could 24 0. 25 please turn to page 36. Do you see the email beginning

1 on that page?

2 Α. Yes, sir, I do. 3 Q. If I could direct your attention to the caption 4 and specifically to the subject line that reads, "JEDEC 5 number 3, NEC proposes PLL on SDRAM." Do you see that? 6 Α. Yes, sir, I do. 7 Now, the technology that you were describing in Ο. 8 the caption of your email there, that's also known as 9 on-chip PLL. Is that right? 10 Α. I would characterize it that way, yes. 11 MR. OLIVER: Your Honor, if I could approach 12 the chart I would like to add that to the chart. 13 JUDGE McGUIRE: Yeah, go ahead. 14 BY MR. OLIVER: 15 Okay, Mr. Crisp, before the lunch break we had Q. 16 walked through a number of events in 1993 and 1994. This afternoon I would like to turn now to 1995. Now, 17 in January of 1995, Lester Vincent filed an additional 18 19 preliminary amendment with the Patent & Trademark 20 Office, didn't he? 21 I don't know. Α. 22 Q. Let me see if I can show you a couple of 23 documents that might help to refresh your recollection. 24 May I approach, Your Honor? 25 JUDGE McGUIRE: You may.

1

BY MR. OLIVER:

2 Mr. Crisp, I've handed you a document marked Ο. 3 CX-734. Do you recognize this as a letter from Allen Roberts to Lester Vincent that we looked at this 4 5 morning? 6 Α. Yes, sir, I do. 7 And you recall this morning we looked at the Ο. 8 first paragraph of CX-734? 9 I'm sorry, would you ask the question again? Α. 10 Q. Yes, do you recall that this morning we looked 11 at the first paragraph of CX-734? 12 Α. Yes. 13 Now, let me direct your attention again to the Q. 14 last sentence of that paragraph. "It is possible that 15 some of these enhancements are already in existing 16 applications, but we would like to re-assess the strength of those claims." 17 18 Do you see that? 19 Α. Yes, sir, I do. 20 MR. PERRY: Your Honor, I believe this is one 21 where we had objections to foundation and there was no 22 foundation established that he had ever seen it. So, I 23 don't know if he's going to go any further with this 24 one, but I think we did that this morning. 25 JUDGE McGUIRE: Any response, Mr. Oliver?

MR. OLIVER: Yes, Your Honor, I would like to 1 2 use this together with two additional documents that I have not yet used with Mr. Crisp to see if the three 3 documents together help to refresh his recollection 4 5 with respect to an amendment filed in January 1995. 6 MR. PERRY: Well, Your Honor, on this one, I 7 think we went over this morning, and there was no 8 foundation laid to use it for any purpose, but I quess 9 we'll see what happens. But we've got that objection. 10 JUDGE McGUIRE: Well, I'll give you a chance to 11 go into it, and then, you know, the point is here, 12 please lay a proper foundation, Mr. Oliver, and if not, 13 I'm sure we'll also hear again from opposing counsel. BY MR. OLIVER: 14 15 Q. Thank you, Your Honor. 16 Mr. Crisp, if I could direct your attention to 17 page 2 of CX-734. And item number 6 reads, "Use 18 control registers to contain values which control RAS 19 and CAS access timing." Do you see that? 20 Yes, sir, I see that. Α. 21 MR. OLIVER: May I approach, Your Honor? 22 JUDGE McGUIRE: Yes. 23 BY MR. OLIVER: 24 Mr. Crisp, I've handed you a document marked as 0. 25 CX-750, it's a letter from Allen Roberts to Lester

Vincent dated August 11, 1994, and apart from the different date, the text appears to be identical to CX-734. Do you have any recollection of having seen CX-750 before?

Q. If I could direct your attention to the right-hand side of the page of CX-750. Do you see that item 6.0 there also reads, difficult to make out on the paper copy, but it reads, "Use control registers to contain value which control RAS and CAS access timing."

11 Do you see that?

12 A. Yes, sir, I do.

MR. OLIVER: May I approach, Your Honor?JUDGE McGUIRE: Yes.

15 BY MR. OLIVER:

Q. Mr. Crisp, I've handed you a document marked CX-1470, it bears a caption at the top, in the United States Patent & Trademark Office, about halfway down the page is a caption reading Amendment. The upper left-hand corner of the box, serial number 07/847,961, the date on the right-hand side of the page reads January 6th, 1995.

And if I could direct your attention in
particular to page 6. And particularly to the claim
160 appearing at the bottom of page 6, carrying over to

the top of page 7. And particularly the top of page 7, 1 2 if you see the language in the carry-over part of the claim 160, starting about the third line down, "The 3 semiconductor device storing information received from 4 5 the bus lines in the register during configuration of 6 the semiconductor device and thereafter responding to 7 the transaction requests in the manner specified by the 8 information stored in the register."

9 Do you see that?

10 A. I'm sorry, I was unable to follow where you11 were reading from.

MR. PERRY: Your Honor, can I ask that there be some foundation laid for examining the witness on the document? He's never seen it before, it's a part of the responsibility, something.

16 JUDGE McGUIRE: All right, sustained on that.
17 BY MR. OLIVER:

Q. Mr. Crisp, do you recall having seen CX-1470 inor about January of 1995?

20 A. No.

21 MR. OLIVER: Your Honor, I would nevertheless 22 like to ask a couple of follow-up questions to 23 determine what discussions he may have had relating to 24 this document.

25 JUDGE McGUIRE: All right, go ahead.

1

7

BY MR. OLIVER:

Q. If I could direct your attention back to claim 160, please, beginning at the bottom of page 6 and carrying over to the top of page 7. And if you'll look in particular at the top of page 7, beginning with the third line.

A. May I read the entire claim, please?

8 Q. Certainly.

9 A. Thank you.

Q. And then if you look at the top of page 7, beginning with the third line, "The semiconductor device storing the information received from the bus lines in the register during configuration of the semiconductor device and thereafter responding to transaction requests in the manner specified by the information stored in the register."

17 Do you see that?

18 A. Yes, I do.

Q. And then if I could ask you to turn, please, to page 8 of CX-1470. And if I could ask you to look at claim 164 at the top of the page. And that claim reads, "The semiconductor device of 160, wherein the register is an access-time register and the information is a value indicative of an access time for the semiconductor device, the semiconductor device being

operative to wait for the access time before using the 1 2 bus in response to a transaction request specifying the 3 semiconductor device." 4 Do you see that? 5 Α. Yes, sir, I do. 6 Now, do any of the documents that we have just Ο. 7 looked at refresh your recollection that Mr. Vincent 8 filed an amendment to a pending Rambus patent 9 application in January of 1996? 10 Α. No. 11 Do you recall having any discussions with Ο. 12 anyone else at Rambus with respect to the two claims 13 that we've just looked at in CX-1470 in late 1994 or 14 early 1995? 15 Α. No. 16 Now, Mr. Crisp, you attended the next JEDEC Q. meeting in March of 1995. Is that right? 17 18 I'm not sure of the dates. Α. 19 MR. OLIVER: May I approach, Your Honor? 20 JUDGE McGUIRE: Yes. 21 BY MR. OLIVER: 22 Q. Sorry, Your Honor. 23 Mr. Crisp, I have handed you a document marked as CX-83, these are the minutes of the JC-42.5 24 25 committee meeting. The date here is on March 14, 1995.

Now, if you look on the first page, about three 1 2 quarters of the way down, you see that you attended 3 this meeting? 4 Α. Yes, I see that. 5 Q. Now, you also attended the JC-16 meeting on the 6 same day. Is that right? 7 I'm not sure which day it was, sir. Α. 8 MR. OLIVER: May I approach, Your Honor? 9 JUDGE McGUIRE: Yes. 10 BY MR. OLIVER: Mr. Crisp, I've handed you a document marked as 11 Ο. These are minutes of the JC-16 committee 12 CX-82. meeting, also on March 14, 1995. If you look on the 13 14 left-hand side, about three quarters of the way down, 15 do you see your name on that list? 16 Yes, sir, I do. Α. 17 Now, at the JC-16 committee meeting, you saw a Q. 18 Fujitsu presentation relating to high-speed bus 19 transceiver logic. Is that right? 20 Α. I don't remember. 21 Mr. Crisp, do you have Exhibit 711 in front of Ο. 22 you? 23 Α. CX-711? 24 Ο. Yes. 25 Α. Yes, sir, I do.

Q. If I could ask you to take up that document, 1 2 please. And if I could ask you to turn, please, to 3 page 52. Do you have that page in front of you? 4 Yes, sir, I do. Α. 5 Ο. If I could direct your attention to the bottom 6 of that page, you see that it has the beginning of a new email at the bottom of that page? 7 8 Α. I'm sorry, could you say that again, please? Directing your attention to the bottom of 9 Ο. Yes. 10 page 52. 11 Α. Yes. 12 Q. Specifically the last six lines on that page, 13 do you see that that is the beginning of a new email? 14 Α. Yes, I do. And the date of that email is March 14, 1995? 15 Ο. 16 Yes, that's correct. Α. 17 And then if we look at the top of the following Q. 18 page, we see that this is an email sent from you to the 19 executive group and the business development marketing 20 group at Rambus. 21 Yes, that's correct. Α. 22 Q. And the subject there is the JC-16 and JC-42.5 23 JEDEC meeting. Is that right? 24 Yes, that's correct. Α. 25 If I could ask you to turn, then, to page 54, Q. For The Record, Inc.

please. Now, looking about one-third of the way down 1 2 the page, there's a paragraph that begins, "Fujitsu presented their STBUS material." Do you see that? 3 4 Α. Yes, sir, I do. 5 Ο. Does that refresh your recollection that at 6 this meeting you observed a presentation by Fujitsu on the STBUS material? 7 8 No, sir, it doesn't. Α. 9 Q. If I could direct your attention to the 10 following paragraph, the paragraph begins, "Key to the operation of the STBUS." Do you see that? 11 12 Α. Yes, I do. 13 Now, let me direct your attention to the last Q. 14 sentence of that paragraph that reads, "Taken along 15 with the fact that they rely on an externally bussed 16 reference (this should be anticipated by some of our 17 claims), I would say that the proposal may well 18 infringe our work." Do you see that? Yes, I do. 19 Α. 20 Now, your reference there to an externally Q. 21 bussed reference, that is in reference to an externally 22 bussed reference voltage. Is that right? 23 Α. Yes, that's correct. 24 And then if I could direct your attention Ο. 25 further down the page about three quarters of the way

down the page, the paragraph begins, "So, in summary." 1 2 Α. Yes. 3 That paragraph reads, "So, in summary, I would Q. say that the STBUS scheme is inferior to RSL from a 4 5 power, a noise immunity, and a power supply scaling 6 perspective. In addition, it may well infringe our 7 patents." Do you see that? 8 Α. Yes, I do. 9 Q. Now, you didn't tell anybody at that JEDEC 10 meeting that you thought that proposal would infringe 11 Rambus patents, did you? 12 Α. No, sir, I didn't. 13 You just typed that into your email and sent Q. 14 this to the folks at Rambus but didn't tell anyone at 15 JEDEC. Is that right? 16 MR. PERRY: Misstates the email, Your Honor. 17 JUDGE McGUIRE: Sustained. 18 MR. PERRY: Thank you. BY MR. OLIVER: 19 20 You just typed into your email, "In addition, Q. 21 it may well infringe our patents," but you didn't say anything about that to JEDEC, did you? 22 That's correct. 23 Α. Now, the next day, March 15, you attended the 24 Ο. 25 regularly scheduled meeting of the JC-42.3

1 subcommittee, didn't you?

2	A. I'm not sure about the dates, sir.
3	MR. OLIVER: May I approach, Your Honor?
4	JUDGE McGUIRE: Yes.
5	BY MR. OLIVER:
6	Q. Mr. Crisp, I have handed you a document marked
7	JX-25, these are the meeting minutes of the JC-42.3
8	subcommittee meeting of March 15, 1995, and again if
9	you look at the first page, about two-thirds of the way
10	down, you see your name in that list. Does this
11	refresh your recollection that you attended the 42.3
12	subcommittee meeting on March 15, 1995?
13	A. Yes, it does.
14	Q. Mr. Crisp, this meeting of March 1995 was also
15	the meeting at which Texas Instruments finally resolved
16	the patent issue regarding quad CAS, isn't it?
17	A. I'm not sure.
18	MR. OLIVER: May I have just a moment, please,
19	Your Honor.
20	JUDGE McGUIRE: Yes.
21	MR. PERRY: It's a copying problem, Your Honor,
22	I'm just trying to look at the copies. Do you want to
23	use the RX number?
24	MR. OLIVER: If you have it. I apologize, Your
25	Honor, our copy is out of order. I'm trying to find
	For The Record, Inc.

1 all the pages.

2 JUDGE McGUIRE: That's all right. 3 MR. PERRY: It's RX-545, if you want to pull it up and use this copy for yourself, that's fine. 4 5 MR. OLIVER: Thank you. 6 If we could pull page 5 up on the screen, 7 please. Okay, Mr. Crisp, we've pulled up on the screen 8 what's marked as page 3 of the exhibit's internal page 9 5 to the document. I would like to direct your 10 attention to paragraph 8.3. 11 THE WITNESS: Excuse me, sir, which document is 12 it that we're referring to? BY MR. OLIVER: 13 14 Ο. I'm sorry, the document that you have in your 15 hand is out of order, so if I could ask you to look on 16 the computer screen instead, please. It's much easier for me to read off of the 17 Α. 18 document. I'm having a hard time with my vision at those kind of distances. 19 20 MR. OLIVER: May I approach, Your Honor? 21 JUDGE McGUIRE: Yeah, go ahead. 22 BY MR. OLIVER: If we could perhaps bring up paragraph 8.3. 23 Q. That paragraph reads, "Patent Statement on guad CAS: A 24 25 letter from TI was received at JEDEC complying with the

EIA patent policy. A motion from Toshiba to take the 1 2 ballot JC-42.3-93-82 item 521 off hold, seconded by The vote was unanimous. Toshiba moved to kill 3 VLSI. 4 the council ballot on quad CAS also, seconded by VLSI. 5 Unanimous." 6 Do you see that? 7 Yes, I do. Α. 8 Does this refresh your recollection that this Ο. 9 was a meeting at which Texas Instruments resolved the 10 quad CAS issue? 11 No, sir, it doesn't. Α. 12 Ο. Now, Mr. Crisp, at this meeting, there was also 13 discussion of an AT&T patent that was not reflected in 14 the minutes. Is that right? 15 Α. I don't know. 16 If I could ask you to look, please, at CX-711. Q. 17 Do you still have that in front of you? 18 One moment, please. Yes, I have it. Α. 19 If I could ask you to turn, please, to page 56. Ο. 20 If I could direct your attention to an email beginning 21 about halfway down that page, you recognize this as an 22 email from you to the executive and business 23 development groups dated March 15, 1995? 24 Yes, sir. Α. 25 And the subject is the JC-42 meeting. Is that Q.

1 right?

2 Yes, sir, that's correct. Α. And if I could ask you to turn to page 57, 3 Q. 4 please. And you look almost halfway down the page, 5 there's a paragraph beginning, "During the patent 6 review session." Do you see that? 7 Α. Yes, I do. 8 "During the patent review session, it was noted Ο. 9 that AT&T has a patent on EDO. They are now trying to 10 figure out what the patent covers and what policy AT&T 11 will adopt relative to licensing." Do you see that? 12 Α. Yes, I do. 13 Does that refresh your recollection that at the Q. March 15, 1995 JEDEC meeting, there was a discussion of 14 15 the AT&T patent? 16 No, sir, it doesn't. Α. 17 Now, at this March 1995 JC-42.3 subcommittee Q. 18 meeting, you also observed a presentation by NEC 19 regarding a 256 megabit DRAM, didn't you? 20 I don't remember. Α. 21 MR. OLIVER: Your Honor, if I may have just a 22 moment, we're trying to work around another document 23 problem. I'll see if I can work around it. 24 JUDGE McGUIRE: Okay, go ahead. 25 BY MR. OLIVER:

Q. Mr. Crisp, if I could ask you to take up CX-711 1 2 again, please. And within the email, beginning at page 3 56, I would like to direct your attention to page 58. If you want to take a look at the intervening pages to 4 5 confirm it's part of the same email, please feel free 6 to do so. Do you have page 58 in front of you? 7 Yes, sir, I do. Α. 8 If you look a little bit more than halfway down Ο. 9 the page, it is a paragraph beginning, it's actually 10 immediately under "Meeting Notes," a paragraph begins, "NEC presented a family of 256M device." Do you see 11 12 that? 13 Yes, sir, I do. Α. 14 Ο. If I could then direct your attention about ten 15 or so lines further down to the paragraph beginning 16 "Fujitsu." Do you see that? 17 Yes, sir, I do. Α. 18 That paragraph reads, "Fujitsu (Adrian Q. Cosoroaba)" -- did I read that correctly? 19 20 I think he pronounces his name Cosoroaba. Α. 21 "Fujitsu (Adrian Cosoroaba) suggested that they Ο. will need two clocks (a clock-in and a clock-out) for 22 23 high speed operation. It appears that they are 24 starting to figure out that we have a very good idea 25 with respect to source synchronous clocking. Of course

they may get into patent trouble if they do this." 1 Do you see that? 2 3 Yes, I do. Α. 4 Now, source synchronous clocking was a Q. 5 technology that you had seen presented at JEDEC in 6 1992. Is that right? I'm not sure what the date is, sir. 7 Α. 8 You do recall that technology was discussed Ο. 9 yesterday and seeing that added to our table yesterday? 10 Α. I do remember doing that, yes. 11 And so, what you are then writing to the Ο. 12 executives at Rambus and the business development group 13 in March 15, 1995 is that if Fujitsu goes ahead with 14 this proposal, using source synchronous clocking, they 15 may get into patent trouble with Rambus patents. Is 16 that right? 17 I think that's what I was implying, yes. Α. 18 But again, you didn't say anything about that Q. 19 to the JC-42.3 subcommittee at this time, did you? 20 Α. That's correct. 21 MR. OLIVER: Could I have just a moment, Your 22 Honor? 23 JUDGE McGUIRE: Yeah, go ahead. 24 MR. OLIVER: I am sorry, Your Honor, just one 25 moment, please?

1 JUDGE McGUIRE: Yes.

2 (Brief pause.)

3 MR. OLIVER: May I approach, Your Honor?

4 JUDGE McGUIRE: Yes.

5 BY MR. OLIVER:

Q. Mr. Crisp, I've handed you a document marked as
CX-602. You recognize this as a document that we
looked at this morning?

9 A. Yes, sir, I do.

10 Q. And if I could ask you to turn, please, to page 6. 11 This document is captioned at the top Electronic 12 Industries Association, underneath that there's a word 13 that appears to be slightly cut off on the left-hand 14 side, but appears to be "Invoice for," and after that 15 there's an address, "Rambus, Inc." Do you see that? 16 Yes, I do. Α. 17 And the attention line there is to Richard Q. 18 Crisp. Do you see that?

19 A. Yes, I do.

20 Q. Now, do you recognize this as an invoice for 21 1995 JEDEC dues?

A. I don't really recognize it as such, but that'swhat it looks like it is.

Q. Do you recall receiving an invoice from JEDECfor dues at the beginning of 1995?

1 A. No.

2 Let me direct your attention to a line towards Ο. 3 the upper right-hand side and slightly diagonal to the stamp, "APR 26, paid." Do you see that? 4 5 Α. Yes, I do. 6 Does that refresh your recollection that Rambus Ο. 7 paid its dues for the 1995 membership year on or about 8 April 26 of 1995? 9 Α. No. 10 Q. In any event, you don't recall JEDEC barring 11 you from any meetings or anything between January and 12 April of 1995, do you? 13 No, I don't believe they did. Α. 14 Ο. And you don't recall JEDEC not sending you 15 minutes between January and April of 1995, do you? 16 No, sir. Α. 17 Now, Mr. Crisp, you attended the next JEDEC Q. 18 meeting in May of 1995. Is that right? Yes, I did. 19 Α. 20 I'm sorry, Your Honor, we're MR. OLIVER: 21 having another copying problem, if we could have just a 22 moment. 23 (Brief pause.) 24 MR. OLIVER: Your Honor, may I approach? 25 JUDGE McGUIRE: Yeah, go ahead.

2	Q. Mr. Crisp, I've handed you a document that is
3	marked as CX-88a, it is a copy of the meeting minutes
4	from the May 24, 1995 JC-42.3 subcommittee. If I could
5	direct your attention to the first page, left-hand
6	side, about three quarters of the way down the list,
7	you see your name under the listed members present?
8	A. Yes, sir, I do.
9	Q. Now, at this meeting, Mr. Townsend again made
10	the presentation of the JEDEC patent policy. Is that
11	right?
12	A. I don't remember.
13	Q. If I could direct your attention to page 4.
14	MR. PERRY: Of the exhibit?
15	BY MR. OLIVER:
16	Q. I'm sorry, page 2 of the exhibit, internal page
17	4 of the minutes. And specifically I would like to
18	direct your attention to item 8, it's very difficult to
19	read on the paper, I don't know if the screen will be
20	easier. Paragraph 8 reads, "Patent Presentations: Mr.
21	Townsend presented the patent policies and tracking
22	list (see attachment B). A letter from TI was shown
23	(see attachment C). A new Hitachi patent on Simm
24	mounting was shown (see attachment D). A letter from
25	Sun clarifying their compliance with the patent policy

was shown (see attachment E). Intel noted that the EDO 1 2 patent issue is being worked internally towards a 3 resolution." 4 Do you see that? 5 Α. Yes, sir, I do. 6 Now, at this May 1995 JC-42.3 subcommittee Ο. meeting, there were a series of presentations involving 7 8 SyncLink. Is that correct? 9 Α. Yes, that is correct. 10 Q. Let me digress for a moment to put this into 11 perspective. In 1995 you were involved in licensing 12 negotiations between Rambus and Hyundai. Is that 13 right? 14 Α. Yes, that's correct. 15 Ο. Hyundai is now known as Hynix? 16 Yes, that's correct. Α. 17 And in February of 1995, you had a meeting with Q. 18 various representatives of Hyundai, didn't you? 19 Α. I'm not sure about the dates, sir. 20 MR. OLIVER: May I approach? 21 JUDGE McGUIRE: Yes. 22 BY MR. OLIVER: 23 Mr. Crisp, I've handed you a document marked Q. 24 CX-782, this is an email from you to the executive and 25 business development groups dated February 26, 1995.

The subject is Hyundai meeting 2/24/95. Does this 1 2 refresh your recollection that you met with 3 representatives of Hyundai in February of '96? Excuse me, February of '95? 4 5 Α. No, sir, it doesn't. 6 Let me direct your attention to the first Ο. 7 paragraph, it begins, "I met with G. M. Han. Do you 8 see that? 9 Yes, sir, I do. Α. 10 Q. Do you recall who G. M. Han was? 11 Yes, I do. Α. 12 Ο. Who was he? 13 Α. He was he was a technical marketing manager at 14 Hyundai. 15 Q. Now, G. M. Han said that he thought that 16 Rambus's price for licensing was too high. Is that 17 right? 18 I really don't remember. Α. If I could direct your attention to the third 19 Ο. 20 paragraph of your email, and the fourth line, the 21 sentence reads, "The issue that was raised by G. M. Han 22 was that they felt our price was too high." Do you see 23 that? 24 Yes, sir, I do. Α. 25 And you invited Hyundai to make a Q. For The Record, Inc. Waldorf, Maryland

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counterproposal. Is that right? 1 2 I'm sorry, I couldn't understand your question. Α. 3 Yes, you invited Hyundai to make a Q. 4 counterproposal? 5 Α. Yes, sir, that's right. 6 But you also told them that as the risk Ο. decreased over time, Rambus's price would increase. Is 7 8 that right? 9 Yes, that's what it says here in the note. Α. 10 Q. Now, at the time of these negotiations, your 11 understanding, one impediment to Rambus reaching an 12 agreement with Hyundai was SyncLink. Is that right? 13 I think it was a factor, yes. Α. 14 Ο. Now, you understood that SyncLink referred to a 15 proposal being developed by a group working under the 16 auspices of the IEEE. Is that right? 17 Yes, that's true. Α. 18 And it grew out of earlier work known as Ο. RamLink? 19 20 Α. Yes, I believe that's true. 21 You understood the SyncLink proposal to involve Ο. 22 a packetized system, right? 23 Α. Yes, sir, that was my understanding. 24 And, in fact, the SyncLink proposal was similar Ο. 25 to the Rambus architecture in a number of places?

Yes, sir, that's my opinion. 1 Α. 2 So, you knew that Mr. Farhad Tabrizi from 0. Hyundai was one of the original participants in 3 SyncLink. Is that right? 4 5 Α. Yes, sir. 6 And you were concerned that SyncLink could Ο. 7 potentially be a threat to Rambus, right? 8 Α. Yes, sir, I was. 9 And you advised others within Rambus that one Ο. 10 angle Rambus could take was to address the issue 11 head-on with Hyundai, right? Yes, sir, that's right. 12 Α. 13 And by that you meant that Rambus could tell Q. 14 Hyundai that when SyncLink was finished, they would 15 find themselves part of the intellectual property trap. 16 Is that right? I think I wrote something to that effect. 17 Α. 18 MR. OLIVER: May I approach, Your Honor? 19 JUDGE McGUIRE: Yes. 20 BY MR. OLIVER: 21 Mr. Crisp, I've handed you a document marked as Ο. 22 CX-783. This is an email from you to the executives 23 group and to the development group dated February 26, 24 1995, the subject is Farhad Tabrizi/Hyundai/SyncLink. 25 If you look down to the fifth paragraph, the first

sentence there, "I would not worry at all if it were only RamLink, but SyncLink could potentially prove to be a threat."

4 Do you see that?

5 A. Yes.

Q. And then if I could direct your attention down to the last paragraph on the first page, the first sentence there reads, "One angle we can take is to address the issue head-on with the Korea folks." Do you see that?

11 A. Yes, sir, I do.

And that paragraph continues on to page 2, if I 12 Ο. 13 could ask you to turn, please, to the second page. And 14 if I could direct your attention to the last four lines 15 of this paragraph, actually picking up a couple of 16 words before that, it states, "And then tell them that 17 when they get finished, they will probably find 18 themselves mired in a big intellectual property trap which may result in higher royalty being paid to Rambus 19 20 than if they simply licensed the technology and use it 21 for 100 percent compatible products."

22 Do you see that?

23 A. Yes, sir, I do.

Q. And your reference there to 100 percentcompatible products, again, is a reference to RDRAM.

1 Is that right?

9

2 A. Yes, sir, that's correct. And probably the 3 controllers as well.

Q. So, what you're saying here is that one approach that could be taken was for Rambus to tell Hyundai that if they continue to pursue SyncLink, they might ultimately have to pay Rambus higher royalties than if they were to use RDRAM. Is that right?

A. Yes, sir, that's correct.

Q. And you thought that if Rambus told Hyundai this that that might persuade Hyundai not to pursue SyncLink and instead to take a license from Rambus. Is that right?

14 A. That was my hope, yes.

Q. And you believed that this type of argument might be effective with the Hyundai representatives in Korea?

18 A. I believed that it was possible that it may be19 effective.

20 Q. Down to the third paragraph of page 2 of 21 CX-673. Do you see the sentence that reads, "I do 22 believe that this type of argument may be effective in 23 Korea with the Koreans."

A. I'm sorry, which document are we on now?Q. We're still in CX-783.

I'm sorry, I thought you said 673. 1 Α. 2 I may have misspoken, my apologies. CX-783. Ο. 3 Do you see that? 4 Α. Yes, I do. 5 On page 2, the third paragraph, the first Q. 6 sentence there, "I do believe that this type of argument may be effective in Korea with the Koreans." 7 8 Α. Yes, I see that. 9 But you didn't want to bring up this Ο. 10 intellectual property issue with Hyundai without careful consideration, did you? 11 12 Α. That's right. 13 And that's because you did not want the issue Q. 14 of Rambus intellectual property related to SyncLink all 15 over JEDEC. Is that right? 16 Well, yeah, I think I said that in the Α. 17 paragraph before this. 18 Ο. That's where you're referring to in the 19 beginning of the paragraph 2 on this page? 20 Yes, sir, that's correct. Α. 21 Now, that sentence reads, "I certainly do not Ο. 22 want to bring this intellectual property issue up 23 without careful consideration. I especially do not 24 want it all over JEDEC." And that's the portion that 25 you were referring to?

1

A. Yes, sir, that's correct.

2 Okay, with that background, if we can now turn Ο. 3 back to the May 1995 JC-42.3 subcommittee meeting. And it was at this May 1995 meeting that you saw three 4 5 different presentations at JEDEC relating to SyncLink. 6 Is that right? 7 Yes, sir, that's correct. Α. 8 In effect, three companies had been working on Ο. 9 SyncLink within the IEEE working group who brought that 10 idea to JEDEC. Is that right? 11 I'm sorry, would you ask the question again, Α. 12 the echo was bothering me. 13 Q. Yes, the three different companies who had been 14 working on SyncLink within the IEEE brought that idea to JEDEC and presented to JEDEC. Is that right? 15 16 I don't know which idea you're referring to. Α. 17 SyncLink. Q. 18 I remember that there were some first showings Α. from different companies. 19 20 I'm sorry, Your Honor, I'm still trying to work Q. 21 around the copying problem, if I could have a moment. 22 JUDGE McGUIRE: All right. 23 (Brief pause.) 24 BY MR. OLIVER: 25 Mr. Crisp, if you have the minutes from the May Q.

1 24, 1995 meeting in front of you.

2 A. Yes, sir, I do.

3 If I could ask you to turn, please, to page 57. Q. As you see on the right-hand side of this page, there's 4 5 a caption, Mitsubishi Electric, and then underneath 6 that, "64 Mbit SyncLink SDRAM." Do you see that? 7 It says something close to that. Α. 8 Do you recognize this as one of the Ο. 9 SyncLink-related presentations you saw at this May 1995 10 meeting? 11 A. Yes, sir, I do. 12 Ο. Now, the Mitsubishi presentation relating to 13 SyncLink involved using both edges of the clock for 14 input. Isn't that right? 15 Α. It was actually a reference to a signal they 16 called a strobe. 17 The presentation itself, though, uses the word Q. clock, right? 18 19 I guess it depends on which page of the Α. 20 presentation you look at. 21 Q. If you look at page 58 of the exhibit. On the 22 left-hand side. 23 Α. Yes. 24 Underneath signal name-definition, the Ο. left-hand side reads, "Strobe in." The right-hand 25

side, "Reference clock, both edge for input, positive 1 2 edge for output." Do you see that? 3 Yes, I do. Α. Now, in fact, not long after this JEDEC 4 Ο. 5 meeting, you received an email from a Mr. Don Stark, 6 right? I don't remember. 7 Α. 8 If I could ask you to find CX-711 in front of Ο. you, which again is the 200-page collection of emails. 9 10 If I could ask you to turn to page 156, please. Do you 11 see an email starting on page 156? 12 Α. Yes, sir, I do. 13 Is that email from Don Stark to staff dated Q. 14 July 21, 1995. Do you see that? 15 Α. Yes, sir, I do. 16 Who was Don Stark at this time? Q. 17 Don was an engineer that worked for Rambus. Α. 18 And the subject is SyncLink and Rambus Q. 19 Comparison Article. Do you see that? 20 Yes, sir, I do. Α. 21 Now, if I could ask you to turn, please, to the Ο. 22 next page, page 157. And if I could direct your 23 attention underneath the caption Adoption of Dual Port 24 Organization, the paragraph that follows about eight 25 lines down, there's a line that reads, "For data

1 input."

2

Do you see that?

3 A. Yes.

Q. That reads, "For data input, both the rising
and falling edges of the clock are used." Do you see
that?

7 A. Yes, sir, I do.

Q. Now, we had discussed yesterday a reference in one of your emails to presentations that you had made at JEDEC concerning dual edge output. Do you recall that?

12 A. I have some recollection of the discussion13 yesterday.

Q. And in fact, item number 6 that we added to the table yesterday was dual edge output. Is that right? MR. PERRY: Your Honor, if I could have Mr.

17 Oliver for a second.

18 MR. OLIVER: Your Honor, there may be a --19 either I misspoke or the record is unclear. I was 20 referring to presentations that Mr. Crisp observed at 21 JEDEC.

22 JUDGE McGUIRE: Okay, fine.

23 MR. OLIVER: No reference to any presentation24 that Mr. Crisp had made.

25 MR. PERRY: Thank you.

1 BY MR. OLIVER:

T	BI MR. OLIVER:
2	Q. Do you recall with respect to the presentations
3	that you observed at JEDEC, we added to the table
4	yesterday a reference to dual edge output. Do you
5	recall that?
6	A. Yes, I remember that being added to the board
7	yesterday.
8	Q. And what we're seeing here is dual edge input.
9	Is that right?
10	A. I suppose you could call it that.
11	MR. OLIVER: Your Honor, if I could approach
12	the table.
13	JUDGE McGUIRE: Yes.
14	BY MR. OLIVER:
15	Q. I have now added input underneath or next to
16	output underneath dual edge.
17	Now, at the May 1995 JEDEC meeting, Mr. Tabrizi
18	of Hyundai explained that one of the things behind
19	motivation of SyncLink was to develop a bandwidth
20	device that was presumably free of royalties. Is that
21	right?
22	A. I'm not sure that I remember that statement.
23	Q. If I could ask you to turn within CX-711 to
24	page 68, please. If I could direct your attention to
25	the bottom of page 68, this is another email, this time

1 dated May 24, 1995. Do you see that?

2 A. Yes, sir, I do.

3 If you turn to the top of page 69, you see it's Q. 4 an email from you to the executive group, the business 5 development group and another group, ENGR MGRS. 6 Α. Yes, I do. What does ENGR MGRS stand for? 7 Ο. 8 Engineering managers. Α. 9 So, in other words, this email was sent to the 0. 10 executive group, the business development group and 11 engineering managers. Is that right? 12 Α. Well, it was more than the business development 13 group, it's the business development and marketing 14 group, but yes. 15 And the subject line, "JEDEC 42 meeting notes Q. 16 (DRAM) includes SyncLink info (long report.)" Do you 17 see that? 18 Yes, sir, I do. Α. 19 And if I could ask you to turn, please, to page Ο. 20 72. About one-third of the way down there's a caption 21 that reads, "Hyundai SyncLink Presentation." Do you 22 see that? 23 Α. Yes, sir. 24 And the first sentence under that reads, "Basic Ο. 25 motivation is to develop high density low pin count,

high bandwidth device that is presumably free of 1 2 royalties." Do you see that? 3 Α. Yes, I do. 4 Ο. Their goal was that companies would not have to 5 pay royalties if they followed the standard. Is that 6 right? 7 Was that something in the email? Α. 8 I'm just asking if that was your understanding. Ο. 9 I think that was their goal. Α. 10 Q. Now, at the time of this presentation, Mr. 11 Gordon Kelley asked whether companies had patent issues 12 with material. Is that right? 13 I don't remember precisely. Α. 14 Ο. If I could direct your attention on page 72 of 15 CX-711, about three quarters of the way down the page, 16 the sentence begins, "Gordon Kelley." Do you see that? 17 Yes, sir, I do. Α. 18 "Gordon Kelley asked whether or not any Ο. 19 companies have patent issues with material." Do you 20 see that? 21 Yes, I do. Α. 22 Q. And then if you see in the following paragraph, 23 the last sentence, excuse me, next to the last sentence 24 is another reference, "Kelley asked whether or not HP, 25 Hyundai, Mitsubishi or TI had any patents covering any

of this." Do you see that? 1 I'm sorry, I haven't seen that yet. 2 Α. 3 This is the --Ο. 4 Α. Where was that? 5 Q. The next to the last paragraph. 6 Okay, I see that now. Α. 7 And it reads, "Kelley asked whether or not HP, Q. 8 Hyundai, Mitsubishi or TI had any patents covering any 9 of this. All stated they did not." Do you see that? 10 A. Yes, that's right. 11 Now, at this meeting, Sam Calvin of Intel asked Ο. 12 whether or not there were any Rambus patents covering 13 Is that right? SyncLink. 14 Α. That's correct. 15 Ο. And then Mr. Kelley also followed up on that, 16 didn't he? I'm not sure that I remember. 17 Α. 18 Let me ask you to turn, please, to page 73. Q. 19 Okay. Α. 20 At the top of the page beginning the third Q. 21 line. 22 Α. Yes. 23 "Kelley asked to have us state whether or not Q. 24 Rambus knows of any patents, especially ones we have 25 that may read on SyncLink." Do you see that?

1 A. Yes, I do.

2	Q. And essentially what was happening here is when
3	you did not respond at the meeting itself, Mr. Kelley
4	asked you to go back to Rambus and then report back in
5	September as to whether Rambus knows of any patents
6	that may read on SyncLink. Is that right?
7	A. I think I remember something basically to that
8	effect.
9	Q. And then in your email, back to the executive
10	group, the business development and marketing group,
11	and the engineering managers, you discussed how Rambus
12	may want to proceed with respect to that request. Is
13	that right?
14	A. I maybe you could point that to my email.
15	Q. Well, that's the general gist of what follows
16	in your email. Isn't that right?
17	A. I think there's actually more than more than
18	that in this.
19	Q. Well, let me direct your attention almost
20	two-thirds of the way down page 73.
21	MR. PERRY: Your Honor, if he's going to ask
22	him about the general gist of the email, can I ask that
23	he be given a chance to read the email?
24	JUDGE McGUIRE: Yes, you can. Just give him a
25	chance, Mr. Oliver.

1MR. OLIVER: Yes, thank you, Your Honor.2THE WITNESS: I've read down through it.3BY MR. OLIVER:

Q. Thank you. Again, just to get the context, if we could look back at page 73, at the third line again, "Kelley asked to have us state whether or not Rambus knows of any patents especially ones we have that may read on SyncLink." Do you see that?

9 A. Yes, I do.

Q. And then about two-thirds of the way down the page we pick up with "Intellectual Property." Do you see that?

13 A. Help me find it.

Q. It's almost two-thirds of the way down the page with a line that reads, "As far as intellectual property issues go."

17 A. Yes, I see that.

18 Q. And that reads, "As far as intellectual 19 property issues go, here are a few ideas."

20 A. Yes.

Q. And then it follows with a five specifictechnology list.

A. Yes, that's correct.

Q. And number 1 is "DRAM on a packet oriented bus."

1 Α. Yes. Number 2 is "DRAM with low swing signaling." 2 Ο. 3 Α. Yes. 4 And again, that number 2 is an item that's on Q. 5 our table from yesterday. Is that right? 6 Α. I don't see the table right now. 7 MR. OLIVER: May I approach the table? 8 THE WITNESS: It was something that sounds like 9 that, but I don't remember exactly what you wrote down. 10 JUDGE McGUIRE: What's the question, Mr. 11 Oliver, again? 12 BY MR. OLIVER: 13 The question is number 2, "DRAM with low swing Q. 14 signaling," that's the same as item number 1 we put on 15 the table yesterday. 16 JUDGE McGUIRE: Is that a comment or question? 17 MR. OLIVER: That's a question, Your Honor. 18 JUDGE McGUIRE: All right, Mr. Crisp? 19 THE WITNESS: It sounds very similar. 20 BY MR. OLIVER: 21 Number 3, "DRAM with a two wire initialization Ο. 22 system," excuse me, do you see that? 23 Α. Yes, I do. 24 And number 4, "DRAM with programmable access Ο. latency." Do you see that? 25

1

A. Yes, I do.

2 And again, number 4 on your list is similar to Ο. item number 2 from the table yesterday. Is that right? 3 4 Yes, it's similar to that. Α. 5 Ο. And then number 5 is "DRAM with on chip address 6 space decoding." Do you see that? 7 Α. Yes, I do. 8 Now, what you're talking about in this part of Ο. 9 the email is various aspects of Rambus technology that 10 might apply against SyncLink? 11 Yes, sir, that's correct. Α. 12 Ο. Then after that, you make certain suggestions 13 as to how Rambus may wish to respond to the request of 14 Mr. Kelley. Is that right? 15 Α. I think that's fair. 16 You write, "I think it makes sense to review Ο. 17 our current issued patents and see what we have that 18 may work against them. If it is something really key, 19 then we may want to mention it to Hyundai in our 20 attempts to get negotiation under way again." Now, 21 negotiations with Hyundai, these are the negotiations 22 we referred to taking place in February as well as 23 other times this year? 24 A. Yes, that was a negotiation for the RDRAM 25 license.

Q. And then you write, "If it is not a really key 1 2 issue, such as the initialization issue, then I think 3 it makes no sense to alert them to a potential problem they can easily work around." Do you see that? 4 5 Α. Yes, sir, I do. 6 In other words, what you're saying here is that Ο. 7 if it was not a really key issue, then it made no sense 8 to alert them that Rambus might have patents or patent 9 applications in the area because they didn't have to 10 work around the patents or applications. Isn't that 11 right? 12 Α. Yeah, I think the them in this case is Hyundai, 13 again, this is speaking to us trying to get our 14 negotiations back under way with them. 15 Q. Well, your discussion in this email also 16 pertains to JEDEC, doesn't it? 17 Yeah, there's actually a number of different Α. 18 things that are in this email. 19 And in fact, the very next sentence refers to Q. JEDEC, right? 20 21 That's right. Α. 22 Q. Again, another suggestion that you make to the 23 group at Rambus is that "We may want to walk into the next JEDEC meeting and simply provide a list of patent 24 25 numbers which have issued and say, we are not lawyers, For The Record, Inc.

we will pass no judgment of infringement or 1 2 noninfringement, but here are our issued patent 3 numbers, you decide for yourselves what does and does not infringe." Do you see that? 4 5 A. Yes, I do. 6 And that, in fact, is what Rambus ultimately Ο. 7 did, isn't it? 8 MR. PERRY: Objection, it's vague as to what that is in that sentence. 9 10 MR. OLIVER: That refers to --11 JUDGE McGUIRE: I didn't hear the objection. MR. PERRY: Objection, it's vague as it uses 12 the word "that." 13 14 JUDGE McGUIRE: Sustained. 15 BY MR. OLIVER: 16 Q. The description that you provide in the 17 sentence that I just read is what Rambus did at the 18 time with respect to JEDEC. Is that right? 19 Α. No, we didn't do that, we didn't walk into any 20 meetings and make any statements. 21 Q. You continue in the email, "On the other hand, 22 we may not want to make it easy for all to figure out 23 what we have, especially if nothing looks really strong." Do you see that? 24 25 A. Yes, I do.

Q. And again, the concern there was that if 1 2 nothing was particularly strong, and it was easy for 3 others to figure out what Rambus had, it would be easier to work with. Isn't that right? 4 5 A. It might be right. I mean, it was easy to find 6 out what we had anyhow. You could find the patents on the Worldwide Web. 7 8 Now, you didn't raise any of these issues at Ο. 9 the JEDEC meeting, did you? 10 Α. That's correct. 11 MR. PERRY: Objection, vague as to "these 12 issues." It's vaque. 13 JUDGE McGUIRE: Overruled. I'll hear the 14 question. 15 THE WITNESS: I didn't raise any issues at that 16 particular JEDEC meeting. BY MR. OLIVER: 17 18 Q. And certainly with respect to the intellectual 19 property issues that you list in numbers 1 through 5 on 20 page 73, you did not raise any of those issues at the 21 JEDEC meeting, did you? 22 Α. That's correct, I did not. 23 Q. Now, after this May 1995 JEDEC meeting, you 24 went back to Rambus and you tried to figure out what 25 intellectual property Rambus had that might block

1 SyncLink, didn't you?

2 MR. PERRY: Your Honor, if we are moving to a 3 different subject, I hate to interrupt, but if we could take a break, that would be much appreciated, if this 4 5 is a decent time. 6 MR. OLIVER: Actually this would be a good time for a break, Your Honor. 7 8 JUDGE McGUIRE: All right, let's take a break, 9 ten minutes. Off the record. 10 (Whereupon, there was a recess in the 11 proceedings.) 12 JUDGE McGUIRE: On the record. Mr. Oliver, you 13 may proceed. BY MR. OLIVER: 14 15 Q. Thank you, Your Honor. 16 Mr. Crisp, before the break, we had been discussing the May 1995 JEDEC meeting. Do you recall 17 18 that? 19 Α. Yes, sir, I do. 20 Now, after that meeting, you returned to Rambus Q. 21 and you tried to figure out what intellectual property 22 Rambus had that might block SyncLink. Is that right? 23 Α. I think that's true in part, I was actually 24 doing a general sort of read of it to see what all we 25 actually had.

Q. You started investigating, among other things, 1 2 Rambus's P015D application? 3 Yeah, I'm not really sure what the application Α. 4 numbers were. 5 MR. OLIVER: May I approach, Your Honor? 6 JUDGE McGUIRE: Yes. 7 BY MR. OLIVER: 8 Q. I've handed you a document marked as CX-796. 9 This appears to be a chain of emails that if I could 10 direct your attention to the first to an email 11 appearing on the bottom of the first page and carrying 12 over to the second page, it's text with a number of 13 arrows in front of it, and in italics. Do you 14 recognize this as an email that you sent to vice 15 president Roberts on June 5th, 1995? 16 It looks like I created it, yes. Α. 17 And you see the subject in your email there is Q. 73305.P015D. Do you see that? 18 19 Α. Yes, sir, I do. 20 And does that refresh your recollection that Q. 21 this email was about the patent application that Lester 22 Vincent referred to as the P015D application? 23 Α. Yes, sir, it does. 24 And now, the reason for your renewed interest Ο. in this application was SyncLink. Isn't that right? 25

A. I think that was the primary motivation. That
 and this desire to get this negotiation with Hyundai
 unstalled.

Q. Well, the email here refers only to SyncLink.Isn't that right?

A. Yes, that's correct, because I felt like that
was the necessary thing to do before we spoke with
Hyundai again.

9 Q. So, the last sentence in the first page, the 10 last full sentence that is on the first page reads, 11 "The reason for the renewed interest is SyncLink." Is 12 that correct?

13 A. Yes, that's correct.

14 Q. Now, if you read the email immediately above 15 that, that is the response of vice president Roberts to 16 your email. Is that right?

17 A. It looks that -- it looks like that's what it18 is.

Q. And again, at this point you were trying to understand exactly what Rambus might still be able to claim to ensure that SyncLink coalition's plans would infringe Rambus's IP. Is that right?

A. That was pretty close to right, yes.
Q. And Allen Roberts replied that the lawyers
thought it was impossible to salvage the P015D

application? 1 2 Well, that's what he wrote, yes. Α. 3 And he responded to you that if Rambus wanted Q. to resurrect the P015D, it would have to be a new 4 5 division with new claims, right? 6 Α. It looks like that's what he said. And then Rick Barth responded with an email at 7 Ο. 8 the top of the page. Is that right? 9 Yes, that's correct. Α. 10 Q. And he replied that this would be a lot of 11 work, and would need to be done by someone familiar with both Rambus's patent portfolio and the SyncLink 12 material, right? 13 14 Α. Let me read it first. I'm sorry, would you 15 re-ask the question? 16 Q. Yes, Rick Barth responded that Allen Roberts' proposal would involve a lot of work and would need to 17 18 be done by someone familiar with both Rambus's patent 19 portfolio and the SyncLink material. Is that right? 20 Yes, I think that's basically what he said. Α. 21 Now, you, in turn, responded to these emails by Ο. saying that Rambus should file whatever divisionals 22

23 necessary to get a claim to shoot SyncLink in the head.
24 Isn't that right?

25 A. I'm sorry, I don't -- I don't really remember

1 that.

17

2 MR. OLIVER: May I approach, Your Honor? 3 JUDGE McGUIRE: Yes.

4 BY MR. OLIVER:

Q. Mr. Crisp, I've handed you a document marked as
CX-797. This is an email from you to vice president
Allen Roberts and Rick Barth dated June 6th, 1995. Do
you see that?

9 A. Yes, sir, I do.

Q. And again, if you look at the portion of the lower part of the page with arrows in front of the text and the text in italics, you recognize that as embedded text from the email we looked at a moment ago, CX-796? A. Yes, that looks right.

15 Q. And the new portion of text that you've written 16 in CX-797 is at the top of the page. Is that right?

A. Yes, sir, that's correct.

Q. And you write, beginning the first sentence of the first paragraph, "Well, if it is possible to salvage and get anything that helps us get a claim to shoot SyncLink in the head, we should do it and file whatever divisionals necessary."

Do you see that?

A. Yes, I do.

25 Q. And then you went on to volunteer to take

1 responsibility to do that, right?

2 A. Yes, I did.

6

Q. And you said that you would take ownership of this so we would make the time to do it. Is that right?

A. That's what I said, yes.

Q. And the reason for that is that you thought it was really important to get a firm block for SyncLink. Is that right?

10 A. Well, I made the statement that I think it was 11 really important to do that, but I wouldn't say that 12 that was the primary motivation.

13 Q. You certainly thought it was important to get a 14 firm block for SyncLink, right?

15 A. Yes, that's correct.

Q. And you also believed that what Rambus had filed in 1990 should be able to block them, but you needed to sweat through the details. Is that right?

19 A. Yes, that was my feeling.

20 Q. And by that you meant that the specification in 21 the application that had been filed in 1990 would 22 support the claims to block SyncLink, but someone had 23 to sweat through the details of drafting the relevant 24 claims. Is that right?

25 A. Yeah, that was my belief.

Q. Now, at about that time, you and Reese Brown exchanged a couple of rather testy emails. Is that right?

A. I'm not sure what the time was.

Q. If I could ask you to turn back to CX-711, please. If you could turn, please, to page 79. If I could direct your attention to the bottom of page 79 about seven lines up from the bottom, there's a line that reads, "From," and a number of question marks. Do you see that?

11 A. Yes, I do.

12 Q. And there's no space before that line, but that 13 appears to indicate the start of a new email. Would 14 you agree with that?

15 A. It looks that way, yes.

Q. And looking at the portion of the caption at the bottom of page 79, that looks as though that is an email from you dated June 9, 1995?

19 A. Yes, that's correct.

20 Q. And if you turn, then, to page 80, the top line 21 you said that it's addressed to Mr. Reese Brown.

A. Yes, that's correct.

Q. Now, I won't go into a lot of details, but in essence, you became upset when Mr. Brown posted some material relating to SyncLink on the JEDEC Reflector.

1 Is that right?

JUDGE McGUIRE: All right, again, just for my 2 3 edification, could you tell me who is a Reese Brown, 4 his title? 5 MR. OLIVER: I apologize, Your Honor. 6 JUDGE McGUIRE: I'm sorry, Mr. Crisp, you can 7 answer that if you wish. 8 THE WITNESS: I'm sorry, Your Honor, I didn't 9 realize that you were speaking to me. 10 JUDGE McGUIRE: Well, I wasn't, just generally 11 speaking, I quess, but if you have an answer, you can 12 answer that. 13 THE WITNESS: Yes, Your Honor. Reese Brown, I 14 believe his title was consultant to JEDEC. 15 JUDGE McGUIRE: Okay. Go ahead. So, he was 16 not a paid employee by any other company, he was just 17 an outside I guess consultant to JEDEC. Is that right? 18 I mean, was he part of any other DRAM manufacturer? THE WITNESS: Your Honor, I don't believe that 19 20 he was, I believe that he was just a consultant. Ι 21 believe that he was just an independent consultant, 22 Your Honor. 23 JUDGE McGUIRE: I'm just trying to get that clear for the record. 24 MR. PERRY: If I could help, I think the 25 For The Record, Inc. Waldorf, Maryland

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evidence will show that he had been a representative 1 2 and employee of a company called Unisys up until 1985 3 at which time he retired and then he had become a 4 consultant to JEDEC and attended meetings on behalf of 5 JEDEC. 6 JUDGE McGUIRE: That's in your motion, too. 7 MR. PERRY: As an outside consultant. 8 JUDGE McGUIRE: All right, Mr. Oliver, you may 9 proceed. 10 BY MR. OLIVER: 11 Ο. Thank you, Your Honor. 12 Again, in essence, with respect to the exchange 13 of emails here, you had become upset when Mr. Brown 14 posted some material related to SyncLink on the JEDEC 15 Reflector. Is that right? 16 I think it was fair to say that I took Α. 17 exception to what I considered to be a violation of the 18 policy or the usage of the Reflector by him posting that information on there. 19 20 And the upshot was, in the heat of the moment, Ο. 21 you told Mr. Brown that SyncLink was not a competitor of Rambus because it was not real and because it had a 22 23 number of patent issues associated with it. Right? 24 Α. Yes, that's what I said. 25 Q. That's certainly something you had not planned

1 to do ahead of time. Is that right?

2 A. I think that's fair to say.

Q. Now, when Mr. Brown received this email from
you, he forwarded that to Mr. Hans Wiggers, right?
A. That's my understanding.

Q. And at this time, who was Mr. Hans Wiggers?
A. I'm not sure what you're looking for, could you
8 be a little more specific?

9 Q. Yes. Can you please explain in the context of 10 emails relating to JEDEC and to SyncLink, what role, if 11 any, was played by Mr. Hans Wiggers?

A. Mr. Wiggers was an employee of Hewlett Packard and worked in their memory technology center and he had some development in the development of the Rambus standard and then later on the SyncLink standard, and he also regularly attended JEDEC meetings.

Q. All right, at this time, he was the chairman of the IEEE task group working on the SyncLink proposal, correct?

A. I'm not really sure. It's possible that he was. I thought Mr. Gustafson was, but perhaps it was Mr. Wiggers.

Q. Now, at this time, you understood the IEEE to
have a very different patent policy than JEDEC, right?
A. Yes, that was my understanding.

Q. And you understood that the IEEE did not require disclosure of patents or applications. Is that right?

A. I think that's fair, yes.

Q. Nevertheless, after Mr. Brown forwarded your email to Mr. Wiggers, Mr. Wiggers then wrote to you saying that as chairman of the proposed standard, he took your comment about patent issues very seriously, right?

10 A. Yeah, I don't remember exactly what he said.
11 Q. If I could ask you to turn within CX-711 to
12 page 90, please. And on page 90, looking a little bit
13 more than halfway down, you see again the beginning of
14 a new email there?

15 A. Yes, sir, I see that.

16 Q. And this appears to be an email from you to Mr. 17 Hans Wiggers dated June 10, 1995?

18 A. Yes, that's correct.

Q. If I could ask you to turn to the next page,
 please.

21 A. Yes.

Q. And if I could direct your attention to a paragraph appearing in the middle of the page beginning "Firstly." Do you see that?

A. Yes, I do.

Q. And the third line there reads, "However, as 1 2 chairman of the proposed standard" -- actually, I'm sorry, let me take a step back to clarify this. 3 You see that above that, there's text with arrows above it 4 5 indicating, again, embedded text. Is that right? 6 Α. Yes, I see that. 7 But you recognize the text beginning at the Ο. 8 middle of the page there to be the text sent to you by 9 Mr. Hans Wiggers? 10 Α. I'm sorry, which text was that you're referring 11 to? The text in the middle of page 91 that does not 12 Ο. 13 have any arrows in front of it. 14 Α. Yes, that's correct. 15 And again looking at the text beginning with Ο. 16 the third line of that paragraph. 17 Α. Um-hmm. Yes. It reads, "However, as chairman of the proposed 18 Ο. 19 standard, I have to take your second comment about patent issues very seriously." Do you see that? 20 21 Yes. Α. 22 Q. And again, this was Mr. Wiggers' follow-up 23 after Mr. Brown forwarded your email to him. Is that 24 right? 25 A. Yes, sir, that's correct.

Q. Mr. Wiggers went on to state, "We have held all 1 2 our work group meetings in the public domain and you 3 have attended these meetings I assume in good faith. 4 If you know of any way in which the proposed RamLink 5 standard violates patents held by Rambus or others, 6 then I think you have a moral obligation to bring this to my attention, including information about which 7 8 patents are being violated."

9

Do you see that?

10

A. Yes, sir, I do.

Q. And you understood his reference to RamLink inthat sentence as applying to SyncLink?

A. It wasn't entirely clear. There was certainly
a thinning relationship between RamLink and SyncLink.
Originally SyncLink was fairly tightly connected to
RamLink, but as time went on, they became less so.

Q. But you certainly recognize that there was somerelationship between RamLink and SyncLink?

19 Α. Yes. Well, certainly the people in the working 20 group that was working on RamLink later sort of 21 abandoned that effort and focused on SyncLink. There 22 was a continuity, I guess, of the people doing that. 23 Now, your reaction to receiving this email from Q. 24 Mr. Wiggers was to blame Reese Brown, right? Again, I'm not sure exactly what you mean by 25 Α.

1 that. Perhaps you could be a little clearer.

Q. Well, let me ask you to turn within CX-711 to page 102. And if I could direct your attention to an email appearing at the bottom of page 102. You see there an email from you to R. Brown dated June 13, 1995, Subject: Patent Issues and Name-Calling. Do you see that?

8 A. Yes, I do.

9 Q. And you write there, "Reese, I wanted to tell 10 you that I do not appreciate you forwarding private 11 communication which I made to you to others, including 12 Hans." Do you see that?

A. I see something that says pretty close to whatyou just said.

15 Q. And the reference to Hans in that sentence was 16 Mr. Wiggers, correct?

17 A. That's correct, yes.

Q. And you then went on to state, "Your action is a gross violation of net etiquette and warrants an endless stream of flames." Do you see that?

21 A. Yes, that's right.

Q. In the meanwhile, you told Hans Wiggers that you had nothing to say to him or to the rest of the IEEE committee about Rambus's patent position. Is that right?

I don't recall that, but perhaps there's some 1 Α. 2 email document that you have that can speak to that. 3 Q. Let me ask you to turn to page 103 within If you look at the top of page 103, you see 4 CX-711. 5 that this is an email from Hans Wiggers to you dated 6 June 13, 1995, the Subject: Patent Issues and 7 Name-Calling. Do you see that? 8 Α. Yes, I do. 9 And then if you look, if you will just flip Ο. 10 quickly through pages 103, 104, 105, 106 and 107, 11 you'll see various passages with arrows in front of 12 them, and various other passages without arrows in 13 front of them. Do you see that? 14 Α. Yes, I see a lot of text as you described. 15 And essentially, what is going on here is the Ο. 16 text with arrows in front of them is text that you had 17 written to Mr. Wiggers as embedded in his email and the text without arrows in front of it are his responses to 18 19 you. Is that right? 20 Yes, I believe that's correct. Α. 21 Now, if I could direct your attention to the Ο. 22 top of page 5, please. 23 Α. I'm sorry, page 5? I'm sorry, page 105. 24 0. 25 Α. Thank you.

Q. And I would like to direct your attention to 1 2 the third line at the top of the page, and again, this 3 is in the portion of the text that you wrote. Is that 4 right? 5 Α. Yes. 6 And it reads there, "In the mean time, I have Ο. 7 nothing else to say to you or the rest of the committee 8 about our patent position." Do you see that? 9 Yes, I do. Α. 10 Q. Now, you also told Mr. Wiggers that your email 11 to him was private, and you withheld all copyright for 12 the material. Is that right? 13 Α. Yes, that's correct. 14 Ο. That appears on page 107? 15 Α. Yes. 16 The passage there just above your name, I Q. 17 assume this is the final portion of your email, reads, 18 "Finally, I regard this to be private communication to 19 I claim and withhold all copyrights for the you. 20 This means you are not free to copy and material. 21 distribute it to others without my permission. Please 22 respect this request." 23 Do you see that? Yes, I do. 24 Α. 25 And then Mr. Wiggers agreed to that, didn't he? Q.

1

A. Yes, he did.

Q. The next line, "I agree with this and expect that you will do the same with this communication." Do you see that?

5 A. Yes, he was a gentleman about it.

Q. You then attended the next SyncLink meeting inJune 1995, right?

8 A. I'm not sure what the date was, I know I went 9 to a SyncLink meeting after the May JEDEC meeting.

Q. Let me ask you to turn, please, to page 110 within CX-711. Now, let me direct your attention to the caption beginning about halfway down the page, it appears to be, again, the beginning of a new email. This is an email from you to the executive group and the business development and marketing group at Rambus dated June 15, 1995. Do you see that?

17 A. Yes, sir, I do.

Q. And the subject is RamLink meeting of June 15.Do you see that?

20 A. Yes.

Q. And if you could just flip quickly from page
110 through 114, I just want to confirm that up through
the middle of page 114 is all part of that same email.
A. Yes, sir, that's correct.

25 Q. Now, as you observed and participated in that

SyncLink meeting of June 1995, you became more 1 2 convinced than ever that Rambus had to be absolutely sure that it had SyncLink standard adequately covered 3 4 by patents. Is that right? 5 Α. I seem to remember thinking that at some point. 6 Let me direct your attention to the bottom of Ο. 7 page 113, the top of page 114 of this email. And 8 again, what you're telling Rambus executives and the 9 Rambus business development and marketing group at this 10 time, beginning the very last line of page 113, "It is essential," flipping to page 114, "That we be 11 12 absolutely sure we have the standard adequately covered 13 by patents. I am more convinced of this than ever." Do you see that? 14 Yes, I do. 15 Α. 16 Now, the following month, in July 1995, Mr. Ο. 17 Wiggers contacted you again, right? I don't remember. 18 Α. 19 Let me ask you to turn, please, to page 130 Q. 20 within CX-711. Now, if I could direct your attention 21 to an email appearing at the bottom half of page 130. 22 This is an email from Hans Wiggers dated July 12, 1995, 23 Subject: Patent Issues and Private Email. Do you see 24 that? 25 Α. Yes, at the bottom?

The subject line is the last line. 1 Q. 2 Yes, sir, I do see that. Α. And then turn to page 131, the top of the page, 3 Q. 4 you see that it's addressed to you. 5 Α. Yes, sir, that's correct. 6 Now, Mr. Wiggers informed you that he felt an Ο. obligation to report portions of your earlier 7 8 communication with him to the IEEE standards board. Is 9 that right? 10 Α. Yes, that looks like what he was saying there. 11 Now, you responded to him by saying that you Ο. 12 were disappointed that he was planning to send your 13 private communications to the world, right? 14 Α. I'm sorry, I don't remember saying that. 15 Ο. If I could ask you to turn, please, to page 135 16 in CX-711. 17 I'm sorry, Your Honor, apparently we're having 18 problems with our realtime screen here. 19 (Brief pause.) 20 Thank you, Your Honor. MR. OLIVER: 21 JUDGE McGUIRE: You're welcome. 22 BY MR. OLIVER: 23 Again, Mr. Crisp, if I could direct your Q. attention to page 135 of CX-711, to the email appearing 24 25 at the bottom part of this page. This again is an

email from Mr. Wiggers to you dated July 12, 1995. Is
 that right?
 A. Yes, sir, that's correct.

Q. Then if you turn to page 136 at the top, again,
you see some embedded text with arrows in front of it,
followed by apparently Mr. Wiggers' response to you.
A. Yes, that's correct.

8 Q. And the embedded text was written by you,9 right?

10 A. I believe that's correct.

11 Q. And you told Mr. Wiggers you received the email 12 and you were disappointed that Mr. Wiggers felt a need 13 to send your private comments to the world. Isn't that 14 what you said?

15 A. In so many words.

Q. And then you followed up again by telling Mr.
Wiggers that you had nothing to say to the group,
right?

A. Are you speaking down at the bottom of thepage?

21 Q. Yes, take a look at the bottom of page 136, 22 this is what I believe to be the next email in the 23 chain. Is that right?

A. Yes, it's the next one in this group of emails.Q. Now, this is an email from you to Mr. Wiggers

1 also dated July 12, 1995?

2 A. Yes, sir, that's correct.

Q. And again, you recognize the embedded text at the bottom of page 136 as what we were just looking at a moment ago?

A. Yes, sir, that's right.

6

7 And the new text begins in the first -- excuse Ο. 8 me, the last line of page 136, and that reads, "As I 9 have stated before, I have nothing to say to the group 10 regarding our position. What I say in private 11 correspondence to others is not to be construed as anything like an official position of the company. 12 То 13 interpret it otherwise is a mistake."

14 Do you see that?

15 A. Yes, sir, I do.

16 Q. And that's the response you sent back to Mr.
17 Wiggers, right?

18 A. Yes, that's correct.

19 Q. All right, after this exchange, Mr. Wiggers 20 then offered to summarize in his words your earlier 21 communication, right?

22 A. Yes, he made a proposal to do that.

23 Q. And you responded, "Not acceptable,"

24 exclamation point, right?

A. I'm not sure.

JUDGE McGUIRE: Where is that, Mr. Oliver, that 1 2 you're now quoting from? Is that on the same page? 3 MR. OLIVER: We have now moved on to another page, Your Honor, this is page 142 of CX-711. 4 5 JUDGE McGUIRE: All right. 6 BY MR. OLIVER: 7 Again, let's set the context, looking at the Q. 8 top of page 142, this is now an email from you to Mr. Wiggers dated July 13, 1995, right? 9 10 Α. Yes, sir. 11 That began the first line, "Not acceptable," Ο. exclamation point. "You have just changed 'I' to 'he 12 13 says'." Is that right? 14 A. Yes, that's what I wrote down there. If I 15 could have an opportunity to explain. I think my issue 16 was exactly -- I didn't have a problem with him writing 17 a summary, just I didn't agree with what his summary had said. I wanted it to be factual rather than 18 editorial in nature. 19 20 Q. Well, we'll take a look at what ultimately was 21 written. Now, if I could direct your attention to page 22 145. If you could actually take a look at the 23 intervening pages as well, there's -- there appears to be quite a bit of embedded material here, but I wanted 24 25 to determine that the text at the top of page 145 is

1 part of the same email that starts at page 142.

2 A. Yes, sir, that's correct.

Q. Directing your attention, then, to the top of page 145, and again, this is part of your statement to Mr. Wiggers, right?

A. Yes, that's right.

6

7 Beginning at the third line there, "I have no Ο. 8 obligation under the agreements I have made with anyone 9 to report anything to anyone relative to the Rambus 10 intellectual property or the IEEE working group. There 11 is no charter I have signed, there is no agreement I have signed or anything that obligates me to do 12 13 anything."

14 Do you see that?

15 A. Yes, sir, I do.

Q. Now, the net result was that Mr. Wiggers agreed to add only a very short statement with respect to the Rambus position. Is that right?

A. I don't know if I remember that, but we can
 review it.

Q. If I can ask you to turn to page 146 in CX-711.A. Yes.

Q. And do you see beginning about halfway down
this page, the next email, this one is from Mr. Wiggers
to you dated July 14, 1995. Do you see that?

A. Yes, sir, that's right.
Q. And looking at the text at the very bottom of page 146, "Richard, I will put in a statement, Mr.
Crisp has expressed a personal opinion that the

1

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3

4

6

5 SyncLink proposal may infringe Rambus patents."

Do you see that?

7 A. Yes, sir, I do.

Q. And let's, in fact, take a look at what theminutes from the next SyncLink meeting show.

10 May I approach, Your Honor?

11 JUDGE McGUIRE: Yes.

12 BY MR. OLIVER:

Q. Mr. Crisp, I have handed you a document marked as RX-590, these are the minutes of the IEEE SyncLink meeting of August 21, 1995. Now, if you look at the list of attendees at the top left-hand column, do you see your name there?

18 A. Yes, sir, I do.

Q. So, does that refresh your recollection that
 you were at the SyncLink meeting in August of 1995?
 A. Yes, sir, it does.

Q. If I could then direct your attention to page
I would like to look at a specific paragraph
appearing a little more than halfway down the page,
which reads, "Richard Crisp of Rambus informed us that

in their opinion both RamLink and SyncLink may violate 1 2 Rambus patents that date back as far as 1989. Others commented that the RamLink work was public early enough 3 4 to avoid problems, and thus might invalidate such 5 patents to the same extent that they appear to be 6 violated. However, the resolution of these questions is not a feasible task for this committee, so it must 7 8 continue with the technical work at hand."

9 Do you see that?

10 A. Yes, I do.

Q. Now, the first sentence of that paragraph is the statement that you agreed to allow Mr. Wiggers to make after your email exchange. Is that right? MR. PERRY: Misstates the document, Your Honor.

14 MK. FERRI. MISStates the document, four honor.15 JUDGE McGUIRE: Sustained.

16 BY MR. OLIVER:

17 Mr. Crisp, the first sentence in the paragraph Q. 18 that I just read, let me repeat it, "Richard Crisp, of 19 Rambus, informed us that in their opinion both RamLink 20 and SyncLink may violate Rambus patents that date back 21 as far as 1989." Now, that sentence that appears there 22 is consistent with what you agreed to allow Mr. Wiggers 23 to say after your email exchange. Is that right? 24 No, sir, I think it differs in some material Α. 25 ways.

Q. Well, that sentence does not provide any 1 2 details about Rambus's issued patents, does it? 3 That's correct, it doesn't. Α. 4 Ο. That sentence does not provide any details 5 about Rambus's pending patent applications, does it? 6 Α. No, sir, it doesn't. That sentence does not explain what aspects of 7 Ο. 8 the SyncLink work might infringe Rambus patents, does 9 it? 10 Α. That's correct, it does not. 11 And nothing in that paragraph identifies dual Ο. edge clock technology as a feature of SyncLink that 12 13 might violate Rambus patents, does it? 14 Α. That's correct. 15 Now, five days after the conclusion of your Ο. 16 email exchanges with Mr. Wiggers that we just looked 17 at, you reported to Rambus vice president Allen Roberts, CEO Geoff Tate and vice president David 18 19 Mooring that you had completed a review of several 20 Rambus divisional applications and issued patents, 21 right? 22 Α. I'm not sure about that or the time line. 23 MR. OLIVER: May I approach? 24 JUDGE McGUIRE: Yes. 25 BY MR. OLIVER:

Q. Mr. Crisp, I've handed you a document marked 1 2 CX-824, this is an email from you to vice president 3 Roberts with copies to CEO Geoff Tate and David Mooring dated July 19, 1995. Do you see that? 4 5 Α. Yes, sir, I do. 6 And the subject line is, "I want to talk to Ο. 7 Lester Vincent about some claims." Do you see that? 8 Α. Yes, I do. 9 And you told vice president Roberts, CEO Tate Ο. 10 and vice president Mooring that you had done a review of several Rambus's divisionals and issued patents, and 11 12 can see several opportunities for better describing the 13 patents with some additional claims. Isn't that right? 14 Α. Yes, that's correct. 15 And you were essentially asking for their Ο. 16 permission to speak to Lester Vincent about better 17 describing those claims, right? Yes, that's correct. 18 Α. 19 And vice president Roberts suggested that Ο. 20 before doing so that you speak with Rick Barth. Is 21 that right? 22 Α. I don't remember. 23 MR. OLIVER: May I approach, Your Honor? 24 JUDGE McGUIRE: Yes. 25 BY MR. OLIVER:

Q. Mr. Crisp, I have handed you an email marked 1 2 CX-825. This is an email from vice president Roberts to you, also copying CEO Tate and vice president 3 Mooring dated July 1995. And if you look at the last 4 5 line of Mr. Roberts' text, it reads, "Please talk with 6 Rick about the best way to proceed." 7 Do you see that? 8 Yes, sir, I do. Α. 9 Now, shortly thereafter, you and Rick Barth, in Ο. 10 fact, met with Lester Vincent to discuss claim 11 coverage, right? 12 Α. I don't remember. 13 MR. OLIVER: May I approach, Your Honor? 14 JUDGE McGUIRE: Yes. 15 BY MR. OLIVER: 16 Q. Mr. Crisp, I've handed you a document marked 17 CX-2000, again, it consists of green sheets or billing records of Mr. Lester Vincent. If I could ask you to 18 19 turn, please, to page 12 of CX-2000. Again, the paper 20 copy is rather difficult to read, it might be easier on 21 the computer screen. If you look at one of the entries next to what appears to be August 2, 1995, Vincent, 22 23 "Conference with Richard Crisp and Rick Barth regarding" -- it appears to be "claim coverage, 24 25 including travel to and from meeting."

1

Do you see that?

A. Well, I don't think the date says the year that you indicated. I'm having a hard time with it and here on the screen. '96? This document seems to begin in January of '96.

Q. Let me represent to you that Mr. Vincent's billing records he sometimes carried over entries for a particular month into future months. The relevant date for the entry is the date that appears to the left of the entry itself.

11 MR. PERRY: Well, Your Honor, that doesn't turn 12 a 5 into a 6 or a 6 into a 5. I think this is 13 illegible and I will object to it on that ground.

JUDGE McGUIRE: Well, let's get this clear. I mean, are we on -- is he on the same page that you're on, Mr. Oliver?

MR. OLIVER: I believe he is, Your Honor. JUDGE McGUIRE: And the question is here, we can't, I think, determine if that is a August 2, '95 or August 2, '96. Is that correct? I mean, is that what we're talking about here?

22 MR. OLIVER: Your Honor, that is the issue. We 23 are working with the best copies that we have been 24 provided, and I believe that the context, based both on 25 the emails we just looked at, as well as some

additional billing records we'll look at in just a
 moment, will establish that this is, in fact, August
 1995.

4 JUDGE McGUIRE: Okay, proceed on that basis. 5 BY MR. OLIVER:

Q. In any event, Mr. Crisp, does the entry that we just looked at refresh your recollection in any way as to whether you and Rick Barth met with Lester Vincent in August of 1995?

10 A. No, it doesn't.

Q. Mr. Crisp, in the latter parts of 1995, Lester Vincent was actually working on drafting claims to cover SyncLink. Isn't that right?

14 A. I'm not sure about that. I don't know.

Q. Mr. Crisp, if I could ask you to turn to the next page, to page 13 within CX-2000. If I could direct your attention to a number of entries at the top of this page. The first entry reads, "12/5/95, Vincent, prepare preliminary amendment, including review of SyncLink proposed standard."

21 Do you see that?

22 A. Yes, sir, I do.

Q. Under that, 12/14/95, "Prepare preliminary amendment, including review of SyncLink disclosure." Do you see that?

1 A. Yes, sir, I do.

2 The next entry below that, 12/15/95, "Prepare Ο. 3 amendment, including review of SyncLink disclosure." 4 Do you see that? 5 Α. Yes, sir, I do. 6 Does that refresh your recollection that in the Ο. latter parts of 1995, Lester Vincent was, in fact, 7 8 working on an amendment to add claims to cover SyncLink? 9 10 Α. No, it doesn't. 11 Now, in August 1995, CEO Geoff Tate also Ο. 12 announced internally at Rambus that Rambus was hiring a 13 person by the name of Tony Diepenbrock, right? 14 Α. I don't remember the date. 15 MR. OLIVER: May I approach, Your Honor? 16 JUDGE McGUIRE: Yes. BY MR. OLIVER: 17 18 Mr. Crisp, I've handed you CX-827. Do you Q. 19 recognize this as an email from CEO Geoff Tate to staff 20 dated August 28, 1995? 21 Yes, sir, I do. Α. 22 Q. And if I direct your attention to the third 23 paragraph, he writes, "But we have not had anyone 24 focused full time on our strategy for protecting IP, 25 analyzing our IP position versus competitive

1 technologies, et cetera."

2 Do you see that?

3 A. Yes, sir, I do.

Q. And the next paragraph he writes, "To fill this
gap, we are hiring Tony Diepenbrock." Do you see that?
A. Yes, sir.

7 Q. Now, Tony Diepenbrock is Rambus's first

8 in-house lawyer. Is that right?

9 A. Yes, that's correct.

Q. And Mr. Tate described Mr. Diepenbrock's responsibilities including analysis of Rambus's IP portfolio versus competitive technologies. Is that right?

14 A. Among other things.

15 Q. Now, in September of 1995 you had the next 16 regularly scheduled meeting for the JC-42.3

17 subcommittee. Is that right?

18 A. Yes, that's right.

19 MR. OLIVER: May I approach, Your Honor?

20 JUDGE McGUIRE: Yes.

21 BY MR. OLIVER:

Q. Mr. Crisp, I've handed you a document marked
JX-27, these are the minutes of the JC-42.3
subcommittee meeting of September 1995. Now, at this

25 meeting again, the JEDEC patent policy was presented,

1 right?

2 I don't remember. Α. 3 If I could direct your attention to page 4, to Q. 4 item 6 at the top of that page. That reads, "Patent 5 Policies: Patent policies are shown as attachment B. 6 SyncLink/RamLink patents were discussed." Do you see 7 that? 8 Α. Yes, I do. 9 Now, at this meeting, you presented Rambus's Ο. 10 position with respect to Mr. Kelley's request in the 11 May 1995 meeting to determine whether Rambus knew of any patents applying to SyncLink. Is that right? 12 13 Α. Yes. 14 Ο. And the response that you provided was to show 15 the 42.3 subcommittee a letter, right? 16 Yes, that's what I recall. Α. 17 If I could ask you to turn, please, to page 26 Q. within JX-27. Page 26 has a handwritten note in the 18 upper right-hand corner, attachment C, underneath that 19 20 facsimile sheet, and the date September 11, 1995. This 21 is, in fact, the letter that you presented to the 42.3 22 subcommittee, right? 23 Α. Yes, sir, that's correct. 24 And this letter is in the form of a fax 0. 25 addressed to you because it was sent to your hotel room

1 immediately before the meeting, right?

A. Yes, that's correct, I didn't have a printerwith me.

Q. Now, Rambus vice president David Mooring was
5 involved in editing this letter, right?

A. Yes, sir, that's correct.

Q. And the letter begins, I'm reading now in the text box under message, "At the last JEDEC meeting it was noted that the subject of the SyncLink DRAM proposal bears a strong resemblance to Rambus DRAMs and so I was asked to make a comment about the Rambus intellectual property position as it may relate to the SyncLink proposal."

14 Do you see that?

15 A. Yes, sir.

6

Q. And then if I could direct your attention down to the concluding paragraph at the bottom of the page -- I'm sorry, before we get there, let me direct your attention to paragraph third from the last paragraph that begins, "Additionally." Do you see that?

21 A. Yes, I do.

Q. This paragraph states, "Additionally, SyncLink
is being sponsored by an organization with a less
stringent patent policy than JEDEC. Under the bylaws
of the IEEE working groups, attendees represent

themselves only, not their employers. Furthermore, 1 2 they are free to patent whatever they desire, and are not bound to relinguish any of their rights to the 3 4 patents by presenting their ideas for standardization." 5 Do you see that? 6 Α. Yes, I do. 7 And then in the concluding paragraph, the Ο. 8 letter states, "At this time, Rambus elects to not make 9 a specific comment on our intellectual property 10 position relative to the SyncLink proposal." Do you 11 see that? 12 A. Yes, sir. 13 Now, would it be fair to say that this letter Q. 14 didn't go over very well at the 42.3 subcommittee 15 meeting? 16 That's kind of a subjective call. Α. 17 Well, the Rambus statements certainly generated Q. 18 quite a bit of discussion, didn't it? 19 That's vague as to guite a bit of MR. PERRY: 20 discussion, Your Honor. Is it five minutes or 30 21 minutes? 22 MR. OLIVER: I withdraw the question, Your 23 Honor. 24 JUDGE McGUIRE: Restate it. 25 BY MR. OLIVER:

Q. Mr. Crisp, the letter generated discussion at 1 2 Rambus. Is that right? 3 MR. PERRY: At JEDEC. 4 BY MR. OLIVER: 5 Q. Excuse me, let me try again. The Rambus letter 6 generated discussion at JEDEC. Is that right? 7 I remember at least one comment. Α. 8 Well, Mr. Gordon Kelley, the chairman, said Ο. 9 that he heard a lot of words, but didn't hear anything 10 said. Isn't that right? 11 A. Yes, that's the comment that I recall hearing 12 at the time. 13 Q. Let me ask you to turn, please, to CX-711 at 14 page 166. If I could direct your attention to an email beginning the middle of page 166. This is an email 15 16 from you to Allen Roberts dated September 11, 1995. Is 17 that right? I'm sorry, I'm not following you. 18 Α. 19 Are you within CX-711? Ο. 20 Yes, sir, I am. Α. 21 And at page 166? Ο. 22 Α. Yes, I am there, too. 23 There is an email beginning about halfway down Q. 24 the page from, and question marks, and September 11, 1995. 25

1

A. Yes, I see that.

2 Q. Now, that email is -- that's an email to you 3 from Allen Roberts. Is that right?

A. Yes, now I'm with you.

Q. Okay. And again, if you look at the three lines beginning at the bottom of page 166 and then continuing on in the following pages, there are a number of lines with arrows in front of them. Do you see that?

10 A. Yes.

11 Q. And again, that is embedded text written by 12 you. Is that right?

13 A. Yes, sir, that's correct.

14 Q. And that embedded text represents your email 15 summarizing the JEDEC meeting. Is that right?

16 A. Yes, sir.

17 Q. The last three lines on page 166 read, "The 18 patent statement --"

JUDGE McGUIRE: All right, I'm having trouble because your colleague is not inputting this at the same time that you're asking your questions. I want to be able to see it on the screen. So, if we could get a better coordination on how you're asking these questions and have him -- have this blown up at the same time so I can get a feel, I would appreciate it.

1 MR. OLIVER: I apologize, Your Honor. 2 JUDGE McGUIRE: No, that's all right. There is 3 no apology due, I just want to so it's clear to me, and 4 before you start the I quess quotations that I'm seeing 5 what is actually in this email. 6 MR. OLIVER: Okay, I'll give my colleagues a 7 bit more time, thank you, Your Honor. 8 JUDGE McGUIRE: Okay. 9 BY MR. OLIVER: 10 If I could direct your attention to the last Q. 11 three lines on page 166. The text there reads, "The 12 patent statement was read and generated some 13 discussion. Basically, Kelley of IBM said that he 14 heard a lot of words, but did not hear anything said." 15 Do you see that? 16 Yes, sir, I do. Α. 17 Now, following that, you essentially tried to Q. 18 diffuse the tension within the meeting. Isn't that 19 right? 20 I don't know that I would characterize it that Α. 21 way. 22 Q. Well, you resorted to humor to keep things 23 civil? 24 Well, I did inject a humorous comment. Α. 25 Q. You joked about Washington, DC in order to help

1 keep things civil. Is that right?

2 A. Yes, that's correct.

3 JUDGE McGUIRE: Can we see that comment? MR. OLIVER: Unfortunately the original comment 4 5 is not reflected in the email, Your Honor. 6 MR. PERRY: It's right there. JUDGE McGUIRE: Can we go off the record? 7 8 MR. PERRY: It's right here on the screen. 9 MR. OLIVER: Well, we can. 10 JUDGE McGUIRE: No, I'm kidding, go ahead. 11 BY MR. OLIVER: 12 Ο. But during this discussion, Mr. Crisp, you also 13 reminded the 42.3 committee that Rambus had reported a 14 patent list to JEDEC in the past, right? 15 A. Yeah, I knew we weren't in the -- under any 16 obligation to do so, but I did tell them that we had 17 reported a patent before, yes. 18 Q. You're referring to your disclosure of the '703 19 patent in September 1993, right? 20 Yes, that's correct. Α. 21 And your statement that you were under no Ο. 22 obligation to do so meant that you were under no 23 obligation to disclose the '703 patent in September 24 1993. Is that right? 25 Α. That's correct.

Q. Is that because that patent is not related to
 the JEDEC work. Is that right?

A. Actually, I think the reason was is because it didn't -- it wasn't in connection with any ballot proposal that was going out, nor was it -- were we a presenter for anything.

Q. Now, when you raised the issue of the
disclosure of the '703 patent in the September 1995
meeting, you were implying to members that Rambus was
observing the JEDEC disclosure rules, right?

11 A. No, I don't think I was saying that at all, I 12 just think I was saying that we had disclosed the 13 patent, at least a patent, and I knew that others had 14 not disclosed any patents.

Q. But you were saying that that put you in the category of JEDEC members who had disclosed patents, right?

18 A. Yes, that's correct.

19 Q. And that put you in the category of JEDEC 20 members who were complying with JEDEC disclosure 21 policy, right?

22 A. I don't think I said that.

23 Q. Well, that was certainly your implication, 24 wasn't it?

A. It wasn't my intention to imply that.

Q. Now, you never told JEDEC what you had told
 Reese Brown, did you?

3 A. Yes, that's correct.

Q. And the statement that appeared in SyncLink was
never -- or that you never conveyed that statement to
JEDEC, did you?

7 A. That's also correct.

Q. So, even though Hans Wiggers eventually got you to agree to allow him to inform SyncLink that you thought SyncLink might involve -- might violate Rambus patents, you never told JEDEC that, did you?

A. That's right. JEDEC was looking for an
official comment from Rambus, and I was giving my
personal opinion at the SyncLink meeting.

MR. OLIVER: Your Honor, I move to strikeeverything after no as nonresponsive.

17 JUDGE McGUIRE: Sustained.

18 BY MR. OLIVER:

Q. And the reason you didn't inform JEDEC was that as you wrote in your February 1995 email we looked at earlier, you didn't want word of Rambus patents all over JEDEC. Isn't that right?

23 A. No, sir, that's not the reason.

Q. Well, Mr. Crisp, you even used threats ofcopyrights to extract a promise from Hans Wiggers not

1 to pass on any information he received to other people.
2 Isn't that right?

3 Could you ask the question again, please? Α. Yes. You used threats of copyright to extract 4 Ο. 5 a promise from Hans Wiggers not to pass on your 6 comments to any other people. Isn't that right? I did remind him that the emails that I had 7 Α. 8 sent to him were copyrighted and I asked him to not 9 distribute it to other people without my permission, 10 that's correct. 11 And after some exchange of emails, he agreed to Ο. 12 that. Is that right? 13 Yes, that's correct. Α. 14 As a result of that, Mr. Wiggers, in fact, even Ο. 15 sent a letter to JEDEC clarifying that his earlier 16 comments were his own personal opinion. Isn't that 17 right? 18 It was not a result of that, sir. Α. 19 Well, in any event, Mr. Wiggers never did pass Q. 20 on the comments that Mr. Brown passed on to him to 21 JEDEC, did he? 22 Α. I don't know what Mr. Wiggers did and didn't do, other than submit that letter that you just 23 24 referenced. 25 Q. Well, ultimately, you were successful in not

1 disclosing much information to JEDEC. Isn't that
2 right?

A. I didn't disclose any patent applications or any patents to JEDEC while I was a member. Other than the '703 patent.

Q. Well, you never told the JC-42.3 subcommittee
that you were working to help identify claims that
might apply to SyncLink, did you?

A. That's correct, I didn't.

10 Q. You didn't tell the JC-42.3 subcommittee that 11 you had met with patent counsel on that subject, did 12 you?

A. Yeah, that's right, I don't think I had anyobligation to do so.

Q. You didn't tell the 42.3 subcommittee that you were working to draft claims to shoot SyncLink in the head, did you?

18 A. That's correct.

9

19 Q. You made no statement to the 42.3 subcommittee 20 that you believed that SyncLink would violate Rambus 21 patents. Isn't that right?

22 A. That's correct.

Q. And you made no statement to the 42.3
subcommittee to identify what particular aspects of the
SyncLink technology might infringe Rambus intellectual

1 property. Isn't that right?

2 A. That's correct.

Q. And you certainly did not identify SyncLink's dual edge clocking feature as a feature that might violate Rambus intellectual property. Isn't that right?

7 A. That's correct.

Q. Now, despite your lack of disclosure to JEDEC,9 there was still a reaction, right?

A. Maybe you could be a little bit more specificabout what you mean by reaction.

Q. Well, a couple of days later, a gentleman by the name of David Barnum at Augat told you that the reason that there would not be a second showing of SyncLink at JEDEC was because Rambus cast doubt over the patent issue. Is that right?

A. I'm not sure that I remember that, as far as the time frame goes. I remember something about that conversation, but I don't know when it was.

20 Q. If I could ask you to turn in CX-711 to page 21 171. Do you see about one quarter of the way down the 22 beginning of a new email from you to the executive 23 group, the business development group, engineering 24 managers and Mr. Diepenbrock dated September 13, 1995? 25 A. Yes, I see that.

Q. If I could direct your attention about three 1 2 quarters of the way down the page, there's a line beginning "Off-line, Dave Barnum." Do you see that? 3 4 Α. Yes, I do. 5 Ο. And the statement there reads, "Off-line, Dave 6 Barnum of Augat," I'll skip to the next line, "said 7 that he thinks that the reason there will not be second 8 showings is that we have cast doubt over the patent 9 issue." Do you see that? 10 A. Yes, I do. And in fact, JEDEC never did 11 standardize the SyncLink architecture, did it? MR. PERRY: Vague as to SyncLink architecture, 12 13 Your Honor, and misstates the evidence that's in this 14 case. JUDGE McGUIRE: Sustained and restate. 15 16 BY MR. OLIVER: 17 Thank you, Your Honor. Q. 18 JEDEC never did standardize the proposals made 19 at the May 1995 meeting, did it? 20 MR. PERRY: Compound, Your Honor, there were 21 three proposals. 22 JUDGE McGUIRE: Sustained. 23 BY MR. OLIVER: Mr. Crisp, JEDEC never did standardize the 24 0. 25 proposal made by Hyundai at the May 1995 meeting, did For The Record, Inc.

1 it?

6

2 A. I don't know.

Q. Now, Mr. Crisp, you were also involved in license negotiations with Hyundai during the course of 1995, right?

A. Yes, that's correct.

Q. And after the events of June through September 1995 that we've been looking at, Hyundai changed its negotiating position, didn't it?

10 A. I'm not sure that I remember. I know we 11 eventually got a license with them, but I'm not sure 12 exactly what the time frame was on that.

Q. Well, after this, Hyundai insisted that any license agreement that they have with Rambus provided rights not only with respect to RDRAM, but also with respect to SyncLink, right?

A. I'm sorry, could you ask the question again? Icouldn't hear you.

19 Q. Yes. Hyundai insisted that any license 20 agreement provide rights not only with respect to 21 RDRAM, but also with respect to SyncLink. Isn't that 22 right?

A. To SyncLink? Is that what you said, sir?Q. Yes.

25 A. I don't recall that.

Q. Well, you recall that the final agreement 1 2 between Rambus and Hyundai contained a provision granting Hyundai rights beyond RDRAM. Is that right? 3 4 Α. I don't think it was guite that simple. 5 Ο. Would it be fair to say that the license 6 agreement between Rambus and Hyundai included a so-called other DRAM provision? 7 8 I think it had a provision that said that we Α. 9 would agree to negotiate in good faith for other kinds 10 of DRAMs, if such a need arose. But I don't remember 11 precisely, but that's my recollection. 12 MR. OLIVER: May I approach, Your Honor? 13 JUDGE McGUIRE: You may. 14 BY MR. OLIVER: 15 Q. Mr. Crisp, I've handed you a document marked 16 CX-1599, the front page reads, "Semiconductor 17 Technology License Agreement between Hyundai Electronics Industries and Rambus." Do you see that? 18 19 Α. Yes, sir, I do. 20 Now, if I could ask you to turn, please, to Q. 21 page 3. If I could direct your attention to paragraph 1.5. You see 1.5 provides, "Other DRAM. Other DRAM 22 23 means each DRAM which incorporates part of the Rambus interface technology but is not compatible with the 24 25 Rambus interface specification." Do you see that?

A. Yes, that's the definition at the beginning of 1 2 the contract. 3 So, you recognize that as being a DRAM other Q. 4 than an RDRAM. Is that right? 5 Α. That's my interpretation. Yes, that's right. 6 Q. If I could then ask you to turn, please, to 7 page 12. 8 MR. PERRY: Can we take that down for a second, 9 please. I just consulted with Hynix's counsel, since 10 this is their agreement as well. Go ahead. 11 JUDGE McGUIRE: All right, proceed, Mr. Oliver. 12 BY MR. OLIVER: 13 If I could then direct your attention to page Q. 14 12, paragraph 5.3. Do you see that? 15 Α. Yes. 16 And under that, if you would look at 5.3(a)(1), Q. 17 you'll see it sets out royalty rates with respect to 18 Rambus memories. Do you see that? 19 Α. I'm sorry, I'm not following you. 20 Under 5.3, Royalties, subsection (a) Royalty Q. 21 Rate. 22 Α. Yes, I see that. 23 Q. And about three lines below that (i), "With 24 respect to Rambus memories, the royalty rate shall be as follows." Do you see that? 25

1 A. Yes, I do.

4

2 Q. And those are, then, the royalty rates for the 3 RDRAMs? Is that right?

A. Yes, that's my understanding.

5 Q. And then two lines below that, (ii) is with 6 respect to other DRAMs. Do you see that?

7 A. Yes, I do.

Q. And then that's then the royalty rate withrespect to DRAMs other than RDRAMs. Do you see that?

10 A. Yes, I see that.

Q. Does this refresh your recollection that in the licensing agreement signed between Rambus and Hyundai, Rambus granted Hyundai rights to use Rambus

14 technologies in DRAMs other than RDRAMs?

15 A. Yes, it does.

Q. And in fact, in this agreement, Rambus grantedHyundai rights to use Rambus technologies in SDRAMs.

18 Isn't that right?

MR. PERRY: Objection, Your Honor, calls for a legal conclusion and there's no foundation that he was involved in that.

22 JUDGE McGUIRE: Sustained.

MR. OLIVER: Your Honor, he has testified that
he has been involved in negotiating during --

25 JUDGE McGUIRE: No, it still calls for a legal

1 conclusion.

2 MR. OLIVER: Okay.

3 Mr. Crisp, we can return to the September 1995 JC-42.3 subcommittee meeting. Do you still have those 4 5 minutes in front of you? 6 THE WITNESS: Yes, sir, I do. 7 BY MR. OLIVER: 8 Now, at the September 1995 JEDEC meeting, there Q. 9 was more discussion of the next generation SDRAM 10 standard, right? I don't recall. 11 Α. 12 Ο. If I could ask you to turn within JX-27 to page 13 14, please. And if I could direct your attention on 14 page 14 to paragraph appearing a little bit more than 15 halfway down beginning, "What is next." Do you see 16 that? 17 Α. Yes, I do. 18 "What is next? Higher frequency and lower Q. 19 power devices. Therefore, the next generation issues that need to be addressed were stated." It has a list 20 21 of features. Do you see that? 22 Α. Yes, sir. 23 And do you see that item number 7 on that list Q. is "Output Clock?" 24 25 A. Yes, I do.

Q. Now, if I can direct your attention to the 1 2 paragraph following that list of features, you see the 3 statement, "A survey ballot was requested on the next 4 generation issues stated above. Mr. Allan agreed to 5 prepare the survey." Do you see that? 6 Α. Yes, that's right. Now, does this refresh your recollection that 7 Ο. 8 at this September 1995 meeting the committee decided to 9 issue a survey ballot with respect to features of the 10 next generation SDRAM standard? 11 Α. Yes, it does. 12 Ο. Now, Mr. Crisp, not long after the September 13 1995 JEDEC meeting, Rambus's new in-house counsel, Tony 14 Diepenbrock, brought up his concerns about equitable 15 estoppel to you, right? 16 I'm not sure exactly what the time frame was, Α. but I do remember we had some discussion about that. 17 18 MR. OLIVER: May I approach, Your Honor? 19 JUDGE McGUIRE: Yes. 20 BY MR. OLIVER: 21 Mr. Crisp, I've handed you a document marked Ο. 22 CX-837. This is an email from you to the executive 23 group, and also to Tony Diepenbrock, dated September 24 23, 1995. And if you see the first line, "One other 25 thought I had regarding Tony's worst case scenario

1 regarding estoppel." Do you see that?

2 A. Yes, sir, I do.

3 Now, does this refresh your recollection that Ο. 4 some time during September 1995 Mr. Diepenbrock brought 5 up with you his concerns about equitable estoppel? 6 Α. I think it does. I don't really remember 7 precisely when, but it must have been during September. 8 Well, Mr. Diepenbrock started with Rambus in Ο. 9 September of 1995. Is that right? 10 Α. That's why I say that. Because this was dated 11 in September and I believe he began in early September. 12 So, I quess it doesn't really refresh my recollection, 13 but I think this happened. 14 Ο. Well, let's proceed and see how much about this 15 you do remember. At the time, you recognized that 16 equitable estoppel could perhaps cause Rambus to lose 17 the ability to enforce its patent against SyncLink. Isn't that right? 18 19 Α. I think that was a concern I had, yes. 20 Q. Now, you also knew that when Rambus joined 21 JEDEC, a group of individuals within Rambus decided that Rambus would not talk about potential for 22 23 infringement of patents that did not issue, right? 24 Yes, I believe that's correct. Α. 25 And you suggested that Rambus re-evaluate its Q.

position relative to what it decided to disclose and what to keep quiet about, right?

3 A. I don't remember.

Q. Let me ask you to turn to the second page of CX-837. If I could direct your attention to the third full paragraph appearing on that page, it begins, "It seems to me." Do you see that?

8 A. Yes, I do.

9 Q. It reads, "It seems to me that we should 10 re-evaluate our position relative to what we decide to 11 keep quiet about, and what we say we have." Do you see 12 that?

13 A. Yes, I do.

Q. Now, you also suggested that Rambus redouble its efforts to get the necessary amendments completed and the new claims added to its pending patent applications, right?

A. Yes, there were some claims that I believe that I thought that we were working on and I thought those needed to get completed if they weren't.

21 Q. But you said that you wanted to make damn sure 22 that the ship was water tight before you get too far 23 out to sea, right?

A. Yes, that's correct.

25 MR. OLIVER: Your Honor, I was going to suggest

that we have a very short break here, I might be able 1 2 to skip over some material in the interest of time. JUDGE McGUIRE: Let's take a five-minute break, 3 4 then. Off the record. 5 (Whereupon, there was a brief recess in the 6 proceedings.) 7 JUDGE McGUIRE: On the record. All right, Mr. 8 Oliver, you may proceed. MR. OLIVER: May I approach, Your Honor? 9 10 JUDGE McGUIRE: Yes. 11 BY MR. OLIVER: 12 Ο. Mr. Crisp, I've handed you a document marked 13 CX-836, it's an email from you to Rick Barth with a CC 14 to vice president Roberts, the executive group, Tony 15 Diepenbrock and Rick Barth. And I would like to direct 16 your attention to the last three lines, again, this is 17 the tail end of an email exchange and I'm trying to 18 save time, I'm not going into the entire email exchange 19 at this point, but you recognize in the last three 20 lines that you were "pinging folks to get them thinking 21 about low-level element details regarding 22 implementation of our DLL/PLLs and the IP patent 23 protection that we have in that area." 24 Do you see that? Yes, I do. 25 Α.

Q. And do you recall that you were pinging folks 1 2 to get them thinking about this in September of 1995? 3 Yes, this is basically the nuts and bolts of Α. 4 how we design the PLL circuits, so I think that's 5 important to the context of this. 6 You see that it appears on the subject line Ο. 7 regarding "Let the IP war begin." Do you see that? 8 Α. Yes, I do. 9 Now, in October of 1995, Billy Garrett received Ο. 10 the survey ballot issued by JEDEC, right? I don't know. 11 Α. 12 MR. OLIVER: May I approach, Your Honor? 13 JUDGE McGUIRE: Yes. 14 BY MR. OLIVER: 15 Q. Mr. Crisp, I've handed you a document marked 16 CX-260, it bears the caption on the top JEDEC, a few 17 lines under that, "Committee Survey Ballot," a date 18 towards the upper right-hand corner, October 30, 1995, 19 with some handwriting in the upper right-hand corner 20 reading "Copy BD Market from BWG." Now, BWG were the 21 initials of Billy Garrett. Is that right? 22 Α. Yes, sir, that's correct. 23 And CX-260 was the survey ballot that the JEDEC Q. 42.3 subcommittee meeting decided to submit during the 24 25 September 1995 meeting. Is that correct?

1 A. Yes.

2 And Billy Garrett forwarded this ballot to the Ο. 3 entire business development group. Is that right? 4 Α. Yes, the business development and marketing 5 groups. 6 And you were part of those groups at that time? Ο. 7 Yes, that's correct. Α. 8 Now, the survey ballot asked the members Ο. 9 whether they believed it's important to standardize CAS 10 latency beyond the CAS latency 4. Is that right? I don't know. 11 Α. 12 Ο. Let me ask you to turn to page 9. Do you see 13 under the caption 3.6, "Increased CAS Latency," there 14 are a series of three questions. Do you see that? 15 Yes, sir, I do. Α. 16 3.6-1 reads, "Does your company believe it is Ο. 17 important to standardize CAS latency beyond a CAS 18 latency 4?" 19 Α. Was there a question? 20 Yes, do you see that? Q. 21 Yes, sir, I do see that. Α. 22 Q. Now, this ballot also asked members whether 23 they believed it was important that -- or excuse me, 24 whether they believed future generations of SDRAMs 25 could benefit from using both edges of the clock for

1 sampling inputs?

2 A. I don't know.

Q. Let me ask you to turn, please, to page 12. And on page 12 if I could direct your attention to question 3.9-4 and ask if that refreshes your recollection that the ballot asked companies whether they believe that future generations of SDRAMs could benefit from using both edges of the clock for sampling inputs?

10 A. I've seen that, yes.

Q. Over on the page, let me also direct your attention to 3.9-1, and ask whether that refreshes your recollection that the survey ballot asks companies whether they believe that on-chip PLL or DLL is important to reduce the access time from the clock for future generations of SDRAMs?

17

A. No, it doesn't refresh my recollection.

18 Was your previous question regarding 3.9-4?
19 Was that about refreshing my recollection or did I see
20 it? I want to make sure I answered the right question.

21 Q. Why don't I simply ask a new question and make 22 sure the record is clear. Does question 3.9-4 refresh 23 your recollection that the ballots asked companies 24 whether future generations of SDRAMs would benefit from 25 using both edges of the clock?

A. My answer was no. I thought you were asking me 1 2 if I saw it. 3 Q. You do see it but it does not refresh your recollection? 4 5 Α. I do see it, it does not refresh my 6 recollection. 7 Do you see in 3.9-1 there's a reference to PLL Ο. 8 or DLL. Do you see that? 9 I'm sorry, could you say that again? Α. 10 Q. Yes, in question 3.9-1, do you see that the 11 question there relates to on-chip PLL or DLL? Do you 12 see that? 13 A. Yes, I do. 14 MR. OLIVER: Your Honor, if I could approach 15 the table. 16 JUDGE McGUIRE: Go ahead. BY MR. OLIVER: 17 18 Q. You recall that following the September 1994 19 meeting, we added on-chip PLL to the list, you see here 20 in this ballot that they are now referring to PLL or 21 DLL? 22 Α. I see that they're referring to what you said. 23 MR. OLIVER: Your Honor, if I could approach 24 the table again. 25 JUDGE McGUIRE: Yes.

1

BY MR. OLIVER:

Now, in October of 1995, Rambus received a 2 Ο. notice of allowability from the Patent & Trademark 3 Office with respect to its pending '646 application, 4 5 didn't it? 6 Α. I don't know. 7 MR. OLIVER: May I approach, Your Honor? 8 JUDGE McGUIRE: Yes. 9 BY MR. OLIVER: 10 Q. Mr. Crisp, I've handed you a document marked 11 CX-1482, it bears a caption at the top, United States 12 Department of Commerce, Patent & Trademark Office, 13 underneath the caption serial number 08/222,646. And 14 the caption a few lines down reads, "Notice of 15 Allowability." Do you see that? 16 Yes, I do. Α. Does this document refresh your recollection 17 Q. that in October of 1995 Rambus received a notice of 18 19 allowability relating to its pending '646 application? 20 Α. No. 21 Now, also during October 1995, Rambus in-house Ο. 22 lawyer Tony Diepenbrock was meeting with outside patent 23 counsel with respect to Rambus's pending claims concerning on-chip PLLs, right? 24 I don't know. 25 Α.

1MR. OLIVER: May I approach, Your Honor?2JUDGE McGUIRE: Yes.

3 BY MR. OLIVER:

Mr. Crisp, I've handed you a document marked 4 Q. 5 CX-1988, if I could ask you to turn, please, to page 2, 6 it's a statement on Blakely Sokoloff letterhead addressed to Rambus dated December 5, 1995, underneath 7 8 that reads, "Additional services rendered through 9 October 1995." And if you look under the caption 10 General Services, about five lines down is a section 11 that reads, "Meeting with Tony Diepenbrock regarding 12 status of DLL patents and preparation therefore." 13 Do you see that? 14 Α. Yes, I do. 15 Does that refresh your recollection that during Ο. 16 October 1995 Tony Diepenbrock was meeting with Lester 17 Vincent concerning Rambus's PLL or DLL patents? 18 Α. No. Now, also in October 1995 Mr. Vincent filed on 19 Ο. 20 behalf of Rambus an amendment to his pending '692 21 application relating to on-chip PLLs. Isn't that 22 right? 23 Α. I don't know. 24 MR. PERRY: Your Honor, I would like to suggest 25 that we're wasting a lot of time here, that unless

there's some foundation that he had any involvement in the patent prosecution process after Mr. Diepenbrock came on board as a patent attorney, we're going through this stuff that he's never seen before, he's not copied on, and he's just being shown stuff and asked does this refresh your recollection that you had no involvement in.

JUDGE McGUIRE: Mr. Oliver, that sounds like a
9 pretty good opposition to me. What's your response?

10 MR. OLIVER: Well, Your Honor, Mr. Crisp was 11 the representative of Rambus at JEDEC that during this 12 time period JEDEC was issuing survey ballots asking 13 members whether they were interested in using, among 14 other technologies, on-chip PLL/DLL in the future. 15 Companies were responding to the survey ballot between 16 September and December of 1995, during this very same 17 time period, Rambus was meeting with outside counsel, 18 working on patent claims on the same technology.

Now, I don't know what Mr. Crisp has or has not seen, I don't know what he does or does not know, but I think I'm entitled to try to use these documents to see what he does know.

23 JUDGE McGUIRE: Mr. Perry?

24 MR. PERRY: But what he's not asking him is did 25 he know it or was he involved. He's just showing it to

him and saying does it refresh your recollection. 1 2 JUDGE McGUIRE: Let's try to lay that 3 That's not a hard thing to do here, Mr. foundation. 4 Oliver, and that my expedite your own inquiry. 5 MR. OLIVER: Thank you, Your Honor. May I 6 approach, Your Honor? JUDGE McGUIRE: 7 Yes. 8 BY MR. OLIVER: 9 Q. Mr. Crisp, I've handed you a document marked 10 CX-1483, it bears a caption at the top of the United 11 States Patent & Trademark Office, about halfway down 12 the page the caption reads Amendment. The upper 13 left-hand corner, serial number 07/847,692. The upper 14 right-hand side, actually within the stamp, you see there's a date of October 23, 1995. Do you see that? 15 16 A. October 23? It looks like -- oh, down there. 17 Yes, sir, I see it. 18 Did you have any involvement in the preparation Ο. of the claims included in this amendment to Rambus's 19 20 patent application '692? 21 I don't know. I'm not sure even how to read Α. 22 this. 23 In other words, as you sit here --Q. 24 JUDGE McGUIRE: Well, if he can't -- well, then 25 you can inquire on that point, you know, even further.

I If he says I don't know, then to me that opens the door to allow you to inquire on that issue in greater detail. If he says no, I do not, then that should end the inquiry on that question. So, now are we clear on how to proceed?

6 MR. PERRY: Yes, Your Honor.

7 BY MR. OLIVER:

Q. Yes, Your Honor, and I probably have one more follow-up on that point. Mr. Crisp, as you sit here today, are you saying that you don't know one way or the other whether you were involved in the preparation of this amendment?

13 Well, I guess it really depends on what you Α. 14 mean by preparation of the amendment. I don't have any 15 recollection of being involved in this. There's some 16 chance that this is work product that came as a result 17 of a suggestion I may have made in 1992 or 1993 and 18 maybe it got filed whatever year this was, in 1995. I 19 don't know what the genesis is of the material that's 20 in this amendment. I don't recall ever having seen 21 this document. So, I don't want to give you the wrong 22 answer, I just simply don't know.

Q. Okay, again, I just want the record to be clear, but as you sit here today, you just don't know one way or the other whether you had involvement in

1 this?

2 Let me read the document first. Α. 3 Let me put it this way, if as you sit here Q. 4 today you don't know, I am prepared to move on to the 5 next subject. I just want the record to be clear. 6 JUDGE McGUIRE: Go ahead, you can move on. MR. OLIVER: If that's your answer, I want it 7 8 to be clear for the record. 9 MR. PERRY: Your Honor, if there is a question 10 pending, I would like to have him please --JUDGE McGUIRE: It's been answered. 11 12 MR. PERRY: I think it has. JUDGE McGUIRE: His answer as far as I can 13 14 tell, I think there was some follow-up, but I think 15 that's mooted by the previous answer, but he has 16 decided to go ahead and end his inquiry, so I am going 17 to encourage him to do that. 18 BY MR. OLIVER: 19 Mr. Crisp, you attended the next regularly Ο. 20 scheduled session of the JC-42.3 subcommittee in 21 December of 1995. Is that right? 22 Α. Yes, sir, that's correct. 23 And you also attended the JC-42.5 subcommittee Q. meeting in December of 1995? 24 25 A. Yes, I -- that's also correct.

Q. And do you recall at the JC-42.5 subcommittee 1 2 meeting you observed a vote on a so-called SSTL ballot? 3 Sir, I believe that an SSTL ballot would have Α. occurred in a JC-16 meeting, so I don't have any 4 5 recollection of that being in a modules meeting. 6 That's what the 42.5 committee was. 7 Okay. I might have misunderstood that, then. Ο. 8 If you can turn now, please, in CX-711 to page 187. 9 I don't seem to have a page 187 in here. I Α. 10 have a page that's not -- that doesn't have any number 11 Up at the top left says JEDEC.MBX on it. on it. 12 MR. PERRY: That's what I've got, too. 13 THE WITNESS: I think it must be that page, it 14 just didn't seem to have any stamp on it. 15 BY MR. OLIVER: 16 Q. If you look at the top of the page you're just 17 referring to, does it read, "Will do when it becomes clear that they have lost?" 18 19 Α. Yes, that's correct. 20 Okay, that's what I'm referring to. Q. 21 Your Honor, I will try to address that problem 22 overnight, in the meanwhile, I will move on. 23 JUDGE McGUIRE: All right. 24 BY MR. OLIVER: 25 Mr. Crisp, at the next day at the 42.3 Q.

subcommittee meeting, you observed the tabulation 1 2 results of the survey ballot, right? 3 I believe I was there for a portion of that. Α. I'm not certain that I was there for the entire 4 5 tabulation. 6 MR. OLIVER: May I approach, Your Honor? 7 JUDGE McGUIRE: Yes. 8 BY MR. OLIVER: 9 All right, Mr. Crisp, I've handed you a Ο. 10 document marked JX-28. These are the minutes of the JC-42.3 subcommittee of December 6, 1995. If you look 11 12 in the first page about four-fifths of the way down 13 you're listed as being present there. 14 Α. Yes, sir, I see that. 15 If I could ask you to turn, please, to page 34. Ο. 16 Do you have that page in front of you, sir? 17 Yes, sir, I do. Α. 18 You recognize this as the beginning of the Ο. 19 discussion of the future SDRAM features survey ballot? 20 Α. No. 21 If I could ask you to turn, please, to page 35. Ο. 22 There's a page there that's captioned Conclusions. Do 23 you see that? 24 Yes, sir, I do. Α. 25 Do you recognize that as a tabulation of the Q.

1 results of the survey ballot?

2 A. No.

3 Do you doubt that that is the tabulation Q. results of the survey ballot? 4 5 Α. No. 6 You just have no recollection one way or Ο. 7 another. Is that right? 8 Α. That's correct. 9 On page 35, if I could direct your attention Ο. 10 under "Issues With Strong Support," to the seventh 11 bullet point reads, "Standardize CAS latencies greater 12 than 4, but make them optional." Do you see that? A. Yes, sir. 13 14 Ο. And two lines below that, number 9, "On-chip 15 PLL/DLLs to reduce clock access time." Do you see 16 that? 17 Yes, sir. Α. 18 Does that refresh your recollection that at the Q. December 1995 42.3 subcommittee meeting, that the 19 20 results of the survey ballot indicated strong support 21 for standardizing CAS latencies beyond 4 and for using 22 on-chip PLL/DLLs? 23 Α. No. Let me direct your attention to the bottom of 24 Ο. 25 the page under Issues With Mixed Support, the next to

1 last item, "Using both edges of the clock for sampling 2 inputs." Do you see that?

3 A. Yes, sir.

Q. Does that refresh your recollection that the
results of the survey ballot at the December 1995 42.3
subcommittee meeting indicated mixed support for using
both edges of the clock?

8 A. No.

9 Q. Now, Mr. Crisp, at this December 1995 42.3 10 subcommittee meeting, you didn't say anything at all 11 with respect to any Rambus patent applications that 12 might relate to CAS latency, did you?

13 A. That's correct.

Q. And you did not make any statements at all with respect to any pending patent applications that might relate to the use of on-chip PLL or DLL?

17 A. That's correct.

18 Q. You also made no statement at all with respect 19 to any patent applications that might relate to use of 20 a dual edge clock?

21 A. That's also correct.

Q. At this December 1995 meeting, you saw thatMOSAID did make a patent disclosure, right?

A. That's not my recollection.

25 Q. If I could ask you to turn, please, to page 6.

I If I could direct your attention to paragraph 8.8. The caption reads, "SDRAM feature survey ballot results." Do you see that?

A. Yes, sir, I do.

Q. "MOSAID made a presentation on the results of the survey (see attachment G.) MOSAID noted that they had a patent pending on DLL." Do you see that?

8 A. Yes.

9 Q. "And noted that it was a particular 10 implementation and may not be required to use the 11 standard." Do you see that?

12 A. Yes.

Q. Now, does that refresh your recollection that MOSAID, in fact, disclosed the patent application relating to DLL at this December 1995 meeting?

A. I'm not sure what you mean by disclosing a patent application, I'm also not sure what they mean by standard in here, but -- I do remember Mr. Foss making a comment that he had a patent pending on a particular design of DLL. That's what I remember happening in that meeting.

Q. And that's, in fact, reflected in an email that you wrote from that meeting to the executive, business development, marketing and engineering managers groups at Rambus, right?

I believe I remember making a comment in my 1 Α. 2 I don't remember exactly what the comment said, email. 3 but I do remember making a comment.

4 Ο. If I could ask you to locate CX-711 in front of 5 you, please. If I could ask you to turn, please, to 6 page 191. Looking about halfway down the page 191, do 7 you see there an email from you to the executive, 8 business development, marketing, engineering managers 9 groups and Tony Diepenbrock dated December 6, 1995? 10 Α. Yes, sir, I do. 11 And the subject is JEDEC meeting notes? Ο. Mine says "JEDEC meeting notes December 6," in 12 Α. 13 paren. 14 Ο. Okay. If I could ask you to turn then to the 15 next page, page 192. And looking at a statement 16 appearing about a quarter of the way down the page 17 beginning with what appears to be five stars, maybe 18 four, four or five stars. Do you see that? 19 Α. Yes, sir, I do. 20 It reads, "Foss also presented information from Q. 21 a survey ballot about DLLs and PLLs on SDRAMs. He 22 stated that MOSAID has a pending patent application for 23 PLL/DLL on SDRAMs." Do you see that?

24 Yes, I do.

Α.

25 "His suspicion is that his patent will probably Q.

wind up being an implementation patent rather than a 1 2 concept patent. In the event the patent winds up being a concept patent, he says they will be compliance with 3 the JEDEC patent policy." Followed by more stars. 4 5 Do you see that? 6 Α. Yes, sir, I do. 7 And that's what you were referring to a moment Ο. 8 ago when you described what you wrote back to Rambus 9 executives? 10 Α. That's correct, that's what I remember writing 11 now. 12 Ο. And even after seeing this disclosure of a 13 patent application relating to PLLs/DLLs by MOSAID, you

A. Yes, that's correct.
MR. OLIVER: Your Honor, this is probably a
good spot to break for the day.
JUDGE McGUIRE: Okay. We will convene tomorrow

did not say anything with respect to any Rambus patent

application concerning PLLs or DLLs. Is that right?

14

15

20 morning, then, on the 29th at 9:30 a.m. Everyone have 21 a good evening, thank you.

22 MR. STONE: Your Honor, just before we break, 23 could I ask, Mr. Oliver told me that complaint counsel 24 had no objection to the four other exhibits that I had 25 offered this morning.

JUDGE McGUIRE: Are we still on the record, 1 2 Madam Reporter? 3 MADAM REPORTER: Yes. JUDGE McGUIRE: Do you want to offer them at 4 5 this time? 6 MR. STONE: Yes, Your Honor, we would offer 7 RX-1885, RX-1895, RX-2050 and RX-2103-14. 8 JUDGE McGUIRE: Mr. Oliver? 9 MR. OLIVER: No objection, Your Honor. 10 JUDGE McGUIRE: So entered. (RX Exhibit Numbers 1885, 1895, 2050 and 11 2103-14 were admitted into evidence.) 12 13 MR. STONE: Thank you, Your Honor. 14 JUDGE McGUIRE: This hearing is adjourned. 15 Thank you. 16 (Whereupon, at 4:57 p.m., the hearing was adjourned.) 17 18 19 20 21 22 23 24 25

CERTIFICATE OF REPORTER 1 2 3 DOCKET/FILE NUMBER: 4 CASE TITLE: RAMBUS, INC. 5 HEARING DATE: MAY 28, 2003 6 7 I HEREBY CERTIFY that the transcript contained 8 herein is a full and accurate transcript of the notes 9 taken by me at the hearing on the above cause before 10 the FEDERAL TRADE COMMISSION to the best of my 11 knowledge and belief. 12 13 DATED: 5/29/03 14 15 Susanne Bergling 16 Sally Jo Bowling 17 CERTIFICATE OF PROOFREADER 18 19 20 I HEREBY CERTIFY that I proofread the 21 transcript for accuracy in spelling, hyphenation, 22 punctuation and format. 23 24 25 Sara J. Vance For The Record, Inc. Waldorf, Maryland (301) 870-8025