

FEDERAL TRADE COMMISSION
I N D E X (PUBLIC RECORD)

<u>WITNESS:</u>	<u>DIRECT</u>	<u>CROSS</u>	<u>REDIRECT</u>	<u>RECROSS</u>
Appleton	6252	6404	6537	6542

<u>EXHIBITS</u>	<u>FOR ID</u>	<u>IN EVID</u>	<u>WITHDRAWN</u>
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CX

Number 1140		6404	
Number 1646		6480	
Number 3110		6369	

RX

Number 828		6344	
Number 1288		6537	
Number 1464		6480	
Number 1716		6480	
Number 2303	6418	6479	
Number 2304	6462	6480	
Number 2305	6464	6480	
Number 2306	6468	6480	

JX

None

<u>EXHIBITS</u>	<u>FOR ID</u>	<u>IN EVID</u>	<u>WITHDRAWN</u>
<u>DX</u>			
Number 110	6262		
Number 111	6267		
Number 112	6271		
Number 113	6272		
Number 114	6282		
Number 115	6292		
Number 116	6474		

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION

In the Matter of:)
Rambus, Inc.) Docket No. 9302
-----)

Friday, June 20, 2003

10:00 a.m.

TRIAL VOLUME 32

PART 1

PUBLIC RECORD

BEFORE THE HONORABLE STEPHEN J. McGUIRE

Chief Administrative Law Judge

Federal Trade Commission

600 Pennsylvania Avenue, N.W.

Washington, D.C.

Reported by: Susanne Bergling, RMR

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P R O C E E D I N G S

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JUDGE McGUIRE: This hearing is now in order. Are there any issues that need to come before the Court before we begin today?

MR. STONE: Your Honor, I did not know if you were going to issue an order on --

JUDGE McGUIRE: I'm sorry?

MR. STONE: I did not know if you were going to issue an order before we start.

JUDGE McGUIRE: I plan on issuing an order here very shortly. I have a couple of inquiries on that first before I do that.

MR. STONE: The only issue I was going to raise is we will have some fairly significant relevance objections to what it appears will be some of the testimony elicited from Mr. Appleton based on the graphics that we received yesterday, the demonstratives. I just want to alert you. I don't think they should be argued in advance, but I wanted to alert you that we will have a couple of those issues.

JUDGE McGUIRE: All right.

Do you have anything, Mr. Royall?

MR. ROYALL: Your Honor, I wasn't in the courtroom yesterday. When you say you are going to

issue an order, is this on --

JUDGE McGUIRE: On the request from Micron, and on that topic, I want to inquire of complaint counsel, did you intend to respond in any way to that earlier request by them?

MR. ROYALL: We have no intent to make any kind of written response. I expect that these issues may come up in some way orally today, and at that time I may have something to say.

JUDGE McGUIRE: The other thing I want to inquire of complaint counsel, is it your intention to seek findings by the Court on the issue of the purported higher cost or higher price of RDRAM?

MR. ROYALL: I just want to make sure I understood the question.

I believe, Your Honor, that one of the issues that we would seek findings on -- it's a subissue, perhaps -- but would relate to the factors that affect the success or failure of technologies in this marketplace and as relate to various proposed standards, including RDRAM. So, it's an issue that I do think --

JUDGE McGUIRE: Including the purported higher cost and higher price of RDRAM?

MR. ROYALL: Yes, Your Honor, that we would --

that it would be encompassed within facts that we think are relevant, although not central to the case, that there were issues relating to the costs associated with manufacturing, for instance, of RDRAM that influenced its -- the extent to which it succeeded in the marketplace.

JUDGE McGUIRE: Okay, then Mr. Royall, you just indicated as well that you perhaps thought that some time today you would make an oral statement regarding your response to the request. This is the time to do so.

MR. ROYALL: Well, the -- when I said that, what I was referring to is I expect that when questions are asked, if questions are asked on cross examination relating to these issues, that there may be a point at which we would object. Now, I -- as you know obviously, we filed a motion in limine, and Your Honor has ruled on that.

JUDGE McGUIRE: Yes, right.

MR. ROYALL: As we understand the ruling, you have said that you have some doubts about the relevance of evidence relating to purported collusion among DRAM manufacturers, and you have said that you do not intend to entertain extensive examination on that question.

JUDGE McGUIRE: Right.

MR. ROYALL: And that's the context in which I might have something to say, is if there is an effort to have an extended examination, I might object at that point.

JUDGE McGUIRE: Okay, then at this time the Court wants to issue its order on this matter, if counsel will approach, including counsel for Micron.

MR. POWERS: Yes, Your Honor, Matt Powers of Weil, Gotshal & Manges for Micron.

JUDGE McGUIRE: All right, come on forward.

Do the parties want to take a short break to have time to consider this order, and then we'll return?

MR. STONE: I think it might be useful if we could.

JUDGE McGUIRE: All right, I am going to go back to my office. I suggest someone give my office a call when you're ready, and I will return at that time.

MR. STONE: Thank you, Your Honor.

MR. ROYALL: Thank you, Your Honor.

(A brief recess was taken.)

JUDGE McGUIRE: On the record.

Counsel, anything we need to take up?

MR. ROYALL: Your Honor, obviously we've read your order, and in response, all I would say is that I

don't -- we understand your order, and I don't believe that anything in it would necessitate delaying our proceeding today. There are some statements in the order that complaint counsel does have views on. We would like to be heard at some appropriate time, but we don't see the need to delay our proceedings today.

JUDGE McGUIRE: Okay, good.

Mr. Stone, did you have any response on behalf of respondent?

MR. STONE: No, Your Honor.

JUDGE McGUIRE: All right, at this time complaint counsel may call its next witness.

MR. ROYALL: Thank you, Your Honor.

At this time, complaint counsel calls as its next witness Mr. Steve Appleton.

JUDGE McGUIRE: All right, Mr. Appleton, will you please come to the Bench and be sworn in by the court reporter.

Whereupon--

STEVEN R. APPLETON

a witness, called for examination, having been first duly sworn, was examined and testified as follows:

JUDGE McGUIRE: Have a seat right there, if you would, Mr. Appleton.

You may proceed.

DIRECT EXAMINATION

BY MR. ROYALL:

Q. Good morning, Mr. Appleton.

A. Good morning.

Q. Could I ask you to state your full name for the record?

A. Steven Robert Appleton.

Q. And where are you employed, Mr. Appleton?

A. Micron Technologies.

Q. Where is Micron Technologies headquartered?

A. Our headquarters are in Boise, Idaho.

Q. Is that where you live?

A. Yes, it is.

Q. How would you describe the basic nature of Micron's business?

A. Micron produces a variety of products, and today we're focused in semiconductors.

Q. And what position or positions do you hold at Micron?

A. Today, I am chairman of the board, chief executive officer and president.

Q. And how long have you held those positions?

A. I've held those three positions since 1994.

Q. Could you describe for us in general terms the nature of your current responsibilities at Micron?

A. Yeah. Well, as the CEO and chairman of the board and president, I have broad responsibilities for the entire corporation, and we have operations worldwide, and so my responsibilities primarily focus on resource allocation, of course, you know, employment issues and really strategic and vision, so to speak, of the company as it moves forward.

Q. When did you first start working at Micron?

A. In February of 1983.

Q. And was that right out of college or had you --

A. It was shortly after college.

Q. Would it be fair to say that you've spent most of or all of your career at Micron?

A. Yes.

Q. And what was your first job at Micron?

A. When I started at Micron, of course, we were a very -- we were a startup company. I started in production, in the manufacturing of wafers.

Q. And how long did you work in that area of Micron's business?

A. Well, I was in operations for years, when I started as a production operator running the equipment, and there's really a series of positions after that that were in operations.

Q. Well, could you walk us through the --

A. Sure.

Q. -- we don't need to go into any great detail, but just to give us a sense of the different positions that you held as you progressed through the operations side of Micron's business?

A. Yeah. I'll try to maybe capture it in the -- leading up to when I became president in 1991, I had 11 promotions in those nine years. I didn't skip any positions. I was a production operator, then a lead production operator, then a production supervisor, and then I became what we called a supervisor for multiple areas in the fab, and then what was called a shift production manager, and then eventually production manager of all of the fab operations, covering all the shifts. And we ran 24 hours, seven days a week beginning in 1983 shortly after I started with the company.

And then from there, I moved to responsibilities which was called a wafer fab manager, and that's where you manage all of the functions that are going on with respect to both production and engineering. And then I was promoted to include all of manufacturing, which was not just wafer fabrication, but it included the assembly and packaging operations, and it included the test operations.

And then I was promoted to director of manufacturing, which really included a few other things in the operation. And ultimately, before becoming president, I was vice president of the operations, and that included things like facilities and security and plant services and those kinds of things.

Q. And how long were you vice president of operations?

A. I was vice president of operations for a couple years before becoming president.

Q. And you became president in what year?

A. In 1991.

Q. And did you hold that position for some period of time before you also assumed the title of chairman and CEO?

A. I had that position up until I became CEO and chairman in 1994.

Q. Do you recall how old you were when you became the CEO of Micron?

A. I was 34 years old. I remember looking it up on the Fortune 500, and there were only two other CEOs that were -- just out of curiosity, there were two other CEOs that were younger than I was, and it was Ted Waite who had founded Gateway, and Michael --

JUDGE McGUIRE: Okay, we don't need to get into

that.

BY MR. ROYALL:

Q. Let me ask you a little bit about your background and education.

Are you originally from Idaho?

A. No, I was born in Los Angeles and raised in Los Angeles.

Q. And when did you move to Idaho?

A. I moved to Boise to go to university there in 1978.

Q. Which university are you referring to?

A. Boise State University.

Q. What did you study there?

A. Management, business.

Q. And did you get a degree from Boise State?

A. Yes.

Q. In business management?

A. In business management.

Q. And what year was that?

A. 1982.

Q. Do you hold any other degrees?

A. No.

Q. Have you ever studied engineering?

A. Yes.

Q. Can you explain?

A. Well, after I -- well, there -- maybe just a quick synopsis, when I was at Boise State University, I was pursuing a triple major, which was in computer science as well as accounting. You know, I went there on scholarship to play tennis for the university, and I, of course, had wanted to continue that shortly after college to see how I would do, but I didn't want to leave school before I graduated. So, I focused in my last semester everything on business to get the degree before I left the school.

And then after I started work at Micron, obviously that's a technology-oriented company, I actually went back to the university to take science courses. I wanted to pursue my -- actually my EE and my Master's in EE, because I had a lot of science background previously. So, I entered courses through the University of Idaho, and a lot of it was process-oriented, although some circuitry as well.

Q. Just so it's clear for the record, you mentioned I think EE. Are you referring to electrical engineering?

A. Oh, I'm sorry, electrical engineering, yes.

Q. Have you ever worked as an engineer for Micron?

A. No, I have never held an engineer position at Micron.

Q. Now, before I go any further about your particular role at Micron, let me ask you a few questions about the company and its history.

First of all, do you know when Micron was founded?

A. 1978.

Q. And do you know who founded the company?

A. There were -- the founders were two twin brothers, Ward and Joe Parkinson, and the company in the beginning was just founded as a consulting firm for DRAM design in 1978 and existed -- there were only I think three or four or five people in the company until they got into the early eighties and then decided to try to manufacture its own DRAM.

Q. And when you joined the company in 1983, was Micron already at that time producing DRAM?

A. It was very limited. They were really just starting to run the manufacturing fab that had completed construction the prior year.

Q. Do you recall roughly how many employees the company had when you started in '83?

A. I don't remember the exact number. It was probably between 100 and 200 people.

Q. Roughly how many employees does Micron have today?

A. About 17,000.

Q. Is Micron a public company?

A. Yes.

Q. Do you recall when it became public?

A. We became public in the spring of 1984.

Q. Has Micron's business evolved or changed at all in the 20 or so years that you've been employed by the company?

A. It's changed dramatically.

Q. In what way?

A. Well, I think there are a couple of different ways to categorize it. We -- first of all, we were a small startup company, struggling, if you will, in the early eighties, and we really had one product and not very many people, and in the competitive environment, there were probably 20-25 companies that produced DRAM at that time.

And then over the ensuing years, there's been a continuation of consolidation, and Micron has continued to grow in size and success, and of course, the company today is the second largest producer of DRAM, and we have operations around the world.

When we first started, we had the one little building in Boise, Idaho. Today we have operations in every region of the world. We have operations -- we

make wafers in Singapore and Japan and Europe and, of course, in the United States.

Q. And do you today make products other than DRAMs?

A. Yes, we -- we have -- we make products that are known as flash memory, we make products that are known as CMOS imagers.

Q. I believe that we may have a demonstrative that relates to Micron's products. Can you pull that up?

MR. STONE: Your Honor, I think we're getting into a level of detail that's probably not relevant to the issues in this case about Micron's business, and I would object. I think some background is certainly appropriate, but I would object to going into other details of Micron's business that are not relevant to this case just on the grounds of relevance and trying to conserve time.

JUDGE McGUIRE: Mr. Royall, any response to the objection?

MR. ROYALL: Your Honor, this is just foundational, and it will just take a moment. It is meant to lay a foundation as to the portion of the company that produces DRAM.

JUDGE McGUIRE: All right, I'll give you some leeway, but let's keep it brief.

MR. ROYALL: Okay, thank you.

BY MR. ROYALL:

Q. Mr. Appleton, do you see on the screen a slide display? Do you recognize this?

A. Yes.

Q. Can you tell us what it is?

A. Well, this is a slide just describing the products that we have. We use this often. I use it in meetings as just a general discussion about the types of products that we have that are available.

Q. You mentioned earlier, in addition to DRAM, that you make flash and CMOS image sensors. Is that right?

A. Yes, yes.

Q. Just very briefly, what is flash?

A. Flash is a type of memory that when you turn the power off, it retains its memory.

Q. And what about CMOS image sensors, what are those products?

A. Those are semiconductors that actually capture an image, so we think of digital still cameras today and cell phones, those types of things. Even the pills that you swallow that take pictures of your inside, that's a CMOS imager. It's just capturing the image that it sees, whatever that image might be.

Q. Well, referring to -- just to the DRAM part of your product mix, who are the customers that Micron sells DRAMs to?

A. We have really two categories -- or several categories of customers, but two primary. One is the computing customers. That would be the names that most people recognize, Dell, IBM, Gateway, Hewlett Packard.

And then we have customers that are in what we call networking and communications. So, CISCO, Nortel, those types of customers. And in the communications side, it would be companies, you know, like Sony Ericsson, Nextel, Nokia and so forth.

Q. And just to be clear before we pull this slide down, are -- these three products, are these the principal products that Micron produces today?

A. Yes.

MR. ROYALL: Your Honor, before we go further, I'm not sure where we are in terms of marking demonstratives.

JUDGE McGUIRE: It was 100 and something. Mr. Stone, you were the previous historian in that regard.

MR. STONE: I think we're to 110, Your Honor.

JUDGE McGUIRE: 110, let's mark it as DX-110.

MR. ROYALL: Thank you, Your Honor.

(DX Exhibit Number 110 was marked for

identification.)

BY MR. ROYALL:

Q. Besides the three products that we just discussed, are there other products that Micron has manufactured in the past but no longer makes?

A. Oh, sure. We used to make PCs. We used to make flat-panel -- we did what are called field emission devices, display type products. We made semiconductor equipment for the industry, a variety of types of products.

Q. Is there any reason why Micron chose to withdraw from those businesses?

A. Well, we -- when I became CEO in '94, I just thought that we needed to focus the company so we wouldn't be diluted on resources and so forth, and over the ensuing seven or eight years, we have either absorbed, divested or just stopped working on all of those other products. Today, Micron is purely a semiconductor company.

Q. And what portion, if you can say generally speaking, what portion of Micron's revenues today come from DRAM sales as opposed to other semiconductors?

A. It's approximately 95 percent.

Q. And for what types of applications does Micron sell DRAMs?

A. Well, the applications, as I mentioned, are -- the one that most people think of are computers, you know, that you sit on your desktop, but when I say computing, it includes the notebook computers, it includes desktops, it includes servers. It would include peripherals, those types of products, in the computing environment.

And then when you think about the networking environment, then it's really, you know, CISCO routers and those types of things, switches, base stations for wireless phones and so forth. So, it covers those types of applications.

Q. And focusing on Micron's production as of today, what types of DRAMs does Micron produce?

A. We make a variety. We make what we call EDO, which is extended data out. We make synchronous DRAM. We make DDR, we make DDR2. And we have some specialty DRAMs, things like pseudostatic RAMs.

Q. And do you have an understanding as to how your product -- overall product mix breaks down across these different types of products?

A. Yeah, well, almost all of the -- the majority of the product is today synchronous DRAM and DDR, and there's just a whole variety of configurations that -- around those two devices, but essentially those are all

derivatives of kind of the same basic part.

Q. And when you say that synchronous DRAM and DDR are the majority of your products, do you have a sense of, in terms of percentages, what percentage of your total production is made up of SDRAM and DDR SDRAM memory?

A. Of the DRAM that we produce today, I would -- I think it's in excess of 95 percent would be between synchronous DRAM and DDR.

Q. Now, referring to those two products, do you have an understanding as to whether these products are standardized in any way?

A. Yeah, they're -- there is a JEDEC standard that we build these products to.

Q. And to your knowledge, do all of the SDRAM and DDR SDRAM devices that Micron produces comply with JEDEC's specifications?

A. Yes.

Q. Are all of the -- focusing on SDRAM, are all of the SDRAM products that Micron produces the same, or does Micron produce more than one version of SDRAM?

A. Well, we have a -- we have a variety of versions of SDRAM, both -- we have density changes, in other words, when we talk about a 64 meg, a 128, a 256, a 512, we're talking about the number of megabits for a

given chip, and then we have lots of types of configurations, which are, you know, x4, x8 or x16, which really discusses how the data is either put in or brought out of the device in parallel and at what time. So, we have a variety of both density and configurations on synchronous DRAM.

Q. And is that true for the DDR SDRAM products that you produce as well?

A. It would be the same for the DDR as well.

Q. Now, you mentioned earlier that over time, in the 20 years that you've been with Micron, the company has become more global. Let's talk about that for a little bit.

When you started at Micron in 1983, where were -- where were the company's operations based?

A. The only operation that we had was in Boise, Idaho.

Q. And has that changed since that time?

A. Yeah, it's changed really quite dramatic. We -- through time, we now have operations -- first of all, it's spread throughout the United States, so we have manufacturing plants not only in Boise, but we have them in Utah, we have them in Virginia, and we also have design centers all over the -- all over the United States, but really I think the component that's

probably changed the most is how global this business has become and how international it is. So, we have operations, either design centers, manufacturing operations, sales offices, really in many parts of the world.

Q. I think we have another demonstrative that may relate to this. This will be DX-111, I believe.

JUDGE McGUIRE: Yes.

(DX Exhibit Number 111 was marked for identification.)

BY MR. ROYALL:

Q. Do you see the slide that's on the screen, Mr. Appleton?

A. Yes.

Q. And do you recognize that slide?

A. I do.

Q. Can you explain to us what it -- what it is or what it shows?

A. Yeah, this is a slide that's depicting the major parts of the various types of activities that we have and the location around the world. You can see -- when it says fabrication, it means wafer fabrication, and when I say wafer fabrication, that means that we have in those locations an actual wafer fab producing wafers.

Under test and assembly, it really is describing where we package and where we test devices. Under design, you can see we have quite a few design centers around the world. That's where we have people actually designing the product that we ultimately would intend to manufacture.

And then perhaps it's worth knowing when it says module assembly, it's a little different than assembly in that module assembly means that we're taking a part that's already been packaged, we're then putting it on a module before we ship it to a customer. And a module is really nothing more than a little circuit board.

Q. And is some portion of your overall DRAM sales sold in module form and other sales in chip form?

A. Yeah, it has varied over time. Today, about 60 or 70 percent of our product is actually sold in module form. In other words, the customer decides whether or not it's a component or whether it's in module form, and today 60 or 70 percent of the product, the customer happens to be wanting it in module form. And it's varied a little bit over time, but the percentage is relatively consistent.

Q. Now, referring to the first two columns here, fabrication and test/assembly, are all of the DRAM

products that Micron manufactures or fabricates in, let's say, the United States also tested and assembled in the United States?

A. No, that's not true. The manufacturing of the product is obviously where we do it in wafer form, but those wafers really can go anywhere in the world to be packaged and assembled. Obviously you can see here that we have five wafer fabs, but yet really we only have two large packaging operations and three test operations. So, I would say that -- that that can be the case a lot of times, but it depends on where the customer wants the product from, in other words, which operation, and the product pretty much flows back and forth pretty freely.

Q. And when you say the product flows back and forth, are you saying that within Micron's own internal process of manufacturing and then testing and assembling, that as those processes are being completed, Micron is shipping products across international boundaries?

A. Yeah, I think one thing to note here is that the -- when most people think of shipping, they think of large costs when they think of shipping internationally. You know, the fact is that these devices are very, very small, they're not much in

weight, and they move around the world pretty freely and at a relatively low cost.

So, we -- the fact that we ship wafers from Idaho over to Singapore or wafers from Italy down to Singapore to be assembled, on the cost side, it's not that significant. It's pretty much we're trying to match capacity around the world with all of our operations.

Q. I think we have another slide that relates to this. This will be DX-112, I believe.

JUDGE McGUIRE: Mr. Stone?

MR. STONE: Your Honor, again, I simply -- I think we have established that their operations are international, and I think beyond that there is not any relevance to this continued line of questioning. It certainly leaves many more topics for cross examination than I think are necessary.

JUDGE McGUIRE: Mr. Royall, are these upcoming slides cumulative?

MR. ROYALL: Your Honor, the -- I just have a couple more points to touch on --

JUDGE McGUIRE: But are they cumulative at this point?

MR. ROYALL: No, I don't believe so. We haven't talked about sales, and I wanted to touch on

sales, and I would just note for the record that this is all actually quite relevant to remedy issues in this case. The international flow of products across international boundaries is a significant factor in terms of the scope of the remedy that complaint counsel is seeking in this case.

JUDGE McGUIRE: All right.

MR. ROYALL: And it's not an issue, I would add, that has really been touched upon by prior witnesses.

JUDGE McGUIRE: All right, proceed.

(DX Exhibit Number 112 was marked for identification.)

BY MR. ROYALL:

Q. Now, do you recognize this slide, DX-112, Mr. Appleton?

A. Yes.

Q. Can you explain basically what it shows or depicts?

A. Yeah, it depicts -- obviously shows some depiction of the operations around the world, but it depicts where we have sales and marketing offices, and it also happens to denote the design and manufacturing facilities around the world.

Q. Now, the sales and marketing offices are

depicted by the red circles and the yellow circles. Is that right?

A. That's correct.

Q. Well, referring to the yellow circles or the international sales locations, why -- why are they so dispersed? Is there a reason for that?

A. Well, there's just a lot of territory to cover. The sales offices are in the major locations where you would have consumption of devices.

Q. Now, we have one more slide, and then we'll be done with this. Can we pull that up? And this will be DX-113.

(DX Exhibit Number 113 was marked for identification.)

BY MR. ROYALL:

Q. Do you see the slide on the screen, Mr. Appleton?

A. Yes.

Q. And can you explain to us what this slide depicts?

A. Well, it essentially just describes the -- where the bulk of our product goes, and it depicts essentially that, you know, Micron -- we talked about a change in our business from the earlier years, we were all in the United States. Today, about half of our

product is sold outside the United States and about half of the product is sold inside the United States.

Q. And is it the case that the products that you sell, whether they're DRAM modules or DRAM chips, individual chips, that they are sometimes incorporated into other end products, computers or other products which are then also resold?

A. Yes, that -- as we -- as we sell the product to the customer, the customer, whether they're U.S.-based or European-based or Asian-based, will have manufacturing plants around the world. They all tend to vary to the customer, but we ship that product to that customer, and that customer incorporates that product into an end product, and then they ship it somewhere else in the world.

Q. Well, do you know whether the customers that you deal with say in the United States in terms of customers that are incorporating your products into their own end products, do you know whether all of those end products are also sold in the United States?

A. I think it is really pretty varied. They'll produce product here, and then they'll ship it to their customer somewhere else in the world.

I might add that there is a percentage of our business that goes directly to the customer, but -- in

other words, if you think of today the internet, people can go on the internet, they can look up -- most people think in terms of adding memory to their PC. They can go buy that memory direct from the company, but that's a relatively small percentage of our total business. Most of it goes to one of these OEMs, which then ships their product somewhere else.

So, as an example, we can ship product to HP or we can ship it to CISCO, and they'll then incorporate that product in the box and ship it somewhere else in the world, and that either may or may not be in the United States.

Q. Now, you said earlier that -- I believe you said -- that it's your understanding that all of the SDRAM and DDR SDRAM devices that Micron produces comply with JEDEC standards.

A. Yes.

Q. Is that right?

A. Yes.

Q. Is that true of the products that you produce overseas as well?

A. Yes.

Q. Do you regard JEDEC standards as U.S. product standards, world standards or something else?

A. Well, the participants in JEDEC are from all

over the world. It's definitely an international standard, that that product then gets standardized by companies all over the world to be incorporated into their product. So, the device that we sell to, as an example, Fujitsu is the same JEDEC standard device that we would sell to Dell.

Q. And to your knowledge, is it important to your customers that Micron's SDRAM and DDR SDRAM devices do comply with JEDEC standards?

A. Well, it's not -- yeah, it's critical to the customer and it's critical to the manufacturer. I mean, when you think about why it's so critical, you know, when -- when the whole world can design to a standard, then it has a benefit not only to those of us that manufacture, because we all then cumulatively put resources towards bringing that product to market and it's more cost-effective because we're able to know what's going to be consumed in the marketplace in aggregate, it's of benefit to the customer, because the -- and the reason these standards exist is that the customer also needs to know that they're going to have a variety of supply from companies in order with which to build their products. So, the only way you can possibly achieve that is to design it to a standard, and what --

JUDGE McGUIRE: Okay, Mr. Appleton, I'm going to cut you off. I don't want to hear these long -- I'm sure it's very interesting and such, but I want you to confine your question -- your answer just to the question and not engage in these long narratives.

THE WITNESS: Okay, sure.

JUDGE McGUIRE: Thank you.

MR. ROYALL: Thank you, Your Honor.

BY MR. ROYALL:

Q. Let me move on to another subject, Mr. Appleton. I'd like to ask you a few questions about the DRAM industry in general.

Back when you began at Micron in the early 1980s, do you recall roughly how many different companies Micron competed with in the DRAM business?

A. It was 20 or 25.

Q. Has the competitive landscape changed since that time?

A. Yes.

Q. And can you explain how?

A. The companies today that constitute the majority of the business have now been reduced to five or six, and in the 1980s, it was predominantly Japanese companies, and today it's really one or two companies from the major regions of the world.

Q. How many DRAM manufacturers in addition to Micron are located in the United States?

A. None.

Q. What about overseas, how many companies do you compete with overseas?

A. There is one DRAM manufacturer in Europe, there is now one DRAM manufacturer in Japan, and there are two DRAM manufacturers in Korea. And then there are two or three smaller -- much smaller DRAM manufacturers in Taiwan.

Q. Do you in your capacity as the CEO of Micron have any understanding as to why other companies have exited this business?

A. Well, it's -- it's been a very competitive business over time. Those companies that weren't able to focus on cost and reduction of cost simply weren't able to remain competitive, and the more competitive companies are the ones that have been able to remain, and the other ones have exited the business.

Q. Do you regard the DRAM business in any way as being a volatile business?

A. It's probably one of the most volatile businesses that exists today.

Q. And what do you mean -- when you think of it as a volatile business, what do you mean by that?

A. Well, there are two components of volatility. One is the supply, and then one is the -- the demand, and of course, that ends up being the selling price of the product dramatically changing over time. You can have as much as an 80 or 90 percent drop in selling price in as short a period of time as 18 to 24 months.

Q. Do you have any views as to why or how Micron has managed to stay in the DRAM business when other companies have not?

A. Yeah.

Q. What are your views in that regard?

A. Well, I think that we have focused on -- you know, we've focused on a number of things, and in particular, we've focused on things like costs, things like innovation, continued to move forward in being more competitive.

Q. Is there a measure of cost that is relevant to you in evaluating your business and the efficiency of your business?

A. We define it as cost per bit, and Your Honor, if you will allow me just to expand on that for a second --

JUDGE McGUIRE: Go ahead.

THE WITNESS: -- the cost per bit, when we say we produce a 256-megabit device, we say that we're

producing a computer chip that has 256 million bits on it, and a bit is just a piece of information stored on the device. And so the cost to produce that individual bit is the way that we measure through time how -- either cost reductions or how competitive we are.

BY MR. ROYALL:

Q. And you talked about cost reductions. Is reducing costs something that Micron seeks to do on a continual basis?

A. Yes.

Q. And why? Why is it -- does it focus on reducing costs?

A. Well, the -- the most predominant factor in being successful in the DRAM business has been a company's ability to continue to lower its cost per bit, and that's why we focus so much on it.

Q. Do you have any specific targets in terms of how quickly or by how much you seek to reduce your costs over time?

A. Well, we have -- Micron's been able to average over the last 20 years reducing our costs every year, compounded, approximately 25 to 30 percent annually. It just so happens to be that, you know, this year we have a target of reducing our costs 50 percent, but on average, it's been 25 to 30 percent every year.

Q. Have you ever heard the DRAM business referred to as a commodity business?

A. Sure.

Q. And do you agree with that characterization?

A. Ah, I do in many ways, and it's predominantly related to the way that the product gets priced and gets sold. If we go back to the -- the comment earlier about having an open standard, when you have an open standard, lots of people produce a product that's compatible to that open standard, and as a result, there's a varying supply out there, and so when they talk about commodity, talk about the nature of really the volume and the pricing associated with it, much like you would associate it with some other type of commodity that more of us are maybe familiar with, either in agriculture or oil or something like that, and people describe it as a commodity because the selling price of the product moves very much with the -- with essentially the general amount of supply in the market, and it moves up and down. In other words, they call it commodity life, because it goes up and down just like commodity products do.

Q. Does the commodity nature of this business affect the way that you operate or that Micron operates its business?

A. It has a large impact. I mean, that goes back to the question about why we have to always continue to reduce our costs, because the selling price can be so volatile.

Q. Do you regard the DRAM business as a cyclical business in any way?

A. Yes, well, it's very cyclical. When you consider that Micron's revenues can go up 3X and then drop by 80 percent from one year to the next, and when you talk about the supply that comes online in relatively large chunks, if you will, then it creates a very cyclical business.

Q. Just so the record's clear, you said I believe in response to that last question something about Micron's revenues can go up 3X?

A. Yes.

Q. What did you mean by that?

A. Well, based on the supply and demand equation and what's happening with the cyclicity of the business, our revenues can go -- in fact, they did, our revenues went from \$2 or \$3 billion up to \$6 or \$7 billion in the matter of a 12 to 18-month period.

Q. Mr. Appleton, are you generally familiar with Micron's financial position?

A. Yes.

Q. Is it important for you in your capacity as the CEO and chairman of the company to be familiar with the financial position of the company?

A. Yes.

Q. And why is that important?

A. Well, as CEO, I have -- I have responsibility, of course, to the shareholders, but in addition to that, I have responsibility for utilization of the company's resources internally, and I need to understand our financials in order to do that.

Q. I think we have another slide to show you. This will be DX-114.

(DX Exhibit Number 114 was marked for identification.)

BY MR. ROYALL:

Q. Do you recognize this slide, Mr. Appleton?

A. Yes.

Q. And can you explain to us what it is, what it shows?

A. This is a slide that depicts Micron's annual sales since 1994 through 2002. It's a line that shows our R&D expenditures in comparison to that, and then it's a slide that shows our net income in those years.

Q. Now, referring to the net income row of the information that's presented here, there's some numbers

that are in parentheses.

Do you see what I'm referring to?

A. Yes.

Q. Do you have an understanding of what that indicates?

A. Those are the -- when they're in parentheses, it means that that's a loss for the year.

Q. So, let me see if I'm following you. Referring to the most recent year that the statistics are reported here, 2002, under Net Income, there's the number 907 in parentheses.

Do you see that?

A. Yes.

Q. And what specifically does that indicate?

A. For the -- for last year, for our fiscal 2002, we lost \$907 million.

Q. So, you're saying that on the year as a whole, you had a loss of that amount and no profit whatsoever?

A. That is correct.

Q. And in the earlier years going back, 2001, 1999 and 1998, do you see the parentheses in the Net Income (loss) row in those years?

A. Yes.

Q. And are those also years in which the company had no -- no net profits, but net losses in the amounts

indicated?

A. Yes.

Q. There have been a string of losses over the -- four of the last five years for Micron. Is that correct?

A. Yes. I would add that 2003 so far we've reported approximately a billion dollars in losses.

Q. Do you have any understanding or explanation as to why Micron has experienced losses in these amounts over four of the last five years?

MR. STONE: Your Honor, I should at this point, A, object that I think if we're going to get into the detailed financial information of Micron, I think we're getting into an area that's not relevant.

B, in the course of discovery in this case, Micron took the position that all of its cost information was not relevant, and they refused to produce it. So, if this is an area we're going to go into -- and you may rule that complaint counsel is entitled to inquire into it -- we will ask the Court to allow us to make a motion to compel Micron to produce the cost information that they have withheld so far, and we will ask to recall Mr. Appleton so that he can be examined on it.

And I want complaint counsel to be alert to

that fact, because I know we've been told that Mr. Appleton will not return to this trial. His lawyers, one of his lawyers who's here, has told us that because the cost of travel is too high, so that we can't call him back. So, I think -- I want to alert them if they have a position in this regard.

JUDGE McGUIRE: All right.

Is that the case, that this information has not been offered to the other side prehearing, Mr. Royall?

MR. ROYALL: No, Your Honor, that is not the case. The information that is presented here, as indicated, comes from Micron's 2002 annual report, which is --.

JUDGE McGUIRE: Has it been provided to the other side?

MR. ROYALL: -- a public document.

MR. STONE: These numbers, Your Honor, these numbers on this chart we do have, but the underlying cost data which he was examined about earlier, the underlying cost data which he was examined about earlier which underlies this data, we have not seen.

JUDGE McGUIRE: All right, we are not going to go into anything that they haven't already had a chance to analyze prehearing. So, if that will offer some guidance in this proceeding, so be it.

MR. ROYALL: To make it clear, Your Honor, I have no intention of going into anything that they haven't seen.

JUDGE McGUIRE: Okay, well, that's what I'm trying to clarify here, what they had access to and that information they have not had access to, so information they have not had access to, we are not going to inquire.

MR. ROYALL: And just so Your Honor knows, I'm simply dealing with this in the same level of generality that it's dealt with in the 2002 annual report, and I'm almost finished with my questions on this subject.

JUDGE McGUIRE: Okay.

BY MR. ROYALL:

Q. Now, let me remind myself of the earlier question. Can we go back?

Now, the earlier question, Mr. Appleton, is do you have an understanding or an explanation as to why Micron has experienced losses in these amounts over four of the last five years?

A. I think it references, when we talked about earlier the volatility of the industry, the fluctuation in the selling price that's occurred, and that's directly related to, you know, the imbalance that's

occurred between demand and supply.

Q. Now, just before we leave this slide, the year 2000 was an exception in this what would otherwise have been a five-year string of losses for Micron. Is that correct?

A. Yes.

Q. And in that year, you did make a profit in the amount that's indicated on DX-114?

A. Yes.

Q. Is there any particular factor or set of factors that in your mind explains why that was a good year for Micron?

A. Well, in 2000, the supply was relatively short. I think that the -- if you look at the history of the business, it really just talks to how more competitive the business has become and how more volatile it's become, back to your earlier question. I mean, the fact that we've only had really one profitable year out of the last several is just indicative of the increasing competitive nature of the industry.

Q. Now, we've talked about -- a little bit about Micron's history, a little bit about the DRAM industry. Now I'd like to go back to the time period when you took over as CEO in 1994, I believe you said. Is that right?

A. Yes.

Q. Now, generally speaking, what was the state of your company as you viewed it in 1994 when you became the chief executive officer?

A. In 1994, we were -- we were coming out of what had been a downturn in '91 and '92. We were relatively stable at that point in time, but I think we could see the industry was consolidating and that we had, you know, a lot of changes that we needed to make going forward.

Q. Did you at the time that you became CEO of Micron believe that there were ways that the company could be better positioned for the future?

A. Sure, I think most CEOs, when they become CEO, they try to look at the company from a fresh perspective and then try to focus on things that they can do to improve going forward.

Q. Are there any particular initiatives or strategies that you sought to identify for Micron when you became the CEO?

A. We had -- we had, of course, lots of things that we were working on, but we had three or four -- I think maybe I could categorize them as core principles that we wanted to focus on.

Q. Well, perhaps you could identify those for me

and I can follow up and ask you about them.

A. Okay. One of them was innovation. I think we thought it was important to develop and own, you know, our own intellectual property.

The second one was really cost efficiency. We have already talked a little bit about that, how competitive the industry is.

A third one would have been really designing products to open standards, because we felt that's how we could get the greatest market penetration.

And then probably the final one would be the customer focus that was going to be required moving forward. We knew that the industry was changing, that customers were going to make a lot more demands on us, and as a result, we wanted to get closer to the customer, if you will.

Q. And when you identify these four things as core principles, are these, in fact, core principles that under your leadership Micron has sought to institute?

A. Yes.

Q. Now, taking the first principle that you mentioned, innovation, what specifically did Micron do in the years after you became CEO to focus on this core principle of innovation?

A. Well, we dramatically increased our R&D budget

year after year, independent of the market conditions, and by that I mean the research and development, so we continued to put more money into research and development, even though the industry continued to be volatile . If you were to look at the data, you would see that.

And then the second is that we made a pretty concerted effort to make sure we tried to capture all of the ideas, if you will, that Micron was developing in terms of -- it doesn't matter whether it was trademarks or patents or process know-how, we -- we focused on that as well.

Q. Now, if we could just very briefly pull up the last demonstrative exhibit, DX-114. You mentioned R&D expenditures, and I just wanted to connect that to the information on this exhibit.

Do you see in DX-114 the row of numbers identified as R&D expenditures?

A. Yes.

Q. And are the amounts that are identified here the amounts that Micron has actually spent on R&D expenditures in the years indicated?

A. Yes.

Q. Now, we talked earlier about the losses that Micron has experienced in recent years. Have those

losses caused Micron to pull back on R&D investment?

A. Well, they've limited our ability to maybe invest as much as we wanted to invest in research and development, but you can see from the data that our R&D expenditures increased by approximately seven times over that time period, and obviously our revenues didn't increase by that much. So, we obviously made it a priority for the company to continue to invest in research and development as much as we could.

Q. Now, you mentioned in response to an earlier question that in addition to R&D expenditures, that another area in which you sought to focus on this core principle of innovation related to I believe you said capturing your ideas.

Is that -- is that what you said?

A. That's correct.

Q. Can you explain to me a little bit more about what specifically you were referring to when you said that it had become a focus of your company to seek to capture your ideas or intellectual property?

A. Yes. Well, there's a variety of ways to do that. Of course, we've put processes in place trying to make sure that we were able to document the ideas that we were developing, and again, it could be trademark or it could be something of that nature.

Probably the most obvious one is in the patent arena, where we've put a lot of focus on making sure that we -- as we developed our own intellectual property, that we patent it.

Q. And is that something that benefits Micron or its business?

A. Yeah, absolutely.

Q. And how?

A. Well, if you -- if you think of the -- what that does for the company -- first of all, we use it as a defensible position to protect our IP, and then secondly, any time we have license negotiations, the stronger our own intellectual property and development that we have, the more favorable position that it puts us in.

Q. In your view, has Micron succeeded in your tenure as the CEO in terms of its efforts relating to this core principle of innovation?

A. I think our team's done a fabulous job.

Q. Let me -- we have one more slide relating to this, I believe. This will be DX-115.

(DX Exhibit Number 115 was marked for identification.)

BY MR. ROYALL:

Q. Do you recognize this slide, Mr. Appleton?

A. Yes.

Q. Can you explain to us what it is or what it shows?

A. This is a patent-ranking slide. I think what's probably significant about it is of all corporations in the world, not just semiconductor, but of all corporations in the world that apply for patents in the United States -- and I think most of us know that that's where they apply for them at -- and this includes companies that are 30 or 40 times the size of Micron, of all of these companies, Micron was number three in the world in receiving patents in 2002.

Q. Generally speaking, what has -- to your knowledge, what has Micron done to increase the size of its patent portfolio?

A. Well, we have really continued to innovate. I mean, we have really made a concerted effort to develop our technology and to make sure that we've captured that technology, and then as we've captured that technology, we apply for patents on it.

Q. Do you have a general understanding of the size of Micron's patent portfolio today?

A. Yes. We have approximately 10,000 patents.

Q. Do you know, roughly speaking, how many patents Micron has earned in a year's time in any recent year?

A. Well, the -- in 2002, I think it was about 1600 patents, and we're still on that pace for far into the future.

Q. Now, turning to the next core principle that you mentioned, which I believe related to cost or cost efficiency, can I ask you to explain what, if anything, in particular has Micron done since you have been the CEO of the company to focus on that core principle?

A. Well, we've done lots of things on cost around the company, but, you know, I think for some significant examples, we have focused on shrinking the technology -- and again, Your Honor, if you will bear with me for just a second -- when I talk about shrinking the technology, in our industry we primarily talk about the size of the technology in microns, and today we talk about in one-hundredths of a micron.

So, when I say we have gone from a technology of 0.2, I'm talking about 20/100ths of a micron, and as we shrink the technology, we have gone to .18 to .15 to .13 to .11, and essentially that's just trying to get to a smaller geometry.

Q. And is that something that helps you reduce cost?

A. It dramatically helps us to reduce costs, because it allows us to make these computer chips much

smaller. As a result, we get a lot more of these computer chips off of the same wafer.

Q. Does the timing of how quickly you complete the shrink process, does that timing effect your cost in any way?

A. Yeah, it used to be -- when I became CEO, the average time that it took to shrink one of these geometries was somewhere in the two to -- two and a half to three-year period as you made these transitions. Today, we make the transition in about half that time, sometime between 12 to 18 months.

Q. So, you mentioned that shrinking to smaller geometries is something that the company has done to reduce costs in the ten years you've been CEO. Are there any other areas that come to mind where you have made it a focus of attempt to reduce your costs?

A. Well, another significant area has to do with capital expenditures. You know, we spend approximately \$1 billion per year on buying new equipment, and we've tried to -- since that time, we've tried to make sure that we get more use out of that equipment in terms of its lifetime. So, we do what we call extend the useful life of the equipment so that we can maybe cover a couple of generations instead of just one.

Q. And what kinds of things do you do or does

Micron do to extend the useful life of equipment?

A. Yeah, there are two primary things. One is that we try to innovate on the process side so that we can get the next generation of equipment to be able to run really kind of a creative process. And then the second thing we do is we have actually modified the equipment, we have done a lot of things with the equipment to try to make it capable of doing a more advanced process.

Q. Are you familiar, sir, with the terms "evolutionary" and "revolutionary" as they are sometimes used in connection with the DRAM business?

A. Sure.

Q. What do those terms mean to you? And let me ask you to start with "evolutionary."

A. Well, most of us in the DRAM industry think of evolutionary as a process that goes forward on a change, if you will, of follow-on products that is relatively stable. There are changes that occur, but they're -- they're in a pretty normalized, stable fashion as you go forward, and obviously that's good, because it allows customers to adapt, it allows suppliers to adapt in what we consider to be an environment that's a lot more conducive on the cost side as we move forward.

Q. And what about the term "revolutionary," what does that term mean to you?

A. Revolutionary means that typically you're going to introduce something that is very, very different from what you've been doing. I think most of us describe it -- when you talk about manufacturing and development, most of us think of it as some type of disruptive technology, something that's really going to cause the organization to have to change.

Q. Does Micron have any preference or view as to whether it desires to see technology in this industry progress on a revolutionary basis as opposed to an evolutionary basis?

A. Sure, Micron's preference, of course, is to go evolutionary, because it's more stable for us, it's less costly for us, and we can more easily plan for it.

Q. Do you have any understanding as to what, if any, views Micron's customers have on that issue?

A. Well, customers in general would prefer to have an evolutionary process as well. It -- the changes don't just affect us, they affect the people we are selling the product to, and when you start talking about reliability of the device, reliability of the technology platform, reliability of the supply, it's also a much easier transition for them.

Q. Now, going back to the issue of extending the life of equipment, does this question of evolutionary versus revolutionary have anything to do with that?

A. Sure, I think it's just one subset of the total change that occurs when you manufacture these devices, and to the extent that you can -- you don't have to make some kind of disruptive, radical change to either the testing of the device or the packaging of the device. It means that you get to what we call re-use, you get to re-use the equipment more over a longer period of time than you otherwise would be able to.

Q. You've told us about the shrinking process, shrinking to smaller geometries, about extending the equipment life. Are there any other areas that have been a focal point for you and your company in terms of reducing costs?

A. Well, those have been on the operations side. I think that perhaps one that's not as often thought of but is just as critical would be on the SG&A side, which SG&A means sales, general and administration.

Q. And what, if anything, has Micron done in the area of -- I believe you said sales, general and administration to reduce its costs?

A. Yeah, SG&A -- we'll talk about sales for a second. When I became CEO, we predominantly sold our

product through what we call representatives and more distribution, distributors as we know them, but essentially that's a middle man, and we have now focused -- essentially all of our sales now go through a direct sales force. So, the cost of selling the product is actually less for us today than it was at that time because we've changed the model that we had.

Q. Have you done anything else in the area of SG&A expenses to reduce your costs in the past ten years that you've been CEO?

A. Yeah, we have -- the -- we focused on reduction of royalty expense in that time period.

Q. And what do you mean by "reduction of royalty expense"?

A. Well, when I became CEO in 1994, we were paying approximately 10 percent of our revenues in royalties, and we knew that going forward that that just wasn't going to work for the DRAM business model, it just wasn't possible to do that, and as a result, we focused on developing our own know-how, if you will, developing our own intellectual property, and we already talked about capturing that intellectual property so that we could reduce those royalty rates.

Q. You said that in your view, it just wasn't possible for Micron to continue paying 10 percent of

revenues in royalties. Why was that not possible in your view?

A. When you think of the -- how competitive the industry has become, which is more volatile, more competitive than it was in that time frame, and you think of what's happened to our profits, if you will, that's just -- that's just a very, very significant piece of the ability of the company to be profitable, and we -- we made a conscious decision, as I've already described, to put that into research and development and develop our own technology so that we wouldn't have the royalties that we had at that time.

Q. Well, you've explained the nature of the problem and the concern. I'm not sure that I understand yet what, if anything, Micron has done in your tenure as CEO to reduce the royalty expense.

A. I see. Well, we, of course, have gone through negotiations, future negotiations as we developed our own property, and as a result of that, our royalties today are very insignificant. Essentially they have gone from 10 percent of the company to an insignificant percentage of the company.

Q. Is it Micron's business strategy simply to refuse to pay any royalties at all?

A. No, that's never been the case.

Q. When you took over as CEO, was the company paying royalties linked to any specific products that you were producing?

A. No, all of the royalties that we have paid historically was for what we know in the industry as broad patent cross-licenses. The royalties that we were paying were associated with the entire semiconductor product, if you will. So, it didn't really matter -- it didn't matter what type of device we were making, and it didn't really matter whether we were using a particular process. The royalties were associated with a very broad patent cross-license.

Q. And do you recall to which companies Micron was paying royalties in that time period when you became CEO?

A. I can recall a few of them. There was Texas Instruments, we had some royalties that we were paying to AT&T, I think Hitachi was on that list, companies of that nature.

Q. During your tenure as the chief executive at Micron, has the company been successful in reducing this aspect of its costs?

A. Yeah, absolutely.

Q. Now, going back to your core principles, the next core principle I believe that you mentioned had

something to do with open standards. Do you recall that?

A. Yes.

Q. And can you explain to us, first of all, what you mean by the term "open standard"?

A. Well, open standards to us means that -- first of all, it's a standard that there's a large body of participants that works together to develop a standard that the industry is going to use on a platform moving forward. An open standard to me means that -- you know, to the extent it's possible, that it's royalty-free. It means that it's a standard-setting process whereby we participate.

When you contribute your ideas and you sit at the table with these other individuals and you develop this standard, that, you know, that you'll have relative freedom to operate and to design to that standard and get that product to the marketplace.

Q. And can you elaborate on how open standards have been a core principle for Micron?

A. Sure. You know, we -- in the DRAM industry, history will show that the adoption of DRAM is -- has been very much affected and directly affected by the ability of the customers to rely on an open standard. In other words, the more open it is, the more supply

there is, the more they can -- they know what the platform is going to be as opposed to some kind of custom device. Then they're able to plan much better in order to adopt that product.

And history will show that the standard devices, the devices that are designed to the open standard, achieve much greater penetration than any of these other products, any of the other maybe specialty DRAMs or something that's a little more customized.

Q. And is it that expanded penetration that causes Micron to benefit from open standards, or is there some other way in which you benefit?

A. Well, we -- well, we benefit because of that, but we also benefit because the -- when you think of it from the customer's perspective, they're able to consume the product -- and it's even beyond just the computing industry. Other companies can look at the standard that's been established even for the computing environment, and they then can rely on that device, and there's not extra cost to develop something else beyond that. So, it's really beneficial for a customer base that's maybe beyond what was even intended -- initially intended to be thought of.

Q. Well, just to follow up on that, you talked earlier about cost reductions. Does this commitment or

core principle of open standards play into or influence in any way your ability to reduce your costs?

A. Well, sure. You know, our costs are a direct reflection of kind of the critical mass in the industry, if you will, that's put the -- that's put behind developing, you know, a particular type of product. There's a lot of ideas that are shared as a result. Of course, we can look at all of that in a cumulation and save on resources. We can save on resources that would otherwise be required to come up with a device.

Q. We've touched in passing on JEDEC. Let me ask you, do you consider JEDEC to be an open standards organization or open standards process?

A. Yes.

Q. And why?

A. Well, it really I think is -- you know, it really talks about a process whereby you have customers and you have competitors who are getting together to talk about trying to develop a standard that we can all use, and in that process, you -- you believe it would be open, because when you're participating in that process, you're sharing your ideas. You're sharing your -- your, so to speak, thoughts on the standard, on how it might best be developed, and as a result of

that, you have an expectation that when you leave that table -- you're all sitting around together talking about these things, and when you leave that table, that it will be an open standard, that you'll all be able to use it, that somehow somebody is not going to come back later and try to either block or inhibit you from using that standard who has participated.

JUDGE McGUIRE: Okay, that's enough.

BY MR. ROYALL:

Q. Going now to the final item on your list of core principles, which I believe you said had something to do with focus on customers, do you recall that?

A. Yes.

Q. And can you elaborate on what you meant by that?

A. Yes. The industry is slowly changing over time. I think customers are looking for, you know, better and better solutions, and in order for us to be able to do that, we have to get much closer to them, and so we actually reorganized the company to be organized by applications and customers as opposed to being organized by product. So, we have groups -- our groups are very specifically organized to markets and applications and those customers in them.

Q. Do you, Mr. Appleton, in your capacity as CEO

of Micron personally interact with Micron's customers?

A. Yes, I often do.

Q. How often?

A. Typically it's -- it can vary, but it's going to be anywhere from a couple times a week to, you know, maybe five times in a month or so, but pretty often.

Q. And what is the general purpose of your personal interactions with Micron's customers?

A. It can be pretty broad. It can vary all the way from, you know, we're discussing whether we're going to be able to supply product, the products that they're going to consume. We talk about, you know, how close the companies are, where the problems are in the relationship, things of that nature.

Q. Does the interaction between Micron and its customers have anything to do with alignment or coordination?

A. Sure, we -- it has a lot to do with alignment.

Q. Can you explain how?

A. Well, usually Micron has a product roadmap that we're pursuing, and obviously it needs to be in alignment with the customer roadmap. So, as we meet with these customers, we talk about the products that we're continuing to develop and build, and then the customer talks about the products that they're

intending to use, and for obvious reasons we need to make sure that those are very well aligned.

Q. You mentioned the term "roadmap." What is a roadmap?

A. Sorry. A roadmap -- a product roadmap essentially defines the types of products that you're going to manufacture, whether synchronous or DDR or something else, and it talks about the time frame in which those products are going to be introduced to the market.

Q. Does Micron share roadmaps with its customers?

A. Yes.

Q. Do Micron's customers share their roadmaps with Micron in some instances?

A. Yes.

Q. And does this sharing of roadmaps have anything to do with the alignment and coordination that you touched on a minute ago?

A. Yeah, it has a lot to do with it.

Q. And how is that?

A. Well, the roadmap sharing gives us a lot of insight as to where their products -- what products they have and what quantities that those products are going to have and what they need for products that they're going to manufacture, and the sharing of it

allows us to make sure that we're in sync, that we don't come up with the wrong device from what they are going to buy.

Q. In your experience, do the roadmaps of Micron's customers tend to remain constant over time, or do they change?

A. The roadmaps are constantly changing as to timing, volume, products that are going to be introduced, because obviously the industry is changing -- our industry changes all the time.

Q. And do you have a sense of what types of factors can influence changes in your customers' roadmaps?

A. Well, there's -- sure, I mean, you can -- the consumer behavior often changes. When they thought a particular product was going to be a platform, a product was going to be adopted, it's often not. Sometimes the technology is just very difficult, it's not available when they thought it would be available. And sometimes the manufacturers just simply don't have the wherewithal or the capacity or something in that chain in order to be able to produce the product when the customer needs it. So, it creates a change in the roadmap.

Q. Generally speaking, how far into the future do

Micron's roadmaps extend?

A. Several years. Our roadmaps typically go out several years as we try to align with the customer.

MR. ROYALL: Your Honor, may I approach?

JUDGE McGUIRE: Yes.

BY MR. ROYALL:

Q. Mr. Appleton, I've just handed you a document that's been marked for identification as Exhibit CX-2742. Do you recognize this document?

A. Yes.

Q. Can you explain to us what it is?

A. Let me quickly take a look here. (Document review.) This is a document that is one type of roadmap that we use when we talk to customers. We use it internally as well. This is typical of a document that talks about roadmaps and products on those roadmaps.

Q. And generally speaking, can you explain or characterize for us the type of information that's reflected in this type of Micron roadmap?

A. Sure.

MR. STONE: Your Honor, I object. There has been no foundation that Mr. Appleton has seen this document before.

JUDGE McGUIRE: Sustained.

BY MR. ROYALL:

Q. Have you, Mr. Appleton, have you seen this document before?

A. Yes.

Q. And in what capacity or for what reason did you have occasion to review this document?

A. Well, I'm often in these meetings that would use these documents at customers, so I've seen this document and other documents like it that describe roadmaps.

Q. Now, going back to the earlier question, very generally speaking, can you just explain to us the nature and type of information that is conveyed in this type of Micron roadmap?

A. Well, we talk about the -- we're describing here the introduction of products, in particular the type of device, whether it be a synchronous DRAM or some other type of device, and we talk about the timing at which we intend to introduce the device into the market.

Q. And is that information that's important for Micron's internal business purposes?

A. Yes.

Q. Why?

A. Well, we need to -- it's both internal and

external. Internally we have to make sure that we're also aligned and everybody in the company knows where the roadmaps are and where we're headed and the products that we're planning to introduce.

Q. And if I haven't asked you this already, is this the type of roadmap or one type of roadmap that Micron shares with its customers?

A. Yes.

Q. And what is the purpose for sharing this particular type of roadmap with customers?

A. To -- going back to the question about alignment, we want to make sure that our products are aligned and that they give us feedback on this roadmap as to what their desires are for products they're going to consume.

Q. Now, this document, CX-2742, is dated, as you can see on the first page, July 1999.

Do you see that?

A. Yes.

Q. If this were a current roadmap, would the type of information that's reflected in this roadmap be considered to be confidential and proprietary within Micron?

A. If you can bear with me, I just haven't looked at every page here. (Document review.) In general,

this is information that would be shared with the customer, and this information -- I'll just make the caveat. If there were customer information on it, then we might consider it confidential, but if it were Micron information, roadmap and product introduction, then we would not.

Q. Now, let me ask you quickly about one of the pages in this document, page 10 of Exhibit CX-2742, which has the heading Notebook at the top of the page.

Do you see that?

A. Yes.

Q. And you'll see a reference on that page to RDRAM, DDR, SDRAM. Do you see references to those terms on that page?

A. Yes.

Q. Now, by referencing those terms on this page, is Micron conveying or does the document convey that at the time that this roadmap was created, that Micron was either producing or had plans to produce all of the different types of DRAM products that are reflected here?

A. Yes.

Q. And in meeting with customers and discussing this type of document, would it be customary for Micron to solicit input on the various types of DRAM options

that Micron had in these roadmaps?

MR. STONE: Objection, leading.

JUDGE McGUIRE: Overruled.

THE WITNESS: I'm sorry, could you repeat that?

BY MR. ROYALL:

Q. The question was whether in meeting with customers and discussing this type of document, would it be customary for Micron to solicit input from the customers relating to the various types of DRAM options that Micron had in its roadmaps?

A. Sure. I mean, that was the -- one of the intents of sharing the roadmap, is to get their feedback on it.

Q. And after receiving customer input on a roadmap such as this, what generally speaking would Micron do with that customer input?

A. Well, we would take the input, we would internalize it, discuss it inside the company as to the feedback, could be positive, could be negative, could be either way. In either case, we would take that into consideration for our future product roadmap.

Q. Now, you talked a little bit about efforts to follow customer needs or to solicit customer input. By that do you mean that Micron never seeks to advance or promote to customers an option that Micron itself

believes makes sense from the standpoint of DRAM production?

A. No, I think it's an interactive process. We've often promoted what we thought was the best solution in the industry to the customer as opposed to what maybe they thought was the solution.

Q. Are there any particular examples that you can think of of instances in which Micron has sought to advance or promote a given DRAM design or technology to its customers?

A. Well, when we had, you know, developed and invented burst EDO, we were trying to promote that to the customer. We felt that was a better solution for the time frame as opposed to synchronous DRAM.

Q. Let's be clear. You mentioned time frame. What time frame are you referring to?

A. That one was -- the time frame on -- boy, that goes back quite a ways, but I am going to guess it was in the, you know, early to mid-nineties.

Q. And what is or was burst EDO?

A. It's extend -- it's burst extended data out. Essentially it was an attempt to get the data out of the DRAM faster.

Q. Was it a type of DRAM design?

A. Yeah, it was a type of DRAM design.

Q. And did you say that Micron promoted the burst EDO design to customers?

A. Yeah. It was -- as I think about this, it had to be pretty early. It was probably -- maybe it was '90-ish -- I can't remember exactly the time period, but it was pretty early on.

Q. And what was Micron's purpose in promoting that particular DRAM option to customers?

A. Well, we thought it was the best solution. We thought that it was the best solution. We thought it was a lower cost solution than moving to synchronous DRAM at that time, and we tried to get it -- we tried to get the customer to buy in.

Q. Was the burst EDO solution something that Micron had to develop itself?

A. Yes.

Q. Was it ever, to your knowledge, standardized by JEDEC or any other organization?

A. To my knowledge, it never was.

Q. Did Micron ever manufacture burst EDO?

A. We -- we only sampled burst EDO. We never manufactured it.

Q. Can you explain, just so we're clear, what you mean by the term "sample"?

A. Oh, I'm sorry. When I say "manufacture," I

mean we would take it into volume production. When I say "sample," it means we produced working devices of it, even though it might not have quite been in its final form, but we sent it to a customer to evaluate.

Q. And it's in that latter sense, the sampling sense, that you did produce burst EDO. Is that right?

A. Yeah, that's what I'm talking about, yeah.

Q. Did you ever go to volume production with burst EDO?

A. No.

Q. Why not?

A. Well, it turned out that the -- you know, we have obviously our opinions, and we promoted it to the customer, but at the end of the day, the customer decides what we build, and the customer decided they weren't going to adopt that platform. They didn't think it was a solution that addressed some of their longer term desires, and as a result, they elected not to adopt it as a platform.

Q. Do you recall whether at the time that Micron was working with burst EDO, whether it was working on other DRAM options as well?

A. Sure. We were working on others.

Q. Do you recall what other options Micron was working on in the same time period as it was working on

burst EDO?

JUDGE McGUIRE: Are you talking about in terms of its IP when you say what other options it was working on?

MR. ROYALL: I can be more clear, Your Honor.

BY MR. ROYALL:

Q. At the time that you were sampling burst EDO and talking to customers about burst EDO in the early nineties I think you said, in that time period, was Micron working on developing other types of DRAM besides burst EDO?

A. Well, yeah. To be clear, the -- you know, there are a variety of products that have existed in the DRAM industry, and developing one of them has never really been a situation for us. We -- it wasn't just burst EDO. Of course, we were continuing to try to extend the EDO life. I think there were some earlier work, something that we had called RamLink.

Obviously synchronous DRAM was coming into the picture. We were trying to do some work on synchronous DRAM. So, we were -- we were trying to make sure that we continued to work on, you know, the various products that may get actually adopted by the customer.

Q. And are you saying that in the time period that you were promoting burst EDO to customers in the early

1990s, that simultaneously you were also developing these other types of DRAMs that you mentioned?

A. Yes, we wanted to be prepared for whatever the market eventually adopted.

Q. And why is it that -- just to take that time period as an example -- Micron would be pursuing multiple different types of DRAM or developing multiple different types of DRAM at one time?

A. Well, at the end of the day, we don't decide what the customer buys. The customer is going to decide what they want to buy, and we needed to make sure that whatever became the customer's choice of product, that we were in a position to be able to supply it.

Q. Are there instances in which Micron designs a type of DRAM product but ultimately doesn't go to volume production? I think you've said, actually, that burst EDO was an example of that. Is that right?

A. Yes.

Q. Are there other examples that you can think of?

A. Ah, we -- we didn't go to volume production on SyncLink. We didn't go to volume production on Rambus. Those are a couple of examples.

Q. But SyncLink and Rambus, these are types of DRAMs that you did do design work on but ultimately did

not go to volume production on. Is that what you said?

A. Yes.

Q. Now, let's take SyncLink. Why is it that after committing design resources to SyncLink you ultimately did not -- Micron ultimately did not go to volume production on that product?

A. Well, once again, the customer simply decided that they weren't going to buy it, that that was not going to be the platform that they adopted in any volume, and as a result, we didn't move it into production.

Q. Let me ask you the same question with respect to Rambus DRAM.

A. For RDRAM, it depends on the timing as to what the customer feedback was, but when the -- when the platform first came up -- anyhow, we ultimately didn't take it into production because it didn't become -- it didn't get adopted by the market in a large percentage, and as a result, we didn't take it to volume production.

I didn't want to ramble, just wanted to give the answer.

Q. Now, with respect to burst EDO, I think you've said that that was an option that Micron did advance or promote with its customers in the early 1990s. Is that

right?

A. Yes --

Q. Can you --

A. -- in that time frame. I don't remember exactly when that was.

Q. Can you think of any other examples of DRAM options or types of DRAM other than burst EDO that Micron has sought to promote with customers?

A. Well, we've promoted SyncLink, we've promoted RDRAM, which I've already mentioned, and we've promoted essentially a variety of products over time, some of them going into production and some of them not.

Q. Are there any instances in which to your knowledge Micron has ever expressed concerns or reservations to customers about a given DRAM option or type of DRAM?

A. Yes.

Q. Can you give us an example of an instance in which Micron, to your knowledge, has expressed such concerns to a customer?

A. Well, when we were promoting the burst EDO, as I mentioned before, we -- we had concerns that synchronous DRAM -- about synchronous DRAM in a couple of different aspects, and we voiced those to the customer.

Q. What types of concerns are you referring to?

A. Well, we didn't believe it was the most cost-effective solution at that time, for that time period, and so -- and we also believed that it would take a more difficult transition to go to the synchronous DRAM than it would be to move to burst EDO, because when we talked earlier about kind of an evolutionary process, we thought it would be a more stable environment to make that smaller change, if you will, as we moved forward.

Q. And is it the case that despite expressing such reservations to customers about SDRAM, that Micron nonetheless did proceed to produce SDRAM in volume?

A. Yeah, the -- despite our concerns about synchronous DRAM, the market adopted it, and we -- we ultimately produced that product.

Q. In your experience, do -- do Micron's customers solicit from the company any concerns or reservations that you may have about a given DRAM product?

A. Yeah, they -- they do it often.

Q. Do your customers always agree with Micron's concerns or reservations when you do have such reservations?

A. No.

Q. Are you aware of any instance in which Micron

had a specific concern or reservation about a DRAM product and withheld that information from its customers?

A. No. We have an honest relationship with our customers, and we tell them what we think.

Q. And do you regard that to be something that's important to Micron?

A. Well, we think it's critical. We think we have to develop a relationship where they trust us. Again, we may not always agree, but they know that we're going to tell them what we think.

MR. ROYALL: Your Honor, I'm at a convenient breaking point.

JUDGE McGUIRE: Okay.

MR. ROYALL: I don't know whether we want to break for an early lunch or break and come back, but --

JUDGE McGUIRE: Well, let me ask you a question. How much more time do you intend to spend with this witness under direct examination? Just give me a ballpark.

MR. ROYALL: I expect it will be about an hour and a half.

JUDGE McGUIRE: Why don't we take just a quick break, ten minutes, then we'll return.

Then is there a point after the break where,

you know, you can -- I won't expect you to inherently go until 2:00 and then we'll break for lunch. I mean, are you advising the Court that at this point you think this would be the time we should break for lunch?

MR. ROYALL: Well, if others -- I didn't have breakfast, so I'm happy to break for lunch now, but if others --

JUDGE McGUIRE: That's not relevant.

MR. ROYALL: I understand. I do think it would be -- the amount of time that I have left is the amount of time we would normally go between breaks, so from my standpoint, it might make sense to break for lunch now.

JUDGE McGUIRE: All right, because we got off this morning -- you know, it's not the early start that we have typically, is an hour adequate today for lunch?

MR. STONE: Certainly from our perspective, Your Honor.

MR. ROYALL: Yes, Your Honor.

JUDGE McGUIRE: Let's break, and we'll return at 1:00 p.m. .

(Whereupon, at 12:00 p.m., a lunch recess was taken.)

AFTERNOON SESSION**(1:00 p.m.)**

JUDGE McGUIRE: This hearing is now in order.

At this point, complaint counsel may continue with its examination of the witness.

Mr. Appleton, would you please take a seat on the stand again?

MR. ROYALL: Thank you, Your Honor.

BY MR. ROYALL:

Q. Mr. Appleton, I'd like to now turn more directly to the subject of JEDEC.

Is Micron a member of JEDEC, to your knowledge?

A. Yes.

Q. And to your knowledge, has Micron been a member of JEDEC throughout your tenure with the company?

A. I don't recall if it was always a JEDEC member, but it was a JEDEC member when I became president in '91, and we have been since then. I don't remember the timing as to when we became a member before that.

Q. And in your capacity as Micron's CEO, have you been supportive of Micron's participation in JEDEC?

A. Yes.

Q. In your view, does Micron benefit from participation in JEDEC?

A. Yes.

Q. And I don't want to recover any territory that we covered earlier about open standards, but is there anything in particular that causes you to say that --

JUDGE McGUIRE: You know, I think we have gotten into this already, Mr. Royall.

MR. ROYALL: That's fine, Your Honor.

BY MR. ROYALL:

Q. To your knowledge, do any of Micron's customers participate in JEDEC?

A. Yes.

Q. And does the fact that you have customers participating in JEDEC, is that something that's of value to Micron?

A. Yeah, it's of a lot of value.

Q. How familiar are you with JEDEC-related activities and procedures? How familiar are you personally with those things?

A. Well, I have a general understanding of how JEDEC operates. I am -- you know, I'm not involved in the details, though.

Q. Have you ever attended a JEDEC meeting?

A. No.

Q. Have you, to your knowledge, ever reviewed minutes of a JEDEC meeting?

A. No.

Q. To the extent that you have general knowledge about JEDEC or JEDEC-related activities, what's the basis of that knowledge?

A. It's the people that we have had who have either been members or representatives from Micron or attendees at the JEDEC meetings who have communicated to me over the years, you know, the variety of activities that have gone on there.

Q. Do you have anyone in particular in mind?

A. Oh, it was usually -- there's probably two or three people that have been fairly consistent. An individual by the name of Terry Walther I know went to JEDEC meetings, a guy named Terry Lee has attended JEDEC meetings, and there was a few -- some of the marketing management people have attended those meetings. And they've -- and I have had interaction with them about that at times.

Q. In your capacity as the CEO of Micron, do you regard it as important in any way for you personally to be informed of JEDEC-related developments?

A. I think at a high level, that's true. I need to be -- I need to understand what the organization is doing.

Q. And why is that?

A. Well, because Micron's a participant, and as we

participate in JEDEC, we -- we disclose, you know, ideas and we work with customers through that body to try to develop a standard, and so to the extent that the activities there would have an impact on that process, we want to know about it.

Q. And do you in the regular course of business do anything to stay abreast of JEDEC-related developments at that level of generality?

A. Yeah.

Q. What do you do in that regard?

A. Well, again, it's through the dialogue with Micron employees. I am -- you know, at times I ask what the activities are and what's being worked on at JEDEC, or they might even come on their own to me if it's something that's of significance.

Q. In your view, is it important for you as Micron's CEO to have an understanding of JEDEC's purposes?

A. Sure.

Q. Why is that?

A. Well, the purpose of JEDEC -- there are I suppose a couple of purposes, but the purpose of JEDEC often very much affects their activities; affects, you know, Micron's involvement to the extent that we want to participate.

Q. And do you personally have an understanding of JEDEC's purposes?

A. Yeah, I have a general understanding.

Q. And what is that understanding?

MR. STONE: Objection, Your Honor, based on hearsay, not based on any personal knowledge, lacks foundation.

JUDGE McGUIRE: Overruled.

BY MR. ROYALL:

Q. You may answer.

A. My understanding from my interaction and participation over the years in JEDEC is that its purpose is to develop an open standard that companies and customers would have access to in order to develop their products to.

Q. Now, I, again, don't want to recover ground we covered earlier, but I believe you said earlier that it's your understanding that in the sense that you used the term "open standards," that JEDEC is an open standards organization. Is that right?

A. Yes.

Q. Do you have an understanding as to whether JEDEC does anything to ensure that its standards are open?

A. I think I have a general understanding of how

they approach that.

Q. And what is your understanding in that regard?

A. Well, it's -- it's I think fairly straightforward. JEDEC tries to make sure that the participants that are sharing their knowledge with the body that's there and the customers who are there, they try to make sure that as the standard gets developed, that -- and the sharing of knowledge, that we somehow wouldn't be able to come back later and try to apply some intellectual property that either came out of that meeting or that applied against it that we didn't disclose anything to them about it, that we would somehow try to come back later and use that against the standard.

Q. Do you -- do you have any understanding personally, Mr. Appleton, as to whether there are implications for member companies -- that is, members of JEDEC -- that fail to disclose patents or patent applications that relate to JEDEC's work?

A. Well, one understanding is that if they fail to disclose them, then they wouldn't come back later -- they couldn't come back later and try to enforce those against the standard that had been developed.

Q. Putting aside what JEDEC's rules and procedures may, in fact, require, do you have -- do you as

Micron's CEO have any views as to the approach that your company, Micron, should take to patent disclosure issues at JEDEC?

A. Sure.

Q. What views do you have in that regard?

A. Well, my perspective is the same, that if we have intellectual property that would be applicable against a standard of JEDEC that we were helping to develop, that we should disclose that.

Q. And in instances in which Micron may not have disclosed, if there are any such instances, do you have any views as to what implications that may have for your company?

A. I don't know of any instances, but if that were to occur, we certainly -- my view is we certainly wouldn't go out and then try to enforce that against the standard.

Q. Well, just to be clear, are you aware of any instance in which Micron has failed to disclose any patent or patent application that was subject to disclosure under JEDEC's rules and procedures?

A. No, I'm not.

Q. Are you aware of any instance in which Micron has sought to enforce a patent that should have been disclosed but was not disclosed to JEDEC?

A. No, I'm not.

Q. Does it matter to you, Mr. Appleton, whether other companies other than Micron who participate in JEDEC disclose their own relevant patents or patent applications when that would be required under JEDEC's process?

A. It matters a great deal.

Q. Why does that matter to you?

A. Well, because of the consequences that I described earlier. If, in fact, somebody who was participating in developing the standard and we were all sharing our ideas at the same table would then -- did not have an obligation and then would try to enforce some intellectual property and then tell us about it later against that standard, then I think it brings into entire question the process that we're using to develop the standard, and it would very much affect whether Micron participated or not.

Q. What do you mean by saying that this could affect whether Micron participates in JEDEC or not?

A. Well, if we -- if we didn't know that -- I mean, this destroys the whole process of developing an open standard. If we didn't know with confidence that companies that were participating in that process, that they couldn't come back later and then try to block it

or come back later and try to apply intellectual property against it when they were a participant in that process and they didn't disclose it, that's very problematic for that process, because it means that it essentially destroys the ability to set a standard, that there's very little value in actually going through that process anymore.

Q. Let me shift gears now away from JEDEC to another topic, and that topic is Rambus.

When do you recall first learning about or hearing about Rambus?

A. It was -- it was around the 1996 time frame.

Q. Do you recall how you first learned about Rambus?

A. Well, we had -- we had some technical folks that had become aware of it, and I'm not sure how they became aware of it, but they became aware that there was a company, and it was called Rambus, that was developing some interface technology, the RDRAM technology, for DRAM.

Q. Do you recall anything specifically about what you initially heard when you became familiar with Rambus and the fact that it had an interface technology of that sort?

A. Yeah, in general. The discussion was the --

was the -- you know, the speed with which data could be moved in and out of DRAM, that their -- that Rambus said that they had some pretty high-speed capability in that arena, and you know, we're I think always interested in trying to address any of the problems that may be downstream.

And so our technical people brought it to me. They mentioned it to me and said that there was this company that was out there developing it.

Q. Do you recall learning about any specific performance-related claims that Rambus was making? And again, I'm focusing you on the time period -- and you said around '96 when you first became familiar with Rambus.

A. I don't remember the megahertz speed at the time, but you know, I seem to remember at least early on in that time frame we were talking, you know, 200 megahertz, 300 megahertz, 400 megahertz type activity, and that the claim was the speed -- and that has to do with really the bus speed, but it's -- there's more technical people than I am to try to discuss that.

Q. What about -- putting aside performance, when you learned about Rambus, did you have an understanding as to whether Rambus in connection with its own interface technology was making any cost-related

claims?

A. Well, there were -- in terms of cost, Rambus was saying at that time that there wouldn't be much of a premium for the -- for the product in comparison to other solutions that existed.

Q. At the time that you learned about Rambus, do you recall whether Micron, others at Micron, had any views as to the merits of Rambus' claims, either performance-related claims or cost-related claims?

A. Well, obviously we were very interested in looking at the speed issue. I think that we met it with some skepticism, predominantly because we -- you know, Rambus didn't make anything. They didn't make any product, and Micron had had years and years of experience in manufacturing. So, the performance claim was one issue which we knew would be a challenging issue to overcome.

But secondly, the claim that the -- that the --
--
it would be a very cost-effective solution as opposed to other routes, I think we had skepticism. We had a lot of experience manufacturing these products, and for that reason, we were skeptical.

Q. You mentioned in that answer something about Rambus didn't make anything. What, if any, relevance did that have to Micron's assessment of Rambus'?

performance or cost-related claim?

A. Well, with respect to the claims, you know, there's a lot of things that go into producing DRAM, and we -- when I say they didn't make anything, they didn't actually produce any DRAM, and really it was the manufacturers that were having to deal with how this technology would be implemented.

Q. Did there come a time when you personally were contacted by Rambus?

A. Yes.

Q. Do you recall, roughly speaking, when you were first contacted?

A. It was -- I believe it was later in 1996.

MR. ROYALL: May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. ROYALL:

Q. Mr. Appleton, I've just handed you a document that's been marked for identification as Exhibit RX-828. Do you recognize this document?

A. Yes.

Q. And can you explain to us what it is?

A. This is a letter that I received from Geoff Tate in December of 1996.

Q. And do you recall whether this was the first communication that you received from Rambus or whether

there were other prior communications?

A. I don't recall if I had any verbal conversation with Mr. Tate around this time frame, so anything that would have been in this time frame, I think this was the first written communication that I had received from him. Whether there was some conversation prior to that around this time frame, I don't recall.

Q. At the time that you received this letter from Mr. Tate of Rambus in late 1996, did you have an understanding as to what, if anything, Rambus was proposing or seeking from Micron?

A. Yeah, my understanding was that they were -- they approached Micron to take a license to the RDRAM.

Q. And when you say RDRAM, are you referring to -- if we could highlight this, you'll see in the -- after the four bullet points at the top of the first page of RX-828, do you see the sentence beginning, "Our list price"?

A. Yes.

Q. And in that same sentence, a few words later, there's a reference to "direct Rambus DRAM."

Do you see that?

A. Yes.

Q. And when you said earlier that they approached -- Rambus approached Micron to discuss

taking a license, was the license that they were discussing with you, was it a license for that direct Rambus DRAM technology?

A. Yeah, I -- just to clarify, I think when we talk about Rambus DRAM, this is I think the name that Rambus used for it, which was the direct Rambus DRAM, the RDRAM it got commonly known as.

Q. Do you recall what, if anything, you did in response to this letter from Mr. Tate?

A. Well, we -- we obviously discussed it internally among our team and -- and just really started to evaluate what was being offered here.

Q. Do you recall what, if anything, was said or discussed in these internal meetings relating to Rambus?

A. Well, we thought -- when we went through the discussion, we thought the royalty rate was quite high. We thought the NRE package, the nonreoccurring engineering charge, was high. To us it looked exorbitant. It was just pretty high cost.

Q. When you say that you thought the royalty rate was high, do you see reference to the royalty rate in this letter --

A. Yeah.

Q. -- from Mr. Tate?

A. Yes, I do.

Q. Can you point us to that?

A. Well, it -- there's an implementation package of \$9.25 million and a royalty rate of 2 percent.

Q. And you said that Micron thought that these licensing terms were high. Is that what you said?

A. Yes.

Q. Why did Micron have that view, if you recall?

A. Well, in comparison to -- first of all, as I had mentioned earlier in my testimony, Micron's royalty rate today is essentially insignificant as a result of all the work that we've done over the years, but when you talk about what is actually being described here as DRDRAM, you're talking about an interface technology.

It's such a minor -- it's a very small part of what's actually required to produce a DRAM. It's a very small part of intellectual property that exists -- I mean, a tiny part of the intellectual property that exists to actually manufacture a DRAM, to develop a DRAM, and so that's why we thought it was high. It was just a very small piece of what was required in total to produce one of these products.

Q. But Micron had paid royalties relating to DRAMs in the past, that is, prior to 1996, hadn't it?

A. Yes.

Q. Why was -- why was this or what about this request on the part of Rambus for royalties was different, if anything, from the sorts of royalties that Micron had paid in the past?

A. Well, if you look at the royalties that we had paid historically, they were associated with broad cross-licenses, and in fact, I had mentioned Texas Instruments as one of the companies that we had paid royalties to. You know, Texas Instruments was credited with essentially inventing the semiconductor, and they had thousands and thousands of patents, and they covered all sorts of things that were going on in the semiconductor manufacturing industry, and even in that case we felt those royalties were high, and we continued to work to develop our own technology and reduce those over time.

And as we moved through time, by the time we started looking at royalty rates of this nature, we thought it was high because we knew we had been doing a lot of work ourselves.

Q. At the time that you received this letter in late 1996, had Micron, to your knowledge, ever paid a royalty to a company specifically relating to patents covering a memory interface technology?

A. No.

Q. Have you since?

A. No.

Q. Now, you mentioned that after receiving Mr. Tate's letter, there were internal discussions within Micron and that one of the upshots of those discussions that you recall was a general view that the -- that the licensing terms that Rambus was seeking were high.

Do you recall anything else being discussed in those initial discussions in the aftermath of receiving this letter from Mr. Tate?

A. Well, we thought it would be difficult, because essentially the discussion here is that we would not work on any other high-speed development devices, and you know, for us, we -- we didn't think that was a viable option, and as a result, we talked about the implications of that within this letter.

Q. Well, let me ask you about that. You mentioned other high-speed development devices, I think, is that what you -- is that the term you used?

A. Yes, yes.

Q. And by that, are you referring to other types of DRAM technology other than direct RDRAM that offered some type of high-speed performance?

A. Yeah, the -- in the letter itself, it says high bandwidth DRAMs, but essentially they're talking about

the same thing.

Q. Now, in this time period, late 1996, putting aside direct Rambus technology, were there other high-speed DRAM technologies that Micron was considering or was in the process of developing?

A. Yes.

Q. What other technologies are you referring to?

A. Well, we were -- there were a couple. One was to get the synchronous DRAM to a higher speed. In this letter, it references 100 megahertz, and we were working on trying to get that particular device to a higher speed.

We were working on what we had termed as SyncLink. We were working on SyncLink to develop it as a potential high bandwidth device as well.

Q. Well, taking the first device that you mentioned, synchronous DRAM, did -- did Micron in this time period, late 1996, to your knowledge believe that synchronous DRAM -- the synchronous DRAM that existed in that time frame was extendable to future higher performance levels?

A. Yeah, Micron did.

Q. Do you know whether that view was shared by others in the DRAM industry?

A. I think that there were some that believed it

and some that did not believe it.

Q. Do you know of any other companies that had -- as you recall, that had expressed views to the effect that they did not believe that synchronous DRAM could be extendable to higher performance ranges?

A. Well, the -- I mean, there's no question, I had conversations with -- around this time frame with Mr. Tate, and they didn't believe -- Rambus didn't believe that the -- that the synchronous DRAM could go up to higher speeds.

Q. Now, with respect to these other high-speed DRAM options besides direct Rambus DRAM that you were considering in this time frame, did you have an understanding as to whether Rambus in this letter or otherwise was asking Micron to do anything with respect to those other alternative DRAM options?

A. Yeah, Rambus was requesting that we stop work -- stop all work on any of those other alternatives.

Q. And do you see anything in this letter, Mr. Tate's December 10 letter, December 10, 1996 letter to you, that relates to that?

A. Yes, if you -- it's the second full paragraph on that page where it starts, "But if Micron," and as you read that sentence, it says if -- "to take a

further commitment to put 'all your wood behind one arrow,' with Rambus as your sole effort for high-bandwidth DRAMs."

Q. And can I ask you, what did you understand Mr. Tate was asking through that language that you just read?

A. He wanted us to stop work on any other development for high bandwidth DRAMs.

Q. And do you recall how Micron responded to that proposal?

A. We -- we responded negatively in our internal discussions that, you know, never in our history had we eliminated the potential development of platforms that may become adopted, and so we wanted to make sure that we kept our alternatives open, because after all, as I mentioned before, the customer decides what product is going to be consumed, and we just simply couldn't limit ourselves to one path.

Q. At some point in time, Mr. Appleton, did you learn that Intel had endorsed Rambus' direct RDRAM technology?

A. Yes.

Q. Do you recall when you learned of that?

A. It -- it was sometime after I received this letter and before we actually engaged in negotiations

with Rambus to obtain a license.

MR. ROYALL: Your Honor, so I don't forget and before I go any further, I would like to offer at this point RX-828.

JUDGE McGUIRE: Objection?

MR. STONE: None, Your Honor.

JUDGE McGUIRE: Entered.

MR. ROYALL: Thank you.

(RX Exhibit Number 828 was admitted into evidence.)

BY MR. ROYALL:

Q. Do you recall, Mr. Appleton, what, if any, reaction you had when you learned that Intel had endorsed Rambus' direct RDRAM technology?

A. We were surprised that they did, that they would endorse it and limit the path, but nonetheless, they did it, and we had to accept that they did endorse it.

Q. Why were you surprised?

A. Well, because we thought that there were better alternatives to pursue, there were other alternatives, and we were surprised, given the outline -- what's described here, which I think others knew in terms of terms, that it would be a relatively high cost to the DRAM industry to do it.

Q. Did your knowledge about Intel's endorsement of the direct RDRAM technology have any impact or influence on the extent to which you were willing to consider licensing the RDRAM technology from Rambus?

A. Yes.

Q. And how did that impact or influence your thinking in that regard?

A. Well, once Intel endorsed the RDRAM, then the probabilities of customers in the marketplace actually using it increased quite a bit, and as a result, we also then believed that some customers would use RDRAM and that we needed to then engage to negotiate for a license.

Q. After learning about Intel's endorsement of direct RDRAM, did you have meetings with Rambus to discuss the possibility of taking the license?

A. Yes.

Q. A license covering direct -- direct RDRAM?

A. Yes.

Q. Did you personally participate in any such meetings?

A. I did.

Q. Do you recall the time frame?

A. It was in the early part of 1997.

Q. Did anyone else from Micron participate with

you in such meetings?

A. Yes, I had one of our vice presidents responsible for DRAM at the time, Bob Donnelly, join me, and we had -- we had somebody from legal counsel, but I just don't recall who it was.

Q. Do you recall who participated in these licensing-related discussions on behalf of Rambus?

A. I know Mr. Tate was there, and there were a couple other people that were with him.

Q. Do you recall how many meetings occurred before -- well, first of all -- strike that.

Did you ultimately take a license to Rambus' direct RDRAM technology?

A. Yes, we did.

Q. And was there more than one meeting between Micron and Rambus leading up to that -- the license itself?

A. There was.

Q. Do you recall how many?

A. I don't recall, and I did not participate in all of them.

Q. Do you recall when the actual license was signed or agreed to?

A. It was -- it was, again, kind of the latter -- maybe it's in the springtime sometime in that same

year, 1997, but within two or three months after engaging in that first meeting.

Q. From Micron's standpoint, why did you ultimately choose to take a license to Rambus' direct RDRAM technology?

A. We felt that with Intel's endorsement, that there would be a customer base that would use the product, and we needed to be in a position to make whatever product that the customer decided that they were going to use for their platforms.

Q. At the time that you signed that license, did you stop developing or working on other future DRAM options?

A. No, we did not.

Q. Did anything in the license agreement with Rambus require you to stop work on other future DRAM options?

A. No.

Q. At the time that you were negotiating the direct RDRAM license with Rambus, did you personally, Mr. Appleton, understand that Rambus claimed to have patents or patent applications relating to the direct RDRAM technology?

A. I -- I -- as part of the -- as part of the license itself, there was a section in there on patents

and patent pooling, so I was aware that Rambus had patents related to the RDRAM technology.

Q. Do you recall whether Rambus provided Micron with copies of any patents or patent applications during these licensing negotiations?

A. I -- I don't know. They didn't to me.

Q. Do you recall whether during those negotiations Rambus said anything to the effect that its patent rights extended or might extend beyond direct RDRAM?

A. Never.

Q. Do you recall Rambus representatives during these negotiations saying anything to the effect that they believed that Rambus possessed or might be able to obtain patent rights extending to SDRAM or any aspect of SDRAM?

A. Never.

JUDGE McGUIRE: All right, let me interject here. I'm a little bit confused. Perhaps you can clarify this for me, Mr. Appleton.

If you didn't assume that they had patents in this area, then why would you enter into these understandings with them?

THE WITNESS: No, we assumed that they had a patent portfolio covering RDRAM.

JUDGE McGUIRE: Right.

THE WITNESS: And that was a part -- that would be common as part of a license negotiation we would go through.

JUDGE McGUIRE: Okay, it's just that you didn't see those patents at the time of these negotiations. Is that correct? I mean, is that what your testimony is?

THE WITNESS: The actual patents -- the actual patents themselves -- an example would be if we were to negotiate a cross-license with some other company, we wouldn't send them all our patents and -- it would just be included in the negotiation that we would have access -- we would be licensed to those patents.

JUDGE McGUIRE: Okay, Mr. Royall, proceed.

MR. ROYALL: Thank you.

BY MR. ROYALL:

Q. So, just to come back to this, you did generally understand that the direct RDRAM technology, the technology that you were licensing from Rambus, was covered or you understood that that technology was covered by some form of patent rights held by Rambus. Is that what you said?

A. Yes, that is correct.

Q. Did you have any understanding, putting aside whether you understood that Rambus' patents covered the

direct RDRAM technology that you were licensing, did you have any understanding as to whether Rambus patents covered or might cover any other technology other than the direct Rambus technology that you were licensing?

A. Never during the discussions that we had with Rambus on the license for RDRAM did they ever indicate, ever say that somehow that the patents that were part of RDRAM had any application to anything else besides RDRAM.

Q. If it were the case that Rambus in this time period either possessed or thought that it could obtain patent rights covering other technologies other than the Rambus direct RDRAM technology that you were licensing, would you have expected that to come up in your licensing discussions?

MR. STONE: Objection, Your Honor, calls for speculation, it's hypothetical, lacks foundation.

JUDGE McGUIRE: Sustained.

BY MR. ROYALL:

Q. You said, sir, that in your discussions about licensing the direct RDRAM technology from Rambus, Rambus never indicated to you that they believed that their patents extended to other technologies besides direct RDRAM. Is that right?

A. That is correct.

Q. To your knowledge, did Rambus at that time have any reason to know that Micron was working on SDRAM?

A. I'm sorry, did you say SDRAM?

Q. Yes.

A. Sure, the whole world knew that.

Q. Let me ask you to refer back to the prior exhibit, RX-828, which is Geoff Tate's letter to you from December 10, 1996.

Do you see any indication in that letter that Mr. Tate, CEO of Rambus, was aware that Micron was working on SDRAM at this time?

A. Yeah, in his letter, he specifically references that we would stop working on high-bandwidth DRAMs after the current EDO/synchronous DRAM products.

Q. If Rambus in this time period possessed or believed that it possessed patent rights over some aspect of SDRAM, would it have been important for you to know that?

MR. STONE: Objection, Your Honor, again, calls for speculation and lacks foundation.

MR. ROYALL: Your Honor, may I be heard?

JUDGE MCGUIRE: Yes.

MR. ROYALL: I don't think that this does call for speculation. This is asking for his state of mind based on his knowledge at this time period and the

events that were occurring at that time, and I'm asking for his state of mind, what was important to him in that time period, which is I submit a perfectly appropriate question in this context.

JUDGE McGUIRE: I'll entertain the question on that basis.

MR. ROYALL: Thank you.

BY MR. ROYALL:

Q. Do you have the question in mind or would you like me to read it back?

A. Could you please read it back to me?

Q. If Rambus in this time period possessed or believed that it possessed patent rights over some aspect of SDRAM, would it have been important for you to know that?

A. Yes.

Q. Why?

A. Well, in terms of trying to determine both the terms of a license and the technology that we were going to develop moving forward, it would have played a role as to whether Rambus thought that they had patents that were applicable to a current product line and the evolution of that product line.

Q. And you mentioned I believe earlier that in this same time period, in addition to SDRAM and future

versions of SDRAM, that Micron was working on something called SyncLink?

A. Yes.

Q. And is SyncLink, the SyncLink DRAM technology, also sometimes referred to as SLDRAM?

A. Yes.

Q. During your negotiations with Rambus over a license to the direct RDRAM technology, did Rambus representatives ever say anything to the effect that they believed that Rambus possessed or might be able to obtain patent rights extending to the SyncLink DRAM technology?

A. No.

Q. If it were the case that Rambus possessed or believed that it could obtain patent rights over that technology, the SyncLink technology, would it have been important for you to know that?

MR. STONE: Your Honor, I understand your ruling on this is likely to be consistent with the last one, but I want to object again on the same grounds I did.

JUDGE McGUIRE: All right, noted for the record and overruled.

MR. ROYALL: Thank you.

THE WITNESS: We would have expected that they

would have said something about having patents related to SyncLink during the negotiations, and never did they say anything about that.

BY MR. ROYALL:

Q. And would it have been important for you to know that information if there were information in that regard?

A. It would have been very important, because it would have -- it could determine the course that we pursued in terms of technology moving forward.

Q. After signing the RDRAM -- direct RDRAM license agreement with Rambus, did Micron do anything to develop direct RDRAM technology?

A. We did a lot of things.

Q. Well, what -- what did you do? If you can identify what -- what things you did do, and perhaps I could follow up.

A. Well, we --

JUDGE McGUIRE: And let's try to keep this concise. Let's don't get off on a long, few-minute answer.

THE WITNESS: All right.

MR. ROYALL: That's what I meant by that, Your Honor.

JUDGE McGUIRE: Let's keep this very crisp, if

we can.

THE WITNESS: I understand.

We put a large design team in place. We started to expand the number of people inside the company that were working on Rambus, things like product engineering. We actually started to put orders in place for purchasing equipment that could actually manufacture RDRAM, which included the testing environment. We put it on our product specifications, we put it on our roadmaps. We started to do all those things that you would do when you're developing a product.

BY MR. ROYALL:

Q. Let me follow up on just a couple of the things you mentioned. You said something about a large design team on RDRAM. What do you mean by that and what causes you to characterize the design team on RDRAM as large?

A. Well, we -- in fact, we had the largest design team up to that point in time that we put on RDRAM compared to any other product that we had had a design team on.

Q. And did you do anything to give the design team incentives or reasons to develop the RDRAM technology?

A. Yeah, we did. I think it's important here,

Your Honor, just for a second, the timing of this is important, because when we first signed the license, the schematics and the final design wasn't even complete yet. So, we had to first wait to get that until we could do some of these downstream items.

And on the design team, we put a bonus in place actually, a cash incentive bonus to meet certain milestones and tape-out dates to try to accelerate getting that product developed, but of course, that couldn't happen until we got the documentation from Rambus itself for the direct RDRAM.

Q. You mentioned cash bonuses. These are bonuses for the design engineers working on RDRAM?

A. They were bonuses for a number of people in the process. They were for design engineers to hit the tape-out date. They were qualification bonuses put in place to incentivise the people to get this developed in as short a time as possible.

Q. Is that a customary kind of thing for Micron to do when it's developing a new DRAM technology?

A. It's a little out of the ordinary. We didn't have that program for any of the other designs at that time.

Q. And what was the purpose for Micron implementing such a program in connection with direct

RDRAM development?

A. We wanted to do as much as we could to try to get that product developed so that we could meet what we thought was going to be the customer demand for it.

Q. You mentioned something about ordering or purchasing new equipment.

A. Yes.

Q. Can you explain what you're referring to?

A. Well, the -- because of the high bandwidth of the device, we would -- we had the need to go out and buy new testing equipment, and actually, new testing equipment to test these high-speed devices is really very, very expensive.

Q. After signing the license with Rambus covering the direct RDRAM technology, did Micron do anything to promote direct RDRAM outside the company?

A. Yes.

Q. What, if anything, did Micron do in that regard?

A. Well, we had roadmaps when we met with the customer that had RDRAM on it. We had -- we had incorporated it as part of our product presentation, and that included advertising and things of that nature.

Q. You mentioned roadmaps. Let me ask you to take

a look at Exhibit CX-2742, which we discussed earlier. This is a Micron roadmap. Is that right?

A. Yes.

Q. And --

A. Well, some of it is. It's not all a roadmap, but yeah.

Q. Well, can you -- can you point us to the pages that constitute what you would have referred to as a roadmap? Is the first page page 8, is that --

A. Well, as we come to an example, why don't we go to page 9, that's -- desktop is probably the largest component in the consumption of DRAM today or actually at this time as well, and if you go to the page 9, that would be typical of laying out our roadmap.

Q. And the RDRAM -- direct RDRAM technology identified here?

A. Yeah, in several places.

Q. And is this the kind of document that you were referring to when you said that after signing the license with Rambus, Micron put the direct RDRAM technology on its roadmap?

A. Yes.

Q. And I think you testified earlier that this type of document is -- this is the type of document that Micron shared with its customers. Is that right?

A. Yeah, this is a common document.

Q. Now, in response to the earlier question about efforts that Micron made to promote the direct RDRAM technology outside the company, I think you may have mentioned press releases.

A. I didn't mention -- we had press releases.

Q. Oh, you mentioned advertisements.

A. Yeah, I said advertising.

Q. Well, I'll come back to advertisements, but did you issue press releases relating to the RDRAM technology or do you recall?

A. Yeah, we did.

MR. ROYALL: May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. ROYALL:

Q. Mr. Appleton, I have just handed you a document that's been marked for identification as Exhibit RX-1464. Do you recognize this document?

A. Yes.

Q. Can you explain to us what it is?

A. This is a press release that we put out when we -- to announce that we had the first sample shipments, which I already described earlier what that is, on the 128-meg and 144-meg RDRAM.

Q. And what was the purpose of Micron issuing this

press release?

A. Well, we wanted to let customers know that we had sent samples to Intel for them to be evaluated and that we were getting ready for the market.

Q. To your knowledge, was this the only press release that Micron issued relating to its development of RDRAM?

A. No, we had -- we had a few others.

Q. Let me just ask you a couple questions about the statements in the press release.

The first sentence of RX-1464 states, "Micron Technology, Incorporated today announced shipment of 128 meg and 144 meg RDRAM," and let me just stop there.

Do you see that?

A. Yes.

Q. And there's a reference to samples here, and that -- I believe you explained earlier that samples are products but that are not -- not yet produced in large volumes?

A. That's right, they're products that you've developed, you've produced, but you're really sending them to -- either to Intel in this case or to a customer for them to start going through a qualification and validation process.

Q. Going to the next paragraph in RX-1464, it

begins with the word's "Micron's successful."

Do you see that?

A. Yes.

Q. And that sentence says, "Micron's successful development of RDRAM devices enhances our leading position in the highly competitive DRAM industry."

Do you see that?

A. Yes.

Q. And that's a quote that's in the press release that's attributed to you.

A. Yeah.

Q. Is that or was that a correct statement at the time that it was made?

A. Yes.

Q. Did Micron at this time consider its development efforts on direct RDRAM up to this point to have been successful?

A. Yes.

Q. Continuing in that same paragraph, the press release states, "By focusing RDRAM development on 0.18-micron process technology, Micron will deliver very competitive memory products for the introduction of Rambus-based systems this fall."

Do you see that?

A. Yes.

Q. And then there's a reference in the next sentence to, "Micron's RDRAM devices are the smallest in the industry."

Do you see that?

A. Yes.

Q. And do you know whether that was a correct statement at the time that it was made?

A. We believed it was.

Q. And did Micron view that as a significant factor achievement with respect to its development of RDRAM?

A. Yes.

Q. Why?

A. Well, because we believed that by being able to make the smallest die in the world, that we would be more cost-effective, going back to the discussion before about we would get more chips per wafer, and we would be more cost-competitive.

Q. The final sentence in that same paragraph states, "We are fully prepared to bring Rambus technology to market and anticipate becoming a volume leader in the latter half of 1999."

Do you see that?

A. Yes.

Q. Was that a true statement when it was made in

this June 1999 press release?

A. Yes.

Q. In addition to press releases, I think you mentioned that Micron did some advertising relating to direct RDRAM. Is that right?

A. We did, yes.

MR. ROYALL: Before we go any further, let me just ask, is this document -- I believe this document, RX-1464, is already in evidence, Your Honor.

JUDGE McGUIRE: Okay.

BY MR. ROYALL:

Q. Now, in terms of -- in terms of advertisements, when you refer to advertisements on direct RDRAM, are you talking about print advertising or something else?

A. No, print advertising.

Q. Do you recall specifically what Micron said about direct RDRAM in any print advertising?

A. Well, my recollection is in the -- in the advertisement we did, we were talking about the high-speed capability, the high bandwidth of RDRAM.

MR. ROYALL: May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. ROYALL:

Q. Mr. Appleton, I've just handed you a document that's been marked -- it has a Bates number that reads,

MFTC 100008027. Do you have that?

A. Yes, I do.

Q. Do you recognize this document?

A. Yes, I do.

Q. What is it?

A. This is one of the advertisements that I was referring to that we had done to promote RDRAM.

Q. Do you know whether there were others, other print advertisements that Micron did for RDRAM?

JUDGE McGUIRE: Mr. Royall, let me interject. Do you have this on the screen?

MR. ROYALL: I'm sorry, Your Honor, I --

JUDGE McGUIRE: That's all right, that's all right.

MR. ROYALL: -- I apologize. May I approach you with a copy?

JUDGE McGUIRE: If you have one, I'll take it quickly.

MR. ROYALL: I forgot about that, I'm sorry.

JUDGE McGUIRE: Thank you.

BY MR. ROYALL:

Q. I believe, Mr. Appleton, my prior question to you was whether -- whether you know if there were other print advertisements that Micron did relating to RDRAM.

A. I don't recall the advertisements, all of the

advertisements, but we had other print ads.

Q. Do you know whether this particular advertisement was, in fact, run?

A. Yes, this one was run.

Q. Do you know in what publications it was run?

A. I don't. I don't recall.

Q. Do you have an understanding as to generally what time frame it was run?

A. Well, on this advertisement here, it has a 1999 date.

Q. Is that consistent with your recollection as to when --

A. Yeah.

Q. -- when Micron was running advertisements of this sort?

A. Yes.

Q. Were you personally involved in the process of developing this ad?

A. No.

Q. Do you know who from Micron was involved?

A. I don't specifically. We have an advertising and marketing group that does this.

Q. Do you know whether this or other advertisements relating to direct RDRAM prepared by Micron were prepared in conjunction with Rambus?

A. I don't know that.

Q. Now, focusing on the language of this particular advertisement, the first -- the first few sentences of the text in the bottom half of the advertisement state, "With its revolutionary new architecture, RDRAM can help your design take flight, and Micron can show you how."

I won't read any further. Do you see that language?

JUDGE McGUIRE: Okay, Mr. Stone?

MR. STONE: Your Honor, this ad and three other ads were first produced to us last evening, and we had not received them before in discovery. Now, I take it that Mr. Royall, by reading the text of the ad, is offering the ad in evidence. Either he's going to move it in evidence or he's going to read the text in evidence; either way he is going to get it into evidence.

I don't have any objection to this ad being moved into evidence as long as the other three ads that were produced to us last night would be similarly treated, so we can move all three ads into evidence.

JUDGE McGUIRE: Mr. Royall, is that your intention?

MR. ROYALL: I have no objection to that, Your

Honor. The other advertisements I wasn't planning on discussing in my examination.

JUDGE McGUIRE: If it's going to make him happy, we will move all four of them in.

MR. STONE: I will discuss the other three in mine.

JUDGE McGUIRE: Let's see, do we want to offer those in at the same time or do you want to offer them in --

MR. STONE: We can offer them whenever. I'm not concerned about the time, Your Honor.

JUDGE McGUIRE: Understood.

Go ahead and proceed.

MR. ROYALL: Thank you, Your Honor.

BY MR. ROYALL:

Q. Now, I won't read further in the text of the ad for purposes of this question, but the language that I did read, which was just the first two sentences of the text, is that consistent with the types of advertising messages that you recall Micron making with respect to direct RDRAM?

A. Yes.

Q. Do you have an understanding as to who the target audience was for this ad?

A. It would be those customers that had a need for

high-performance DRAM.

Q. Do you see the picture depicted here in the ad?

A. Yes.

Q. What do you recognize that to be a picture of?

A. It's a picture of a large jet cockpit.

Q. And do you have an understanding as to what Micron was seeking to communicate or convey through the use of that picture in an RDRAM-related advertisement?

A. Again, trying to communicate just the high performance of RDRAM.

MR. ROYALL: Now, if I could, Your Honor, I would offer this document which I had previously identified by Bates number in evidence at this time.

JUDGE McGUIRE: Now, what -- is it going to be a CX exhibit?

MR. ROYALL: Yes, and I'm told that the CX would be CX-3110, and if -- if it would simplify it, we could move in all four of the documents at once into evidence.

JUDGE McGUIRE: All right, let's move them all in and be done with this.

MR. ROYALL: Then the range for CX-3110 would be --

MR. STONE: I think they should be four different exhibit numbers, Your Honor, just for

clarity.

JUDGE McGUIRE: That's fine with me.

MR. ROYALL: I'm happy to do it that way as well. So, this 3110 will just relate to the Bates number that I identified earlier.

JUDGE McGUIRE: Are we going to offer in the other three now or are we going to wait for Mr. Stone?

MR. ROYALL: I think Mr. Stone may do that in his examination.

JUDGE McGUIRE: Okay, fine.

(CX Exhibit Number 3110 was admitted into evidence.)

BY MR. ROYALL:

Q. Now, Mr. Appleton, putting aside press releases and advertisements, do you have knowledge of Micron communicating directly with customers in a way that was meant to promote the direct RDRAM technology?

A. Yes.

Q. What, if anything, do you recall Micron communicating to customers in that regard?

A. Well, I mentioned earlier in my testimony, I participated in many meetings with customers where we had a roadmap for products, and we communicated to the customer base that these products would be available in certain time frames.

Q. Do you recall whether Micron communicated anything in particular to customers relating to the cost or the performance of direct RDRAM?

A. Yes.

Q. What do you recall in that regard?

A. Well, we -- as I also mentioned earlier, we have an open, honest relationship with our customers. We communicated all the parameters around any of our devices, including Rambus direct DRAM, and we spoke about the higher cost of RDRAM because of the types of things inherent in that -- in that device that just necessitated it being a higher cost.

Q. So, you mentioned higher cost. Did you communicate anything in terms of performance that you recall to customers with regard to direct RDRAM?

A. Yes, we tried to present to the customer all the alternatives to the performance retirements, and we believed, as I mentioned early, that the synchronous DRAM could be extended in its performance to a much higher level. We believed there were a variety of alternatives. So, in the discussion that we had with the customer, we simply gave them the data, all the data that we had regarding the potential products that could address their needs.

Q. I believe we covered this just very briefly

earlier, but Micron did not ultimately take direct RDRAM parts into volume production. Is that correct?

A. Yes, that's correct.

Q. And why was that?

JUDGE McGUIRE: All right, now, let's be clear on what you mean by "volume production." Can you answer that, Mr. Appleton?

THE WITNESS: Yes. Your Honor, just to give some clarity, we never -- and maybe a better distinction between sample and volume production is we never brought RDRAM into the marketplace for the commercial sale. We sampled, but usually when you sample, that's usually free. It's not a commercial type of transaction. So, really we never -- probably a better way to help understand it is we never commercialized the product.

JUDGE McGUIRE: Okay.

All right, Mr. Royall.

BY MR. ROYALL:

Q. And my question to you, Mr. Appleton, is why did Micron make the decision not to commercialize the direct RDRAM technology?

A. Well, it was an accumulation of a number of events. It wasn't any one single event. There were quite a few delays in the development of the product.

There were lots of changes in the design, even after we thought that it would be stable, that there wouldn't be any changes, and so it created delays in that time frame.

And then ultimately, in the early stages, we had customers that had -- had had it as a forecast, that they would actually consume quite a bit of the RDRAM for their products, and -- but as we went through time and as we encountered difficulties and challenges in the technology and delays, eventually, the customer started to change their forecasts for the consumption of RDRAM, and ultimately, it was at such a low level that we decided that it just wasn't worth it to try to take that to commercialization.

Q. Do you recall the rough time frame as regarding -- let me strike that.

Do you recall roughly when Micron made the decision not to commercialize direct RDRAM?

A. Well, it would have -- it was really sometime in probably 2001 when we ultimately came to the conclusion that we would really quit applying resources to try and develop it.

Q. To your knowledge, did any other memory suppliers enter into commercial production of direct RDRAM?

A. Sure.

Q. Do you recall which ones?

A. Well, the largest DRAM producer in the world, which is Samsung, entered commercialization and full production of RDRAM.

Q. Did the fact that other companies were producing direct RDRAM in commercial quantities cause you to reconsider whether Micron should do so itself?

A. It did. It was -- but I think it was a tough decision for us. We saw that the -- that one of our primary competitors was producing it, and we -- we had to think about that. I think we ourselves were a little bit unsure as to the decision, but ultimately, you know, the customer profile had changed enough to convince us that we weren't taking it to commercialization.

Q. In deciding not to commercialize RDRAM, did you seek input from your customers?

A. Sure.

Q. Do you have in mind any specific customer who said anything to you about that issue?

A. Well, our -- one of our largest customers at the time was Dell Computer.

Q. And what, if anything, do you recall Dell saying to you about the issue of whether Micron should

commercialize direct RDRAM?

A. Well, in the early stages, they had it as a significant forecast for their consumption of part of their DRAM anyways. They -- I don't believe we ever saw a forecast where they showed it as all of the DRAM, but they always had it as in the early stages a significant percentage going to a relatively high percentage, then that started to trail off over time.

So, in the first discussion with Dell, they were very aggressive about promoting RDRAM, wanting a supply before really the industry had been supplying any of it, and then as the -- I think as the actual consumption of the product itself changed over time, that there -- we came to a point in time where even Dell told us, who had been the most aggressive in trying to adopt the technology, we came to a point in time where even Dell told us, look, we're really getting all of the RDRAM that we want from other supply, and we don't need you to work on that anymore. We'd really rather that you work on supplying us other devices that fills out the other part of our product portfolio.

Q. Did you have any understanding as to what factors caused Dell to change its views with respect to whether it desired for Micron to produce direct RDRAM?

MR. STONE: Your Honor, either this is speculation or hearsay, and in either event --

JUDGE McGUIRE: Sustained. Sustained.

BY MR. ROYALL:

Q. Let me ask you, Mr. Appleton, at some point in the late 1990s, did Micron enter into any type of agreement with Intel?

A. I'm sorry, could you repeat that?

Q. At some point in the late 1990s, did Micron enter into any type of agreement with Intel?

A. Yes.

Q. What was the nature of that agreement?

A. It was an investment that Intel had made in Micron.

Q. And do you recall the basic terms of the agreement?

A. Yes.

Q. Or the nature of the agreement?

A. Yes.

Q. Can you explain?

A. Yeah. The primary investment -- it was \$500 million that they had invested in Micron, and the primary part of that agreement was a requirement that we spend -- that we equal that investment and spend it on capital expenditures for new equipment for advanced

process technology.

And Your Honor, if I can for a second, when I talk about advanced process technology, I'm talking about the ability to go from .18, .15, .13, .11, which is critical in our industry in terms of advancing the technology and increasing the general supply in the market. We had an agreement that we would match them dollar for dollar in buying new equipment in order to produce that advanced process technology.

Q. Were you involved in discussions with Intel leading up to this agreement?

A. Yes.

Q. Who initiated those discussions?

A. I did. I called Dr. Barrett myself.

Q. What was your purpose in initiating such discussions with Intel?

A. Well, in that same time frame, we were in the process of acquiring Texas Instruments' memory operations, and they had a number of fabs around the world, and so it's very expensive in order to cap -- in order to buy the equipment to put in these fabs and upgrade the process technology, and as a result, we knew that we were going to simply need more money in order to do that, and we thought that Intel would be very interested, because we also knew that they wanted

the DRAM industry to continue to advance in its supply capability.

Q. So, part of what motivated your approach to Intel at this time related to Micron's need for money?

A. Yes.

Q. What caused you to approach Intel as opposed to going to some other company or bank in order to get the funds that you needed?

A. Well, we could have approached a bank or some other investment source, but we thought Intel would have a great interest in making sure there was enough investment in capacity for the industry.

Q. In making the investment that it did in Micron, did Intel insist on any conditions or commitments from Micron?

A. Yes.

Q. What -- what conditions or commitments do you recall in that regard?

A. Well, one of the conditions I already mentioned, which was really the bulk of the dollars that were being spent was for the capital equipment. There were conditions that they would have a certain call on our capacity should they want to direct it to a customer. There were conditions that we produce a certain quantity of RDRAM if other certain conditions

were met.

Q. These -- you mentioned, if I understood you correctly, that Micron undertook some commitments relating to the production of RDRAM. Is that right?

A. Yes.

Q. Were those commitments linked to any conditions or prerequisites in terms of what the agreement with Intel provided?

A. Yes, they were.

Q. Do you recall what those conditions or prerequisites were?

A. I recall the major ones. One of them was linked to the actual chipset production that Intel itself was able to accomplish on RDRAM-competitive chipsets.

Q. Do you have -- I'm sorry, were you finished?

A. Sure, I'm sorry.

Another condition with respect to the timing of the production was related to any delays that would occur with respect to the technology being developed, whether -- whether there were changes still being made in the design, as we tried to move forward, those types of things that also were a condition for us to actually make the product.

Q. Insofar as this agreement with Intel had terms

relating to Micron's production of direct RDRAM, do you have an understanding as to why the agreement was structured to refer to those conditions or prerequisites?

A. I'm sorry, could you repeat that question?

Q. Do you have an understanding of why the agreement was structured in a way that Micron's commitments on production of RDRAM were linked to these factors that you just mentioned, including the Intel chipsets?

A. Yes.

Q. What is your understanding?

A. Well, we, of course -- you know, we knew at the end of the day during the negotiation with Intel that the customer was going to decide how much of this product was purchased, and we didn't want to get into a situation where we were producing product that we couldn't sell or get into a situation where Intel wasn't producing their share of the product in order to enable RDRAM, and so we had those conditions put in there so that we could protect the company from -- from doing something that was irrational, which is making product that we couldn't sell.

Q. And the conditions that you referred to in your earlier answer relating to Intel chipsets and timing of

the development of the technology, were those conditions ever satisfied?

A. I'm sorry, repeat the question.

Q. The conditions that you described that triggered Micron's production obligations under the agreement, were those conditions ever satisfied?

A. No.

Q. What do you recall in that regard?

A. Well, they were never met that would trigger us -- that would then require Micron to ramp the RDRAM.

Q. Is the agreement between Micron and Intel which you've been discussing still in effect today?

A. No, it's not in effect today.

Q. Do you have any recollection as to when it ceased to be in effect?

A. Well, it ceased to be in effect -- well, I don't remember. I don't recall when it was. It had an end date on it.

Q. As far as you know, did Micron comply with its commitments under that agreement?

A. Yes, we did.

Q. Did you ever receive notice from Intel that it felt that Micron had not fulfilled its obligations under the agreement?

A. No, we did not.

Q. Now, we've touched on something called SyncLink or SLDRAM. Was Micron a supporter of SLDRAM?

A. Yes.

Q. And do you have any understanding as to why Micron supported SLDRAM?

A. We believed it was another potential alternative that the market might adopt.

MR. ROYALL: May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. ROYALL:

Q. Mr. Appleton, I have just handed you a document that's been marked for identification as Exhibit RX-801, and if I could direct your attention to the second -- the second page of RX-801, do you have that page?

A. Yes.

Q. And do you see your name on the bottom half of the page?

A. Yes.

Q. And do you recognize whether this is something that you wrote?

A. Yes, I did.

Q. And you sent this to -- is it a Mr. Tabrizi? Is that correct?

A. Yes.

Q. Who is Mr. Tabrizi?

A. Mr. Tabrizi is I believe one of the marketing executives for Hynix today but was I think Hyundai at the time.

Q. And this document, RX-801, is -- appears to be an email chain of some sort. I'm not sure that your communication to Mr. Tabrizi actually has a date on it. Do you see a date?

A. No, I do not.

Q. Do you have a recollection as to when you sent this communication to Mr. Tabrizi or is there anything in the document that refreshes your recollection?

A. I really don't recall.

Q. Do you recall what it was that caused you to send this email to Mr. Tabrizi?

A. I had been requested by one of our marketing managers to send this letter to Mr. Tabrizi.

Q. And do you have an understanding as to why you were being asked to send this to Mr. Tabrizi?

A. Well, I was told that the -- that I -- that they wanted me to send this letter to Mr. Tabrizi because he was having difficulty even within Hyundai on maintaining support for SyncLink. Mr. Tabrizi, I think, was a pretty big proponent of SyncLink, and as a result he wanted I think his own management to

understand that we were very committed to trying to develop this technology.

Q. Let me just ask you about a couple of statements in the email.

Referring to the second page of RX-801, the second paragraph of your email to Mr. Tabrizi, do you see the sentence beginning, "It is critical"?

A. Yes.

Q. That sentence states, "It is critical our industry continue to develop new expertise and intellectual property."

Do you see that?

A. Yes.

Q. Do you recall what you meant by that statement?

A. Well, this is some time ago. I -- you know, the discussion about -- that we need to continue to develop, you know, technology and alternatives was very important for the industry as we moved forward.

Q. What about the next paragraph, where the first sentence states, "We also believe the future health of the DRAM industry will rely on the suppliers' ability to generate new intellectual property for high frequency DRAMs"?

Do you see that?

A. Yes.

Q. Do you recall what you meant by that statement?

A. It's -- it's, again, difficult to remember that far back, but the belief was that the industry needed to develop higher speed interfaces to get the data out of the DRAM faster than what had previously occurred in history, and it was just important that we continue to do that in order to meet the needs of the platform and customer base moving forward.

Q. You may set that aside, if you would.

Now, I'd like to change subjects and ask you whether at some point, Mr. Appleton, you personally learned that Rambus was asserting patents against manufacturers of SDRAM and DDR SDRAM devices.

A. Yes, I'm sorry, what was the question?

Q. Did you at some point learn that Rambus was asserting patents against manufacturers of SDRAM and DDR SDRAM devices?

A. Yes.

Q. Do you recall when you learned that?

A. Well, the -- there was a suit filed against Hitachi I believe it was in 2000 that asserted exactly that.

Q. And do you recall how you learned about this Hitachi lawsuit?

A. Well, it was quite public. It was in many

press articles.

Q. Do you recall how you reacted or responded when you heard that Rambus was asserting patent rights over these products, SDRAM and DDR SDRAM?

A. Well, we were surprised. I think that -- well, not only were we surprised, we were very disappointed.

Q. Let me take the first point you made, surprise. Why were you surprised when you learned of this?

A. Well, because, you know, at this time, both synchronous DRAM and DDR had been a standard developed some time ago, and it was developed through a JEDEC process, and we believed that it was an open standard, and as a result, that somehow some intellectual property that -- as a result of participating in that process, that IP wouldn't then come back later to be asserted against a standard that had been developed years ago.

Q. Prior to the time that you learned of Rambus asserting patents against SDRAM and DDR SDRAM devices in the context of the Hitachi suit, prior to that time, had you ever heard anything to the effect that Rambus had or might have patents covering those types of DRAM devices?

A. No.

Q. You said in response to my earlier question

that one of your reactions when you learned of Rambus suing Hitachi on these devices was that you were disappointed. What did you mean by that?

A. Well, we -- we had been in discussions with Rambus for the RDRAM license in a prior period, and during that discussion, I've already said in my testimony, never was it mentioned that they believed that they had intellectual property that would apply to synchronous DRAM or DDR, and we met on several occasions to discuss the license for RDRAM, and never did anybody say that they had any intellectual property that would be applied towards a product that was currently being made at that time.

Q. When you learned about Rambus asserting patents over SDRAM and DDR SDRAM devices, was that of concern to you in connection with Micron's own business?

A. Yes, it became of great concern.

Q. Why was it of concern to you?

A. Well, we had already moved down a path of developing and building a product to the synchronous DRAM and DDR JEDEC open standard, so we had made considerable investment into that technology.

Q. And why was the fact that you had made investment into this technology something that caused you to be concerned when you learned that Rambus was

asserting patent rights over the technology?

A. Well, it's not an easy path for us to try to change once we become committed to a standard. There are costs associated with it. There are design and time considerations to try to make a change.

In addition to that, as you -- as you move forward -- you know, we have an entire customer base that has already designed in and is now buying product off of a standard that they also believed that was open and developed through the JEDEC process.

Q. Other than what you have already mentioned, were there any other respects in which you were concerned from the standpoint of Micron's business when you learned that Rambus was asserting patents over DDR SDRAM and SDRAM devices?

A. Yeah, well, it became public in the press, comments that Rambus had made that they had claimed that -- first of all, the royalty rate that they were asking for was exorbitant, and in addition to that, that they may not license companies on these patents moving forward.

Q. Were you at some point or was Micron at some point contacted by Rambus regarding the subject of SDRAM and DDR SDRAM patents?

A. Yes.

Q. Do you recall when that was?

A. I don't recall the exact time frame. It was -- it was the -- sometime in the mid to the latter part of the year 2000, I received a letter from Mr. Tate.

Q. Do you recall what that letter said?

A. The letter described terms under which we should take a license and so forth.

Q. Do --

MR. STONE: Your Honor, I object and move to strike on the grounds of best evidence. The letter would be the best evidence of its contents.

JUDGE McGUIRE: Sustained.

BY MR. ROYALL:

Q. When you were first contacted by Rambus relating to patents on these technologies, what do -- what, if anything, do you recall that Rambus was proposing to Micron?

A. Well, it included royalty rates under which they would grant us a license.

Q. Did you meet with anyone from Rambus relating to these patents in that time frame?

A. No.

Q. Is there a reason why you did not meet with them?

A. Well, we -- after I received the letter, we had

discussion internally about it, about the terms, and you know, we were -- at this point in time, not only were we disappointed, I think that we were pretty upset, and it's for a pretty simple reason.

We believed that, first of all, they should have told us something in the past when we were negotiating on the prior license. Secondly, that here we had moved down this path of developing a standard that we thought was open, of which they participated in, and that they're now asserting intellectual property against it.

And you know, sometimes you have to come back to this, you know, good faith, what's fair, what's not fair, and you can't have a process like that and then have something like this occur --

JUDGE McGUIRE: All right, Mr. -- I am going to caution you. That's more argument than it is testimony. So, I don't want to get into that. Just answer the question, and we'll stay on that track.

BY MR. ROYALL:

Q. Let me ask you this, Mr. Appleton: You mentioned in your earlier answer that you understood that when Rambus contacted you about DDR SDRAM and SDRAM patents that they were seeking to charge royalties.

A. Yes.

Q. Did you have an understanding as to what amount of royalties Rambus was seeking relating to these patents?

A. Yes.

Q. What was your understanding?

A. They were requesting 1 percent on product that was currently being made but requesting 3 and a half percent on a follow-on product.

Q. And when you say they were requesting 1 percent on product currently being made by Micron, what product are you referring to?

A. Synchronous DRAM.

Q. And when you say that they were -- that Rambus was requesting a 3.5 percent royalty on future product, what product are you referring to?

A. DDR.

Q. Did you have any views regarding the reasonableness of those royalty rates for those products?

A. We thought they were exorbitant. We didn't think they were reasonable at all.

Q. Did you at the time that Rambus contacted you about DDR SDRAM and SDRAM related patents, did you have an understanding as to what amount of cost Micron would

incur if it were to agree to pay royalties in these amounts relating to these products, SDRAM and DDR?

A. Yes.

Q. What was your understanding in that regard?

A. Well, it would be hundreds of millions of dollars.

Q. Let me see if we can pull up a slide that we looked at earlier, which was identified as DX-114.

Do you recall that we discussed this slide earlier, Mr. Appleton?

A. Yes.

Q. Does this slide in any way help you in providing a -- any kind of ballpark estimate as to the cost impact to Micron of paying royalties on SDRAM and DDR in the amounts that you've mentioned earlier?

A. Well, I think it can give you a gauge. The -- of course, the revenues fluctuate, and royalties that were being proposed were based off of revenue, so it would change from year to year, but essentially when we look at these research and development numbers, looking at those, because that would give you a good scale, the royalties we would be paying Rambus would be somewhere between 25 and 50 percent of the R&D expenditures annually.

Q. So, by that you mean in the hundreds of

millions of dollars?

A. Yes.

Q. Did Micron agree to take a license from Rambus relating to SDRAM and DDR SDRAM?

A. No.

Q. Why not?

A. Well, I think there comes a point in time when, you know, somebody has to stand up and do the right thing, and we thought that was Micron. We did not agree with what was being asked for. We thought the royalties were too high. We believed that there was a process in place that should have stopped this type of thing. And so we took the course of not taking a license.

Q. Did you have any concern that by not taking a license from Rambus on these products, you might be putting your company at risk?

A. Absolutely, we did. It's -- I mean, it was a big decision for us, and it was a tough thing to do.

Q. In what ways were you putting your company at risk or might you have been putting your company at risk by not taking a license from Rambus relating to DDR SDRAM and SDRAM?

A. Well, as I mentioned earlier, Rambus had claimed that they may not license companies on their

patents, and that would greatly affect our ability to produce this product.

MR. ROYALL: May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. ROYALL:

Q. Mr. Appleton, I've just handed you a document that's been marked for identification as Exhibit CX-1140. Do you recognize this?

A. Yes.

Q. What is it?

A. This is an email that I received from Geoff Tate in the upper part of it, and the lower portion of it is an email that I had sent to Mr. Tate.

Q. And Mr. Tate is the CEO of Rambus?

A. Yes.

Q. Your email to Mr. Tate, which I believe is on the -- it's on the bottom half of the first page of Exhibit CX-1140, refers in the first sentence to an August 24 email.

Do you see that in the first sentence?

A. Yes, I do.

Q. And that's an email that you had received from Mr. Tate?

A. Yes.

Q. And is that the email that you were referring

to earlier when you say that you were contacted by Mr. Tate relating to the issue of licensing Rambus patents covering SDRAM and DDR or purportedly covering those products?

A. This is in reference to it, of course, to the letter. This isn't the actual letter itself that I received, but this is in reference to that letter.

Q. And what was your purpose in sending this email, this August 28th, 2000 email that's included on the first page of CX-1140? What was your purpose in sending that email to Mr. Tate?

A. Well, I wanted to let Mr. Tate know that we were not going to take a license.

Q. Now, in your email to Mr. Tate, you refer to -- referring to language in the first paragraph, you refer in the second sentence to "Rambus' past and recent behavior."

Do you see that?

A. Yes.

Q. Do you recall what you were referring to by that language?

A. Well, Rambus in the ensuing time since they had sued Hitachi, and I think they filed suit against another company or two before this time frame, it became evident to us that there wasn't going to be any

flexibility on the license that they wanted us to take, that, you know, we thought this whole thing was in bad faith and that it -- it just wasn't going to get resolved any other way, and we decided that the most appropriate path would be to, you know, let the courts decide.

Q. You say let the courts decide, and is that what you're referring to when you say in the same email that the only way to have a sensible resolution is through litigation?

A. We thought it was -- we thought it was inevitable. We were convinced that Rambus was going to sue us anyways and that it was inevitable. So, we decided not to -- to, you know, pursue some other alternative.

Q. Did Micron institute litigation against Rambus at this time?

A. Not at this time, but we did thereafter.

Q. And generally speaking, what do you understand to be the nature of that litigation?

A. Well, we filed a declaratory judgment with respect to the patents, which you can describe better than I can, I'm sure.

Q. Well, the second paragraph of the same email, the first -- on the first page of CX-1140, refers to --

your language refers to Micron's antitrust and other objections to Rambus' business tactics.

Do you see that?

A. I'm sorry?

Q. It's in the second paragraph of your email.

A. Yes.

Q. What did you mean to refer to by that language?

A. Well, in our complaint, we are asserting that -- that they were in violation of antitrust laws, that there was fraud and bad faith.

Q. Is the litigation that you're referring to here that was instituted by Micron at some point after this email was sent, is that litigation still ongoing?

A. Yes.

Q. Is that the only litigation presently ongoing between Rambus and Micron?

A. No.

Q. What other litigation exists between Micron and Rambus?

A. Rambus filed suit against us in many other countries in the same time frame.

Q. What other countries?

A. Oh, they filed against us in France, in Germany, in the UK, in Italy.

Q. And what do you understand to be the nature of

those foreign lawsuits instituted by Rambus?

A. Well, they're asserting foreign patents in those venues against us similar to this case.

Q. Do those foreign suits in your view pose any risks to Micron?

A. There's no question they pose risks.

Q. And how do they put your company at risk?

A. Well, if we take the lawsuit in Italy, for example, we have a large wafer manufacturing plant there. We employ 1500-2000 people, are producing lots of product, and in fact, Rambus even tried to get a preliminary injunction to shut us down there. Fortunately, that wasn't successful, but it would have a -- just a dramatic effect on the company.

We've invested hundreds of millions of dollars in that operation, and to have it not operate would obviously be very detrimental to us.

Q. If because of litigation with Rambus you were forced to shut down your operations in Italy, how would that impact your company?

A. We'd have an operation that we had invested an incredible amount of money in that simply wouldn't be able to operate anymore. We would have tons of people out of a job, and we wouldn't be able to service our customer with the products that they're currently

buying from there.

Q. Would that have impacts on Micron beyond the borders of Italy?

A. Yeah, of course. That product that's made in that operation gets sold around the world.

Q. What about the -- you mentioned that there's a lawsuit in Germany. Does that suit pose risks to your company?

A. Yeah, it definitely poses a risk to the company.

Q. Does it pose risks to your company beyond the borders of Germany?

A. Yes.

Q. And how is that?

A. Well, we have several large customers that are in Germany, and we would no longer be able to sell product to them in Germany, and they would no longer be able to then to get that product that they manufacture in Germany and sell to somebody else outside of Germany.

Q. I take it that the various forms of litigation that Micron has been involved in with Rambus have involved some amount of litigation costs?

A. Yes.

Q. Do you have any sense of what amount of

litigation costs your company has incurred relating to that litigation?

A. Well, there are two components to that. The litigation costs -- the direct litigation costs is in the tens of millions of dollars, but frankly, more importantly, the litigation costs associated with having all of our technical people and our administrative people and individuals like myself, all of us to focus and prepare for these trials and these cases is obviously a great deal of time and a great burden.

Q. Now, I have one last topic I'd like to cover with you, and it won't take very long.

Let me ask you this, Mr. Appleton: After you learned that Rambus was asserting patent rights against SDRAM and DDR SDRAM-related products, did Micron at that point start phasing out its own production of SDRAM and DDR SDRAM?

A. No.

Q. Why not?

A. Well, it's virtually impossible to make that kind of a change after you go through the development and the investment. So, there's an issue related to the customer base, there's an issue related to the cost to do so, there's an issue related to the design and

qualification time of making a change.

And then finally, when you invest in technology, you don't simply want to move sideways, you want to move it forward, because there's a cost to make any advancements or changes in technology, and we want to move forward. We don't want to move sideways.

Q. Let me follow up on a few things that you just said.

First of all, you mentioned in response to my earlier question that despite knowing that Rambus has been asserting patent rights over DDR SDRAM and SDRAM-related devices, you haven't phased out your production of those devices in part because of the customer base?

A. Yes.

Q. What did you mean by that?

A. Well, I've said many times during my testimony that the product that actually gets consumed in the marketplace is not determined by Micron, it's determined by the customer base. The customer has developed product platforms based on these standards, and the -- and until the customer decides that they're no longer going to buy this product, then Micron really cannot make a change in its product portfolio, and we have to continue just to provide the product that we

have been providing for some time.

Q. In response to my earlier question, you also made a comment about cost. How does Micron's cost factor into your decision to continue producing SDRAM and DDR SDRAM despite knowing that Rambus has asserted patents over those products?

A. Well, there's an enormous cost to make a change in technology. When you consider the -- for example, if we take the cost to do a higher bandwidth DRAM, I mentioned earlier the cost in the testing arena. It costs hundreds of millions of dollars for Micron to make a change in the testing of those devices. It costs money in changing the packages. It costs money in changing the processes in order to make those kinds of changes.

We're not talking about a small amount of money. We're talking about hundreds of millions of dollars to make those kinds of changes.

Q. What about design qualification? You mentioned that. Can you explain how that impacts your decision concerning going forward with production of these products?

A. Even if we wanted to make a change today and go design some other device, the design times are going to run somewhere between one and two years in order to get

a design change, and then after that, after they tape it out and get the design out, then we will have to run those devices in the manufacturing fab on a sampling basis, on a development basis, and that will take probably six to nine months, and then we have to get it qualified.

A qualification procedure alone for a new device will take three to five months even once you get the device to the qualification state. And then, of course, we have to then get the customer to adopt the device once they can then put it in their platforms and start to test it and then ramp their product portfolio. We are talking about a many-year process to make that kind of change.

Q. Finally, in response to my earlier question, you mentioned that going sideways -- something to the effect of going sideways was a consideration in your decision, Micron's decision to continue producing SDRAM and DDR SDRAM despite knowing that Rambus has asserted patent rights over those products.

What did you mean when you referred to "going sideways"?

A. All companies have limited resources, and we have to apply those resources to the most productive path that we can. Simply taking those resources and

applying them to do a technology that doesn't provide any additional advantage to the current technology that's being produced is an enormous cost. Not only does it mean that we have to apply dollars in that direction, but we then lose out on opportunity costs to actually advance the process and move the technology forward.

Q. And what are you referring to by the term "opportunity costs"?

A. Well, to develop other new products.

Q. And are you referring to the cost of having your design people diverted on one project as opposed to another?

A. Well, yeah, when I talk about moving forward, there's an enormous cost that goes into getting a product designed, developed, qualified, and if it simply offers the same solution that's in the marketplace today, we have spent all that money, and that cost has to be reflected ultimately in what the cost is to the customer or the consumer, and it just makes us less competitive.

MR. ROYALL: Your Honor, I don't have any further questions at this time.

I would like to offer one of the documents that I discussed with the witness earlier, which is CX-1140.

MR. STONE: No objection.

JUDGE McGUIRE: Entered.

(CX Exhibit Number 1140 was admitted into evidence.)

MR. ROYALL: And I don't know what Your Honor's wishes are, but --

JUDGE McGUIRE: Well, we are going to take a break if you have concluded your examination.

MR. ROYALL: Yes, Your Honor, I have.

JUDGE McGUIRE: Then let's take a ten-minute break, and we will come back and have cross.

(A brief recess was taken.)

JUDGE McGUIRE: At this time, you may begin your cross examination of the witness.

CROSS EXAMINATION BY MR. STONE:

Q. Good afternoon, Mr. Appleton. How are you?

A. Good afternoon.

Q. Could we -- I'm going to point something out to you. The demonstratives you used earlier with Mr. Royall, those are ones you said you use in presentations regularly?

A. Well, either that or I have been there when they were being used.

Q. Okay, let's bring up DX-110. Do you see there

on the right side of DRAM, it lists the various applications?

A. Yes.

Q. And if we read from the end, it goes routers, graphics, and then it goes "game consoles." Do you see that, when it says "consoles"?

Now, you didn't mean by that to refer to your lawyer, right? You mean consoles.

A. Yes, game consoles.

Q. And that would be like Nintendo or X-Box or something like that.

A. That's correct.

Q. And I just wanted to fix that before your next presentation so your lawyers don't seem under attack.

Let me go back to where you finished with Mr. Royall. Sometime in 2000, you personally became aware that Rambus felt it had patents which covered SDRAM and DDR, correct?

A. Yes.

Q. You don't know whether somebody at Micron was aware of that before you became aware of it or not, do you?

A. I'm not aware of that.

Q. Okay. But your personal knowledge, as best you can recall it, it first came to you in 2000.

A. Yes.

Q. One of the courses of action you could have pursued was to take a license under those patents, correct?

A. Yes.

Q. And one you could have pursued was litigation, correct?

A. Yes.

Q. And you could have started to design products which didn't infringe, correct?

A. Yes.

Q. Have you taken any steps since 2000 to design products that won't infringe?

A. Well, there's an assumption there that there's an infringement. I don't know that --

Q. Let me back up. Let me back up.

Have you taken any steps since 2000 to design products which will avoid any of the allegations that give rise to Rambus' claims of infringement?

MR. POWERS: Your Honor, Matt Powers for Micron.

I will object to the extent that the question invades the work product protection of this witness. The question is broad enough to encompass some actions that would invade that protection. It's also broad

enough to include things that would not. I object to the portions that do.

JUDGE McGUIRE: Are you going to advise your client to not answer that portion, or do you object to the form of the question to the extent you've just noted?

MR. POWERS: If Mr. Stone does not in response to the objection revise it, I will then instruct the witness not to waive privilege.

JUDGE McGUIRE: Mr. Stone, any response to the objection?

MR. STONE: I think if he wants to advise his client not to answer the question as framed, he should do so, because I think the question as framed is completely proper.

JUDGE McGUIRE: All right, can we read back the question?

(The record was read as follows:)

"QUESTION: Have you taken any steps since 2000 to design products which will avoid any of the allegations that give rise to Rambus' claims of infringement?"

JUDGE McGUIRE: All right, overruled. I will entertain the question.

THE WITNESS: Outside of discussion with my

counsel, Your Honor, I don't have any knowledge other -- of what those allegations are.

BY MR. STONE:

Q. I'm not asking about what your -- your lawyers aren't designing products for Micron to sell today, correct?

A. That is correct.

Q. Okay. Engineers design products, correct?

A. In general, yes.

Q. Okay. Have you as the chairman, CEO and president of Micron said to any group of engineers at Micron, let's design some products that we can bring to market if we need to that we believe will be free of any claims of infringement by Rambus?

A. I don't know what those claims are, so the answer is no, I haven't given that direction.

Q. Okay. So, Micron has not pursued any efforts -- in the three years it's had since you personally became aware of the allegations has made no efforts to design products that it believes will not infringe, correct?

A. We've continued to design new products. With reference to whether they might infringe the claims that you're referencing and which I don't know the details of those claims, I'm not aware of that.

Q. Let me ask it this way: Has Micron taken any steps to design DRAM that does not include programmable CAS latency?

A. I don't know the detail on that.

Q. Well, you told us earlier there is a lot at stake for Micron if it should lose the patent infringement cases with Rambus, correct?

A. Yes.

Q. I mean, 95 percent of your current production is at risk. Am I right?

A. Yes.

Q. And you don't know whether Micron is capable of designing and manufacturing a product that will not infringe?

A. You're making an assumption that we believe it will infringe.

Q. Well --

MR. POWERS: Your Honor --

JUDGE McGUIRE: Mr. Powers?

MR. POWERS: Thank you.

The earlier question that you ruled on went to Mr. Appleton's directions and instructions. This one goes further and goes to his state of mind regarding infringement, which even more directly encroaches not only upon the work product doctrine but upon advice

he's received from his lawyers. Crossing that line I believe crosses a very new line --

JUDGE McGUIRE: Sustained.

MR. POWERS: Thank you.

BY MR. STONE:

Q. Let me ask it this way, Mr. Appleton: Have you assigned any group of engineers to develop products that will eliminate one or more of the four features at issue in this case, programmable CAS latency, programmable burst length, dual edge clock or the use of DLL or PLL on the chip?

MR. ROYALL: Your Honor, I would object that the question lacks foundation. He's established no foundation --

JUDGE McGUIRE: Overruled.

THE WITNESS: Never in any of my responsibilities at Micron have I ever assigned engineers to do something of that detail. That would not be something that would be normal or typical for me to do.

BY MR. STONE:

Q. Okay. Are there products that are being designed by Micron today that you understand do not have the four features that I just identified for you?

A. Please repeat the question.

Q. Certainly.

There are four features at issue in this case, and let me just name them for you again so we're clear. Programmable CAS latency, programmable burst length, the use of dual edge clocking, the use of DLL or PLL on a chip.

With regard to those four features, have you assigned any group of engineers to try to design a product which eliminates those four features?

A. I have not nor would I have normally.

Q. Okay. And is there any group of engineers at Rambus -- I'm sorry, are there any group of engineers at Micron today who you understand have either designed or are working on a design of a product that would eliminate one or more of those four features?

A. I'm pretty confident our CMOS imagers probably don't have any of those.

Q. Okay. And the CMOS imagers we would not normally think of as a DRAM, correct?

A. You specifically are referencing DRAM, okay. I just wanted to --

Q. Let me reframe it, you're right, to be precise. I don't quibble with you for that.

Is there any group of engineers at Micron today who are designing or have designed a product that is a

DRAM that would not include the four features that I just described to you or some subset of those four features?

A. I simply don't know.

Q. Okay. The litigation that you mentioned that's occurring in foreign countries, that was filed after Micron sued Rambus, wasn't it?

A. Yes.

Q. The first lawsuit was initiated by Rambus in Delaware Federal Court, correct?

A. Yes.

Q. And that lawsuit was initiated according to Exhibit CX-1140, which we can bring up, on August 28th, correct, of 2000? If you could focus in on the email at the bottom half of the page.

A. I don't recall the exact timing, but I believe it was then or right around then.

Q. The first lawsuit was filed by Micron rather than Rambus, wasn't it? I misspoke in an earlier question, as Mr. Perry pointed out.

A. Yes.

Q. Okay. And in Exhibit CX-1140, you wrote to Mr. Tate, "Accordingly, we filed today a complaint that sets forth our antitrust and other objections to Rambus' business tactics," correct?

A. Yes.

Q. And you believed that statement to be true when you wrote it?

A. Yes.

Q. And you wrote it on August 28th of 2000.

A. That's what this indicates.

Q. So, at least at that time you believed that Micron had filed the lawsuit on that date.

A. Yes.

Q. Okay. And you wrote this email in response to an email you received from Mr. Tate on August 24th, correct?

A. No.

Q. Okay, let me go back. In the first line it says, "In response to your August 24 email."

A. Oh, I'm sorry, I thought you were referencing his email to me above it.

Q. No.

A. Okay.

Q. I'll slow down. I may be going too fast.

When you wrote Mr. Tate an email on August 28th of 2000, you were responding to his email to you of August 24th of 2000, correct?

A. Yes.

Q. Okay. Now, is that -- earlier in your

testimony today you referred to a letter from Mr. Tate.

A. It could have been a letter. It would be helpful if we actually had it or you could show it to me, it might refresh my memory as to the form.

Q. Do you -- and do you retain those emails?

A. No.

Q. How long do you retain emails?

A. Well, our system I believe retains them for 90 days, and then it deletes them unless you do something special to keep the email.

Q. So -- and do you keep a log of emails when they're deleted from the system?

A. I don't. I -- I don't know.

Q. Okay. So, you received an email, according to this, from Mr. Tate on August 24th, Micron filed a lawsuit on August 28th, and presumably three months later the email you had received from Mr. Tate was deleted from the system, correct?

A. It could have been. You're saying the -- the general practice is three months, but that doesn't mean that it didn't end up in somebody's file somewhere. I certainly didn't have it any longer, but it may exist somewhere in the company in somebody's file.

Q. Did you direct anyone at Micron to take any steps after the lawsuit was filed against Rambus to

preserve any emails that related to communications that you yourself were having with Mr. Tate or others at Rambus?

A. Well, our legal department gave that direction.

Q. And so was your -- the email you received from Mr. Tate on August 24th retained?

A. The question as to when -- when are you asking about when they gave that direction?

Q. After -- sometime after the lawsuit was filed on August 28th, was that direction given?

A. It -- it -- I just don't recall. I don't recall the timing of when it would have been given, at the time, before that time or directly after the time.

Q. Well, after the lawsuit was filed, did you take any steps to preserve your emails that related to the communications you were having in August of 2000 with Mr. Tate?

A. Well, the way it typically works -- because, of course, this isn't the only litigation -- is that once the legal department makes a determination that we need to preserve whatever's in place for the scope and what's being required, essentially the IS department will then take a picture, so to speak -- doesn't quite work that way, but they take essentially a snapshot of all of the data that's existing in the company on its

systems and then preserves it.

Q. And was the August 24 email from Mr. Tate preserved so far as you know?

A. I just -- I don't know.

Q. Okay. In that email, is it your recollection that Mr. Tate proposed a royalty of 1 percent on current products that were then in production and 3 and a half percent on later products, follow-on products?

A. I'm sorry, repeat that question.

Q. Certainly.

A. Caveat, by the way, I don't think I've ever determined in my mind whether it was an email or a letter.

Q. Fine, let me withdraw it.

A. So, when you say "preserve it," I don't even know if it was an email to preserve it.

Q. If it was a letter, would it have been preserved?

A. Again, the same -- you know, same process.

Q. Three months and letters are gone, too, correct?

A. Ah, well, it depends on the individual.

Q. In your case, do you have a practice?

A. I generally don't keep materials.

Q. In the letter or email that you received from

Mr. Tate on August 24th that is referenced in your August 28th email, is it your testimony that he said the royalty rates would be 1 percent on current products then in production and 3 and a half percent on follow-on products?

MR. ROYALL: Your Honor, can I interpose an objection here? The document that Mr. Stone is asking about is the same document that he objected to me asking questions about on grounds of the best evidence rule, and now he's seeking to probe questions about that same document with this witness.

MR. STONE: Your Honor, I'm asking about the testimony the witness gave, which was -- I want to know the source of his understanding as to the numbers he testified to.

JUDGE McGUIRE: I'll entertain it on that basis only.

THE WITNESS: I don't recall the -- whether it was in both public and communication where I came across that knowledge, because it was at that time well published in the media as to what was being requested, and I simply don't recall, you know, how I came to that understanding.

MR. STONE: Okay. Your Honor, I'd like to mark as RX-2303 a document bearing production number

RF0642951 through 52, if I might.

If I may approach and hand a copy to the witness?

JUDGE McGUIRE: Yes.

MR. STONE: And I will mark on the copy for the witness RX-2303.

JUDGE McGUIRE: Is it being offered at this time?

MR. STONE: No, I just want to mark it for identification.

(RX Exhibit Number 2303 was marked for identification.)

MR. STONE: And I don't have enough copies for everyone, Your Honor, I apologize.

JUDGE McGUIRE: That's all right.

MR. STONE: I brought down enough, but --

JUDGE McGUIRE: I can always grab yours if I need to.

MR. STONE: You certainly can, Your Honor.

BY MR. STONE:

Q. Let me do it this way. Will this give me the ELMO? Let me see if I can do this. I'm going to put my copy on there, and let me see if I can zoom in. I want to look first at the top part.

Do you see that the top part of this email is

an email to you --

JUDGE McGUIRE: All right, now again, just so it's clear, this is an email dated August 24th, 2000 from Geoff Tate.

MR. STONE: Right.

BY MR. STONE:

Q. I just want to direct your attention, Mr. Appleton, to the top portion of what I've marked for identification as RX-2303, an email from Geoff Tate to you dated August 24th.

Do you see that?

A. Yes.

Q. Take a moment and read it to yourself. It's not very long, maybe you have already, but let me know when you've read it.

A. (Document review.) Okay.

Q. Okay. Directing your attention just to the August 24th one, is that the email to which you were responding when you wrote your August 28th email that is part of CX-1140?

A. I don't remember.

Q. Okay. Well, I want you -- this is an email you received, is it not?

A. Yes.

Q. And I am correct, am I not, that Mr. Tate had

offered to come to Boise to meet with you to discuss a license under the Rambus patents for Micron's continued manufacture of SDRAM and DDR SDRAM?

A. Yes.

Q. And your response to his offer to come there to meet was to say four days after he made the offer, we have filed suit, correct?

A. Four days -- you mean --

Q. Weren't you on August --

A. You mean a week? I mean, it was about -- the 24th versus the --

JUDGE MCGUIRE: The date of the complaint, right?

MR. STONE: The 28th.

THE WITNESS: I'm just trying to look at the dates here.

BY MR. STONE:

Q. Let me just direct you --

A. The 23rd versus the -- okay.

Q. The 28th?

A. Is it the 28th versus the 23rd, is that the question?

Q. No, that's okay. I don't mean to make this so complicated.

You wrote to him, Mr. Appleton, on the 28th,

and you said we filed today a complaint.

A. Yes, I see it.

Q. Okay. On the 24th he had written you and said here's some dates we can come meet with you.

A. Yes.

Q. Okay. Now, just prior to his giving you those dates, am I correct, as shown on this second email down on RX-2303, that on the 23rd of August, you had said to him I received your email about meeting. I'm getting married next month, I think referring to September, and have our international sales meeting before then. I should be back in the office and have time available after the 26th. Let me know which days work best for you the following -- following that date.

That's what you wrote to him, right?

A. Yes.

Q. And you did get married, did you not, in September of 2000?

A. I did.

Q. That's a date you probably remember.

And you asked him to set up some dates for meeting with you after September 26th of 2000, correct?

A. Yes.

Q. And he wrote back to you and he proposed some dates after September 26th, right?

A. Yes.

Q. And you said, forget those dates, we've already sued you.

A. Yes.

Q. And his earlier email to you is at the bottom of this document, and I have highlighting on mine, which says -- which is dated August 18th, correct?

A. Yes.

Q. And you received that email, didn't you?

A. Yes.

Q. And he said then he wanted to give Micron the opportunity to license early and receive the best deal terms in return, correct?

A. Yes.

Q. And he then went on to say, "As you may be aware we have already signed and announced licenses with 3 companies: Toshiba, Hitachi and OKI. We have more in the process of negotiation."

Is that what your understanding was in August of 2000, that at the time you were contacted by Rambus, they had announced three licensing deals and were proposing a licensing deal with you on what were the best possible deal terms as they described them?

A. Well, my frame of mind was they had already litigated and that there were settlements from that

litigation and that there were currently -- there was current litigation going on besides these companies and that we were likely next.

Q. Well, he wrote you and offered a license on the terms that he described as the best possible deal terms, right?

A. Well, he did the same on the RDRAM license as well and indicated the same types of things, and that didn't turn out to be the case either.

Q. Well, I'll come back to the RDRAM license, but -- but when he wrote you and said, as you may be aware, we have signed and announced three license agreements, did you know the terms of those license agreements?

A. Only from what was in the press.

Q. Okay. And did you make a determination from what you read in the press that those terms were unreasonable?

A. I don't recall all the sorts of information I had regarding the terms.

Q. Prior to filing the lawsuit, did you ever talk to Mr. Tate, either by phone, in person, by email, in which he told you the terms on which they were willing to license Micron?

A. I don't recall, but I didn't believe it was --

would be productive based on the behavior that I have already described.

Q. And my question was, did you have any conversation, if not with Mr. Tate with anyone else at Rambus, before you filed the lawsuit in which they told you the terms on which they were willing to license Micron?

A. I don't recall.

Q. Okay. After you filed the lawsuit, some more license agreements were signed by other companies with Rambus, correct?

A. I -- I believe so.

Q. Samsung agreed to a license with Rambus, didn't it?

A. Yes.

Q. And you were called by a reporter and asked for your views on the Samsung license agreement, weren't you?

A. I could have been. I don't recall. I talk to the media a fair amount.

Q. Okay. Let me show you what's previously been marked as RX-1716.

May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. If we could bring that up. Mr. Appleton.

A. Thank you.

Q. This is a copy of an Electronic News online article that appeared November 6th of 2000, according to the date on it, and if you would, go down to the bottom two paragraphs and the heading right above it. Feel free to look at the entire article if you want, Mr. Appleton, I'm not going to rush you here, but I want to draw your attention to the quote that's attributed to you at the next to the last paragraph, where it says, "'We expected Samsung to settle with (Rambus) because they are weak. It's that simple,' said Steven Appleton, president and chief executive officer of Micron Technology. 'They don't want to stand up and assume a strategy that gets them into court in the United States. They want to avoid litigation. That has been their strategy all along.'"

Is that a -- I know reporters don't always get it right, but is this a fair reflection of what you said to the reporter in November of 2000 about Samsung taking a license from Rambus?

A. As we know, reporters often take liberty with words as they report the story, but I think that the -- in general, the concept is reflective of what my opinion was.

Q. Let me ask you about a few of the documents and demonstratives that Mr. Royall showed you earlier. I don't have any more typos to pick out, but let me ask you about a couple of them, if I could.

If we could bring up DX-115, this was the demonstrative that showed how Micron has obtained more and more patents over the course of time and risen in the U.S. patent rankings, correct?

A. Yes.

Q. And is it a fair statement that the majority of the patents that Micron obtains relate to either the design or manufacturing of DRAM?

A. Well, without reviewing the patent applications, I -- I can't say that, because we have --

obviously we have filed lots of patents in the flash arena previously and video RAMs, we have patents in our PC business and so forth. So, our patent portfolio, although a lot of it is DRAM, I know we have lots of other patents from other product categories.

Q. Okay, well, let me ask you about 2002 when you no longer were in some of those businesses, correct?

A. Um-hum.

Q. Would it be a fair statement to say that the majority of the patents obtained by Micron in 2002 related to either the design or manufacture of DRAM?

A. They were related to DRAM.

Q. Okay. And am I correct from your testimony earlier today that the vast majority of the DRAM that Micron manufactures is manufactured in accordance with JEDEC specifications?

A. Yes.

Q. Do you know how many -- one more question on that.

Is it also then a fair statement to say that the vast majority -- that the majority of the patents that Micron obtained, for example, in 2002 relate to JEDEC-compliant DRAM, either its design or manufacture?

A. Well, that may not be true, because JEDEC really doesn't deal with process and other things that are pretty specific to usually the circuitry or some type of function.

Q. How many of the -- what was it, something over 1800 patents obtained last year?

A. Well, it was over 1600 is what I said, but it probably will be that number this year.

Q. How many of the 1600 patents were disclosed to JEDEC?

A. I don't know.

Q. What steps did you take, if any, to ensure that all the patents were disclosed to JEDEC that you think,

as you described the policies and purposes of JEDEC, should be described -- should be disclosed?

A. I'm sorry, could you repeat that again?

Q. Sure.

You told us earlier today that you had an understanding as to the purposes of JEDEC, correct?

A. Yes.

Q. And that's based on what people at Micron have told you about JEDEC.

A. Yes.

Q. And you have some understanding of what you think are the policies of JEDEC, correct?

A. Yes.

Q. That's also based on what people at Micron have told you.

A. Yes.

Q. You've never attended a JEDEC meeting.

A. No.

Q. And you've never read any of the manuals or procedures of JEDEC, correct?

A. No, correct.

Q. Okay. So, based on what you've been told by people at Micron, you've formed some understanding as to what patents should or should not be disclosed to JEDEC, correct?

A. Say that question again.

Q. Based on what people at Micron have told you, you've formed some understanding as to what patents should or need not be disclosed at JEDEC.

A. Well, with respect to being applicable against the standard that's being developed --

Q. Yes.

A. -- I think that general understanding is true.

Q. Okay. And my question for you is what steps have you taken to make sure that whatever of those 1600 or more patents were received by Micron last year have been disclosed to JEDEC?

A. Well, I'm not typically involved in that process, and again, the philosophy is that if we know to disclose it, we will. If we hadn't, we wouldn't try to enforce it against the standard.

Q. But one of the four principles you told us of Micron is open standards, right?

A. To develop open standards products.

Q. And the key thing -- one of the key things you told us about open standards was disclosure of patents, right?

A. Disclosure of patents that would be used against the standard.

Q. Yes. And so if one of the four main principles

of Micron is open standards and if one of the key things to open standards is disclosure of patents that could be used against the standard, my question to you is, what have you as the president, CEO and chairman done to ensure that Micron is living up to what you think it should do?

A. Well, the interaction process is left up to the legal department and people that are representing us at JEDEC. I personally wouldn't be involved in trying to make those determinations.

Q. Okay. Have you checked with anybody to ensure that there's written guidelines for Micron's representatives at JEDEC to make sure they know what they should do?

A. I know that we would not enforce the patent against the standard.

Q. My question is a slightly different one, Mr. Appleton.

What have you done to ensure that there's written guidelines for Micron's representatives who attend JEDEC meetings to ensure that they conduct themselves the way you think they should?

A. I am personally not involved in that process.

Q. Is that consistent with, then answering my question, saying you haven't done anything in that

regard?

A. Yes.

Q. Okay. Let me ask you to look at DX-114, which was the financial results. Look, if you would, at the years 2000 and 2001.

A. Yes.

Q. The net sales in 2000 were slightly more than \$6,300,000,000, correct?

A. Yes. Just to clarify, it's a fiscal year basis, which really ends in August of 2000.

Q. And it started in 1999, in September of '99, and ended at August 31 of 2000, correct?

A. Correct.

Q. Then fiscal year 2001 begins in September of 2000 and ends in August of 2001.

A. Yes.

Q. And the net sales for 2001 is just under \$4 billion.

A. Yes.

Q. And the net sales number there is gross selling price less certain expense items, costs of manufacturing?

A. It -- no, net sales is a reflection of the gross revenues minus returns, refunds, those types of things.

Q. Discounts?

A. Discounts.

Q. Okay. Now, what accounts for the \$2.3 billion difference in net sales between 2000 and 2001?

A. A decline in selling price.

Q. Okay. Because by and large, you produced the same number of wafers in those two years, roughly speaking?

A. Well, in this case that would not have been true, because in 2001, we acquired the operations that we were in partnership with, Kobe Steel, which came out of the Texas Instruments acquisition.

Q. So, in 2001, you produced even more parts?

A. There would have been more wafers produced under Micron's umbrella than there were in 2000.

Q. So, the difference between the \$6.3 billion and the \$3.9 billion being attributed to selling price, the difference due to the selling price would be even greater than the difference in numbers because the volume in 2001 was higher.

A. I apologize for complicating this, but I just want to be clear so that you understand the data. We still sold product that was produced by Kobe Steel even though it wasn't being manufactured under Micron's umbrella, so we also had a partnership with respect to

other wafer manufacturing, and it will change these numbers. So, the fact that we sold it as opposed to manufactured it isn't completely indicative of the change in the numbers.

Q. But in any event, a fair statement would be the number one factor accounting for the difference in net sales between those two years was the selling price of the products?

A. Yes.

Q. And an increase in the selling price, as you had in the year 2000, is very lucrative for the company as opposed to a year like 2001 where the selling price wasn't as high, correct?

A. Yeah, I mean the numbers speak for themselves.

Q. And it was very lucrative to you personally as well, was it not?

A. That is true.

Q. Your own compensation in the year 2000, salary, options, stock, is reported in Micron's financial documents as being in excess of \$40 million, correct?

A. Yes.

Q. You didn't make anywhere close to \$40 million in the year 2001, did you?

A. Well, in fact, I have made it a personal policy that I have refused any salary since the company has

not been profitable since the middle of 2001. I haven't received any compensation.

Q. Did you -- I think you might have misspoke or maybe I misheard you, Mr. Appleton. Oh, you said has not been profitable. You've refused any salary since it has not been profitable?

A. Well, shortly thereafter. It took a while for the board to approve it, of course, but...

Q. So, for you personally as well as for the company, the difference between a year in which Micron makes a lot of money or a year in which it loses a lot of money is a big swing.

A. Yes.

Q. There's a lot of incentive on your part and on Micron's part to do whatever it can do to make sure that the selling price of its products is as high as possible.

A. Well, it's to get the greatest return for the shareholder. I mean, that's my responsibility as CEO.

Q. And in the short term, the one factor you can most affect is the -- if you can affect it -- is the selling price that will impact the return to the investors, correct?

A. We don't -- we can't control the selling price, so it would be nice if we could, but we can't, and I

suppose if we can, then yes, we would try to do what we could to get the profits of the company up.

Q. Okay. One of the subjects you talked about with Mr. Royall was the cost of equipment. Do you recall that?

A. Yes.

Q. And one of the issues you talked about I believe was the equipment lifetime, correct?

A. Yes.

Q. Now, I'm correct, aren't I, that Micron has done a study of the average lifetime of processing equipment used in the manufacture of DRAMs?

A. That is not correct.

Q. Did you testify before the International Trade Commission as to a study that had been done?

A. Yes.

Q. Who did the study?

A. It was an independently assigned group that was actually engaged by the Semiconductor Industry Association to do that study.

Q. Okay. And that study is something that you relied on for testimony that you gave to the ITC, correct?

A. Well, it's not only that study. It's also experience in our own business.

Q. Okay. That study and your experience is something you relied on for the testimony you gave to the ITC.

A. Yes.

Q. And that same study and your experience is something you've relied on in discussing the same subject with analysts on your quarterly conference calls, correct?

A. For the average lifetime cycle of a piece of equipment.

Q. Yes. And the average lifetime cycle for a piece of equipment used in DRAM manufacturing, according to your testimony to the ITC and the comments you've made to analysts in quarterly conference calls, is 3.7 years, correct?

A. For wafer fabrication.

Q. Yes.

A. That's not inclusive of assembly and test, but that's the study that was done.

Q. Okay. And that's the number that is also used by Micron in deciding what depreciation schedules to use for its equipment in connection with preparing its tax returns. Am I right?

A. I wish it were, but the IRS will not allow us to do that.

Q. Ah. So, for the IRS, you use a longer term, right?

A. That is correct.

Q. But for the sworn testimony you gave to the ITC, you used 3.7 years?

A. I wasn't talking about depreciation at the ITC. I was talking about useful life of the equipment.

Q. Okay. When you were describing to the ITC the useful life of the equipment, you said it's 3.7 years based on your experience and the study that was done.

A. The average.

Q. Yes. That was the average, right?

A. The average.

Q. Okay. Now, look, if you would -- well, let me ask you about burst EDO.

You told us earlier that you thought burst EDO had not been JEDEC standardized, correct?

A. Well, I -- I didn't think it had ever become a standard. Because it never got really implemented in commercialization, obviously, the way I described it, so I didn't think it had. Maybe I didn't recall it correctly. I just don't know.

Q. Okay.

A. In general, I'm sure, by the way, that we would have taken it to JEDEC. Whether they did a final

specification or standard on it, I just don't recall.

Q. Okay. So, if when Mr. Williams was here and testified, if he told us that JEDEC had standardized burst EDO, you wouldn't have any reason to disagree with his testimony, whatever it turns out to be in the record?

A. Which Mr. Williams are you referring to?

Q. Brett Williams of Micron.

A. Oh, I'm sorry. No, I wouldn't have any reason to believe that wasn't true.

Q. Okay. Let me ask you to pick up, if you would, Exhibit CX-2742. That's the Platform 99, Winning the DRAM Implementation Game.

A. Yes.

Q. Turn, if you would, to the first page of this. Can you tell from looking at the first page of this where this document was used or presented?

A. From the first page?

Q. Yes.

A. I cannot.

Q. Do you know whether this was a customer presentation?

A. If you can just bear with me for a moment and I'll look at it.

Q. Certainly.

A. (Document review.) I -- after looking at this document, I think a number of elements in here --

JUDGE McGUIRE: All right, now, there's -- wait a minute, you don't have to answer, because there's not a question on the floor, so --

THE WITNESS: Oh, I'm sorry.

BY MR. STONE:

Q. Can you tell whether or not this was a customer presentation, that is, CX-2742?

A. I can't tell for sure.

Q. Okay. Mike Seibert who's identified on the first page, what was his position at Micron in 1999?

A. He was in marketing.

Q. And who was the -- and it says here, "DRAM Strategic Marketing," and then it says "DRAM Marketing" underneath that.

A. Yes.

Q. Was there a department within Micron or a group that was the DRAM marketing group and then a subgroup within that that was strategic marketing, do you know?

A. I just don't -- I don't recall. The organization has changed since that time period, and I don't recall where he was at in that organization.

Q. And was Mr. Mailloux the head of DRAM marketing at this time?

A. In 1999, I believe he was.

Q. Okay. And that's M-A-I-L-L-O-U-X?

A. Yes.

Q. Okay. Turn, if you would, to page 3 of this document. You'll notice by SDRAM specification, it says JEDEC 21-C Compliant.

A. Yes.

Q. And then beneath that, on module design, it says PC100, and then beneath that, it has module reference Gerber, Intel PC100.

Do you see those references?

A. Yes.

Q. Do you know whether, in fact, the SDRAM manufactured by Micron in 1999 was being manufactured in compliance with a PC100 or 133 specification developed by Intel, which was -- had provisions that were in addition to the JEDEC specifications?

A. I don't know.

Q. Have you ever learned in the course of your work at Micron that the JEDEC specification for SDRAM was not adequate to ensure interoperability between different manufacturers?

A. I'm sorry, repeat the question.

Q. Certainly.

One of the reasons that standards are

attractive is that they allow everyone to manufacture parts which will be interoperable, so I can buy a part from Micron or I can buy a part from Samsung, and they should work interchangeably. Is that right?

A. In general, yes.

Q. I mean, that's the goal.

Have you ever heard that the JEDEC standards for SDRAM were inadequate to ensure interchangeability or interoperability among different manufacturers and that Intel had to step in and develop their own specifications to ensure that?

A. Well, often as the technology is being developed, the standard and the technology itself will often be being developed at the same time. In many cases something will be brought into JEDEC to be a standard even though a company has already thought of the idea or has already come up with something.

Q. And I appreciate that completely. My question was slightly different, if I could try it one more time and see if we can get there.

Have you ever learned in the course of your work at Micron that the specifications that JEDEC did develop for SDRAM were insufficient and that after those specifications were developed Intel had to come in and develop tighter or more detailed specifications

to ensure interoperability?

A. I don't recall anything about that.

Q. Okay. Earlier today, Mr. Royall showed you RX-828. That was the letter to you from Mr. Tate, if you could bring that up.

Do you have that document in front of you?

A. Yes, I do.

Q. Okay. I want to draw your attention to the -- a paragraph that you were asked about by Mr. Royall, which is the one that begins about middle way down the page, "But if Micron wants to increase."

A. I see it.

Q. Now, isn't it correct that Rambus was proposing to Micron that we'll give you one deal or we'll give you a better deal, but in order to get the better deal, you have to commit that we will be your exclusive high bandwidth DRAM following EDO?

A. There was a difference between the two offers.

Q. Okay. So, they said, here's one offer, but if you'll go with us exclusively for the high bandwidth DRAM following EDO, we can give you a better offer, correct?

A. Yes.

Q. Ultimately, you elected not to take the better offer because you didn't want to commit resources to

that being your only high bandwidth DRAM, correct?

A. Yes.

Q. Okay. Now, I looked through this roadmap that we looked at earlier to see if there was anything in it that was described as a high bandwidth DRAM other than Rambus, and I didn't see the words "high bandwidth" used anywhere except in reference to Rambus, but A, I might have missed it, and B, I suppose these other designs could be high bandwidth DRAMs and they just aren't called that in here.

So, I wonder if you wouldn't mind going back and looking for a moment at CX-2742 and telling me which of the products in here you would characterize as high bandwidth DRAMs, other than the RDRAM.

A. Well, will you define "high bandwidth" for me as to what your characterization is of that?

Q. Okay. Well, when you got the letter from Mr. Tate and it talked about high bandwidth DRAMs, did you have an understanding of what that was referring to?

A. At that time, but I don't recall that today.

Q. Okay. Do you have an understanding of what high bandwidth means in Exhibit CX-2742 when it refers on page 4 to RDRAM? Do you see there on the third bullet point where it says, "Benefit from high bandwidth"?

A. I'm sorry, what page was that on?

Q. Page 4.

A. Four. Okay, I'm sorry, repeat the question.

Q. Do you have an understanding of what is meant by "high bandwidth" in the context of the discussion of RDRAM on page 4 of CX-2742?

A. Well, later in the same material it talks about 600 megahertz.

Q. Okay. And if we use 600 megahertz as our definition of high bandwidth, were there any other products in 1999 that you would describe as high bandwidth manufactured by Micron?

A. That were achieving 600 megahertz, is that the question?

Q. If that's what we use as our definition.

A. In 1999, did we have any products -- I'm just trying to clarify the question, were we producing products that achieved 600 megahertz? I don't recall without looking at what SyncLink or -- was achieving at that time.

Q. Is there some definition of high bandwidth that you normally use in your business?

A. Well, we -- when you say our business, in the DRAM business, we don't often talk about it in terms of bandwidth. We talk about it in terms of access speeds

and nanoseconds, et cetera. In the computing world, though, they talk about it in terms of bus speeds, and it's typically a megahertz on those speeds, and that's what's being referenced here.

Q. Okay. And is there a cut-off that you use in deciding how many megahertz it is when it becomes a high bandwidth?

A. No, because it's all relative to the current time frame.

Q. Okay. Let's go back, then, to RX-828, and we'll go back to that same paragraph that we were looking at earlier, "But if Micron wants to increase the commitment a step further to 'put all your wood behind one arrow' with Rambus as your sole effort for high-bandwidth DRAMs following EDO/100 megahertz SDRAMs," then in return they will slash the fee and reduce the royalty.

Do you see that paragraph?

A. Yes.

Q. Can you think back to December of 1996 and help me understand what you thought when you received this letter Rambus was asking you to do in terms of what development did they want you not to proceed with and go exclusively with Rambus?

A. Rambus was requesting us not to develop any

DRAMs that would be capable of anything beyond 100 megahertz.

Q. And did you at that time have in the works an SLD RAM product that was expected to reach over 100 megahertz?

A. We could have. I don't recall the exact time frame on when the work was going on or what we expected of it.

Q. Do you recall what products at all were in the works in December of 1996 that were intended to achieve over 100 megahertz?

A. Well, there was quite a bit of discussion about synchronous DRAM achieving 133 megahertz, and then I think it went to 166, and discussion about possibly going to 200.

Q. And were those in production at the time?

A. I don't recall.

Q. You ultimately signed a license agreement with Rambus, did you not?

A. Yes.

Q. And you told us earlier today that was signed sometime in the spring of '97?

A. Yes.

Q. Let me show you what's been marked as CX-1646.

May I approach, Your Honor?

JUDGE McGUIRE: Go ahead.

BY MR. STONE:

Q. Mr. Appleton.

A. Thank you.

Q. I'll give you as much time as you want to look at the contents before I ask you about the document, but let me draw your attention, if I could, first to page 19.

A. Okay.

Q. Okay. Is that your signature in the lower right-hand corner?

A. I'm ashamed to admit it, but yes.

Q. Okay. And then to the right of your signature, there's something else.

A. Yes.

Q. Is that part of your signature or --

A. No, it's not.

Q. What is that?

A. We typically have a procedure where our legal documents are reviewed by the legal department, and they initial it when they have reviewed it.

Q. And so these are the initials of one of Micron's lawyers?

A. Yeah, it looks like it got cut off on the copy, so I'm not sure who it is.

Q. Okay. Then if you look at the next page, page 20 of the document --

A. Yes.

Q. -- does this indicate that you signed it on March 24th of 1997, and Mr. Tate on March 21st of 1997?

A. Yes.

Q. Okay. Then, if we could, let's go to page 10, and then we're going to take a look at page 11 of the document, but I invite you, if you feel the need at any point, to stop me and look at whatever portions you want to have context.

A. Okay.

Q. Does paragraph 5.1 on page 10 set out the engineering fee that you agreed to pay Rambus pursuant to the terms of this license agreement?

A. Yes.

Q. Okay. And then if you'd look at 5.2, which is at the bottom of page 10 and carries over, was there also an agreement to pay a license fee, a nonrefundable license fee?

A. I'm sorry, say that again.

Q. Certainly.

A. Which page are you on?

Q. At the bottom of 10 and the top of 11, paragraph 5.2(a), does that reflect an agreement on

Micron's part to pay a nonrefundable license agreement?

A. With respect to RDRAM.

Q. With respect to RDRAM.

A. With respect to the use of RDRAM is what ended up being the case here, because there's other sections that talk about other amounts of money related to other uses of the technology, but -- I'm sorry, your question was --

Q. Was this the provision as to what you would pay in terms of a nonrefundable license fee with respect to RDRAM?

A. Yeah, that section (a) in its totality, because there are two different sections that are about the amount.

Q. Okay. And then did you also agree to a royalty rate?

A. Yes.

Q. And is that set forth on page 11 in paragraph 5.3?

A. Yes.

Q. And did you agree to pay a 2 percent royalty which could be reduced to a 1.5 percent royalty in the event certain conditions were met?

A. Yes.

Q. And then did you take an option with respect to

later versions of the Rambus DRAMs where you would agree to negotiate in good faith over the royalty which would not exceed 5 percent? And that's paragraph (b) on page 11.

A. Yes.

Q. Okay. Did you also agree, looking at paragraph 4.5 on page 9 and carrying over to page 10, to exercise certain best efforts in connection with the manufacture, marketing and sale of Rambus DRAM?

A. Yes.

Q. And did you also agree that you would advertise, promote and distribute marketing collateral with respect to Rambus DRAMs to the same extent that those other DRAMs that were at similar levels of manufacture and/or development?

A. Yes.

Q. And when it says "marketing collateral," does that mean, as you understood the term, advertising, marketing brochures, pamphlets and anything else that you would add to that list?

A. I'm not -- I'm not sure that what I would have included in marketing collateral, I'm not sure that's a relevant point. Typically our marketing collateral is -- it is pamphlets and brochures and data sheets and specification books and so forth.

Q. And then it says, "In addition, Micron will make positive representations about Rambus interface technology to Micron's customers, potential customers, press and analysts," correct?

A. Yes.

Q. And that's something you agreed to.

A. Yes.

Q. Was there then a person in charge of marketing of Rambus DRAM?

A. Specific to marketing of Rambus DRAM? I -- I don't recall.

Q. Was the marketing of Rambus DRAM in the marketing department for DRAM that we talked about earlier that was headed by Jeff Mailloux?

A. Well, Jeff headed it for a period of time. I'm not sure if the leadership of that group changed at the same -- during the period of time that we were marketing RDRAM, but it was -- the responsibility was in the marketing group and as you described.

Q. Okay. Well, in July of 1999, as we talked about in connection with the roadmap, Jeff Mailloux was the head of DRAM marketing, correct?

A. I'm not sure, but I believe he was without going and looking.

Q. Okay. And was he also the head of DRAM

marketing in March of '97?

A. I don't recall.

Q. Okay. Let me show you a document, RX-1162, if I might.

May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. This is a document I showed you in your deposition, Mr. Appleton.

A. Yes.

Q. And RX-1162 is an email that was sent by Mr. Jeff Mailloux to others at Micron, including yourself, correct?

A. Yes.

Q. And the date on it is April 15th, 1998, correct?

A. Yes.

Q. And so this would be about 13 months -- 12 and a half months after you signed the license agreement with Rambus. Am I right?

A. Yes.

Q. And the email starts with a copy of what had appeared in the press where it says at the very bottom of that press release or that news item, "Investors are reacting to news that Micron has introduced a competing

DRAM chip."

Do you see that?

A. Yes.

Q. And that's because in April of 1998, Micron did announce that it was introducing a chip to compete with the RDRAM, didn't it?

A. I don't remember.

Q. Okay. And then at the top, what Mr. Mailloux says is, "Well if nothing else, I feel pretty good about reducing Geoff Tate's net worth."

Do you see that?

A. I see it.

Q. You understood that to be the Geoff Tate who had signed the Rambus license agreement on behalf of Rambus who was the Rambus CEO, didn't you?

A. Yes.

Q. So, the person who at least in 1999 was in charge of DRAM marketing with responsibility for marketing the RDRAM and living up to the marketing obligations we've looked at in the license agreement, CX-1646, was feeling pretty good in April of '98 about reducing Geoff Tate's net worth, according to what he says in the email.

A. Well, I don't know how he was feeling, and I didn't speak with Jeff about this. I suppose an

interpretation could be he didn't like Geoff that well.

Q. Well, I wanted to ask you about that. After you received this email and the person in charge of DRAM marketing at Micron, with responsibility to market RDRAM, writes you and says he feels pretty good about reducing Geoff Tate's net worth, did you communicate with him in any fashion to say, you know, we have contractual obligations to Rambus to market their product according to certain standards, and this attitude on your part is not appropriate?

A. Well, this is chitchat. It didn't change the fact that we did market Rambus.

Q. Well, I didn't ask you whether you did or didn't, I'm going to get to that issue, but I'm just asking you whether you said to him, you know, you have to show a different attitude about your commitment to the product consistent with what I, Steve Appleton, said we would do in the contract I signed.

A. We were doing what we said we were going to do. I didn't ascribe any significance to this at all. I never even bothered to ask about it.

Q. Never talked to him about it?

A. Nope.

Q. Never talked to his direct superior about it?

A. Unfortunately, email has replaced kind of the

chitchat that occurs in the hallways or on the phone, and I didn't ascribe any significance to it with respect to the behavior of Micron.

Q. And you didn't take any action in response to it.

A. No.

Q. Now, we looked earlier at a press release, which is -- was RX-1464. That was the announcement of delivering the samples. Do you remember that? Delivering the samples to Intel.

A. Yeah, I do remember it. Let me see if I can --

Q. And the announcement of delivering the samples to Intel came after --

A. Can you hold just a second?

Q. Yeah, I'm not going to ask you anything about the document.

A. I just wanted to make sure I could hear you while I was looking for it. Okay, I have it.

Q. Okay, the announcement of the shipment of these samples to Intel came after Intel had made the investment in Micron that you also talked about, correct?

A. Yes.

Q. And do you recall independently when that investment was made by Intel?

A. Yes.

Q. When was it made?

A. It was in the fall of 19 -- I'm sorry, I believe it was in late 1998.

Q. Okay.

A. I don't remember the time of when the actual investment occurred as to when we actually concluded the transaction.

Q. Let me show you a press release, RX-1294.

May I, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. Do you recognize RX-1294 as a Micron press release announcing the investment by Intel in Micron?

A. Yes.

Q. Okay. And look, if you would, at the third paragraph, which again attributes certain statements to you.

A. Yes, I see that third paragraph.

Q. Now, are these statements that you authorized be made and attributed to you at the time of this press release?

A. Let me look here and read it. (Document review.) Yes.

Q. Okay. And then following that, about nine

months later I guess, in June of 1999, you shipped your first samples to Intel, which is reflected on the press release we looked at earlier, RX-1464, correct?

A. Yes.

Q. And at that time, in June of 1999, you said that you expected to be in production with Rambus devices that fall, didn't you?

A. I said the latter half of '99, which would, of course, include all the way up to December 31st.

Q. Oh, okay. I'm -- maybe I misread it. If you look at the second paragraph of RX-1464, you'll see the second sentence, a quote attributed to you where you say, "By focusing RDRAM development on 0.18 micron process technology, Micron will deliver very competitive memory products for the introduction of Rambus-based systems this fall."

A. Yeah, I apologize. There were two date references in that paragraph.

Q. Okay. So -- and a Rambus-based system was going to have the RDRAM in it, right?

A. Yes.

Q. So, in June of 1999, you were saying we are going to be delivering RDRAM in the fall of 1999, correct?

A. Yes.

Q. And the samples that you delivered to Intel had been tested at Micron before they left, hadn't they?

A. Yes.

Q. And they worked.

A. They worked in the system that we had, but the way that Intel goes through their validation process is they don't give us the platform and the way that they necessarily do it, so it -- in fact, we have an issue today, by the way, where the fact that they may work in our system, we ship it to Intel for validation, and it may not work in their system. They have further -- they have a different type of process that they use, and they just may not be the same.

Q. But what you shipped to them worked in your system at least.

A. For that -- well, that's not entirely true. Often we sample even though there may be errata data sheets. In other words, we may say we're sampling you, but this particular spec doesn't work or this particular refresh doesn't work, so that we give them notice that the whole thing may not work in totality, but customers often want the samples as soon as we can deliver them, what we call a functioning die, even though it may not be full spec.

Q. Well, at the time you issued the press release

at least in June of 1999, you expected to be able to ship in production volumes RDRAM product in the fall of that same year.

A. Yes, we did.

Q. Okay. Nothing in your testing or validation internally led you to think you weren't going to do that, did it?

A. We believed at that time, whatever the difficulties were with the device, that we could overcome them at the time we made the statement.

Q. Okay. The -- you ran some ads, didn't you, in addition to the Rambus ad that we were given copies of yesterday that you've seen recently?

A. Yes.

Q. And those ads ran in the latter half of 1999, didn't they?

A. I would have to look at it. There's a date on those ads that would actually tell you the approximate time that they were ran.

Q. Well --

A. I thought --

Q. Go ahead.

A. It varies over time, so...

Q. I'm going to show you a document to see if I can jog your recollection, and I'm not suggesting

you've seen it before, but we used it just the other day. It's RX-1445.

May I approach, Your Honor?

JUDGE McGUIRE: Yes.

THE WITNESS: Thank you.

BY MR. STONE:

Q. Mr. Appleton, you know Pete MacWilliams at Intel, don't you?

A. I have met him before. I wouldn't qualify it as knowing him, but I've met him before.

Q. Okay. And we showed him this document when he was here to testify, and I just want to direct your attention to the second page of RX-1445.

In the email in the middle of the page from Pete MacWilliams to several other people at Intel -- just pick up the header information and then the first big paragraph there.

I just want to -- do you see it talks about a date of April 19th, 1999, and then it talks about running ads for PC133 like the "wall" and "sheep" ads they ran for SyncLink and DDR.

Do you see that reference?

A. Yes.

Q. Okay. Does the reference to "wall" and "sheep" ads for SyncLink and DDR ring a bell with you? Do you

know what ads that refers to?

A. Yeah, I looked at them earlier.

Q. Okay.

MR. ROYALL: Your Honor, could I just interpose an objection here, that he's acknowledged that the witness -- the witness' name is not on this. He hasn't laid any foundation the witness has ever seen it. I don't have any problem if he's refreshing recollection, but it sounds like he's asking now about other ads than the prior question related to, which was the RDRAM ads. So, I'm not sure what the use of this document is being used for.

JUDGE McGUIRE: All right, Mr. Stone, maybe you can clarify what you --

MR. STONE: Yeah, I just -- when it makes reference to the "sheep" and "wall" ads, Your Honor, I want to make sure that he knows -- that that means something to him, so when I show him these ads, I know I'm showing him the "sheep" and "wall" ads.

MR. ROYALL: Well, I don't think that's a proper use of the document that he's laid no foundation with.

JUDGE McGUIRE: I agree, sustained. Why don't you try to lay that foundation in some other way, Mr. Stone.

MR. STONE: Sure, I'd be happy to, Your Honor.

BY MR. STONE:

Q. Let me show you three other ads, and we can bring them up, I think. Yeah, that's good. We'll -- this one, which I'm going to refer to for the moment as RX-2304, if I might, Your Honor, just to mark it for identification.

JUDGE McGUIRE: Yes.

(RX Exhibit Number 2304 was marked for identification.)

BY MR. STONE:

Q. Is RX-2304 a document that you saw recently?

A. I'm sorry, I don't see -- oh, that's what's on the screen here.

Q. Well, do you want a hard copy?

A. Well, I can't read any of the writing if you are going to ask me about any of that.

Q. That's okay, take mine.

A. Okay, thank you.

MR. STONE: Oh, may I belatedly request permission to approach, Your Honor?

JUDGE McGUIRE: You may.

MR. STONE: I apologize.

JUDGE McGUIRE: You get caught up, and I understand. Just don't make it a habit.

MR. STONE: I won't.

BY MR. STONE:

Q. Directing your attention to what I've marked for identification as RX-2304, do you recognize that to be an ad that was run by Micron?

A. Yes.

Q. And can you tell us from either your recollection or anything else when this ad ran?

A. At the bottom of it, it says 1998.

Q. Okay. And would that be consistent with your recollection?

A. I -- I don't have that much specificity on when the ad ran.

Q. Is this an ad for SLDRAM?

A. Yes.

Q. And did Micron ever manufacture in production quantities SLDRAM?

A. We never commercialized SLDRAM.

Q. Okay. Do you know as to this ad where it ran?

A. I don't.

Q. Now -- and you were asked by Mr. Royall about the RDRAM ad, if you knew where it ran, and you said you didn't.

A. I didn't.

Q. Do you know how much money was spent to run the

RDRAM ad?

A. No.

Q. Or how much was spent on this ad?

A. I don't.

Q. And is there an ad agency that was used by Micron in the 1998-1999 time frame?

A. I don't know. I don't recall.

Q. Could we turn to the next ad in the sequence, which we will mark as RX-2305, if we can.

(RX Exhibit Number 2305 was marked for identification.)

MR. STONE: May I approach, Your Honor, and hand the witness my copy?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. I've written RX-2305 in the upper right-hand corner, Mr. Appleton, to keep track of it.

A. Thank you.

JUDGE McGUIRE: Now, that is a "RAM," I take it.

MR. STONE: That is a "RAM," Your Honor, but it's way up in front.

THE WITNESS: Your Honor, I don't actually see any horns on these, so I'm not sure.

JUDGE McGUIRE: Overruled.

BY MR. STONE:

Q. And is what we've marked as RX-2305 a copy of an ad that Micron ran?

MR. ROYALL: Your Honor, I'm not sure, is there a standing question at this point?

BY MR. STONE:

Q. Yes, the question is, is this a copy of an ad that Micron ran?

A. I'm sorry, I couldn't hear you.

Q. Oh, I'm sorry.

Is this a copy of an ad that Micron ran?

A. I believe so.

Q. And when did it run?

A. At the bottom, it says sometime in 1998.

Q. And the very last line of the text says, "Because nobody should decide where you're going, except you."

Do you see that?

A. Yes, I do.

Q. Was there a reference intended in this ad that someone else was deciding where DRAM customers should go?

A. I -- I didn't develop this ad, as I mentioned on the prior ad, so I -- I don't -- I mean, I don't know what the reference is there.

I'm sorry, repeat the question.

Q. Sure.

Wasn't there an intent -- I'll just reframe it.

Wasn't it the intent of this ad to communicate that customers should go with a choice other than one that had been announced as Intel's preference?

A. Well, that's not my interpretation.

Q. Okay, go back up to the full text.

This was an ad that was announcing Micron's DDR SDRAM, correct?

A. Yes.

Q. Was Micron running this ad to persuade customers not to buy single data rate SDRAM?

A. No.

Q. Were they running this ad to persuade people to think for themselves about choosing DDR SDRAM?

A. We were running this ad to let the customer know that we had DDR SDRAM available, as we did other products.

Q. And what product was in the market at the time this ad, RX-2305, ran that was running at speeds similar or higher than DDR SDRAM?

A. I would have to go look. The way that the speeds are categorized between Rambus and DDR are slightly different, because I believe there's a

doubling of the data path. I don't know if they call it dual channel or what they call it. So, when you say DDR running at, you know, 166 megahertz, that may mean that's the equivalent of 320 megahertz if you were to do it in the same way that Rambus was measuring it. So, I just don't know.

Q. Okay, let me ask it differently, and if you don't know, we will just move on I suspect.

Wasn't this ad intended to persuade customers to purchase DDR SDRAM rather than RDRAM?

A. No.

Q. What was it intended to persuade them to purchase DDR SDRAM instead of?

A. It wasn't intended as an "instead of." It was intended to let the customer know we had a variety of products, now including DDR SDRAM, and they could make the choice what they wanted to buy.

Q. And was there any product at the time that was thought by Micron to be in competition with DDR SDRAM other than RDRAM which you were offering?

A. The -- well, the customer decides what they want to use for the application. We don't. We continued making EDO, we were making synchronous DRAM, we obviously were announcing the DDR. In fact, EDO is still used today by customers.

Q. Maybe I misheard you earlier. I asked you, I said was this an effort by Micron to persuade customers to purchase DDR SDRAM as opposed to single data rate SDRAM, and you said no.

A. And I said no.

Q. Okay. Was this an effort to purchase -- to persuade customers to purchase DDR SDRAM instead of EDO?

A. No.

Q. Okay. One last ad which I'll mark as 23 -- RX-2306, which would be the next in order.

May I approach and show the witness, Your Honor?

JUDGE McGUIRE: Yes.

(RX Exhibit Number 2306 was marked for identification.)

BY MR. STONE:

Q. This is the picture of the dog chasing its tail. Is that your description, Mr. Appleton?

A. Yes, that would be right.

Q. And is this a Micron ad?

A. Yes.

Q. And is this a Micron ad for PC133 SDRAM?

A. Yes.

Q. And can you tell us the time frame in which

this ad ran?

A. At the bottom of this ad, it indicates it was sometime in 1999.

Q. Okay. And again, you wouldn't know more about where this ad ran or how much you spent on it than you did with the others, would you?

A. No, I would not.

Q. Let me show you RX-1700.

May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. Directing your attention to RX-1700, which is an email dated September 1, 2000 from M. Sadler to a group, S/M Worldwide, do you see that?

A. Yes.

Q. Do you know an M. Sadler at Micron who was employed there in September of 2000?

A. Yes.

Q. And is his first name Mick or his nickname Mick?

A. His first name is Mike.

Q. Okay. What was his position in September of 2000?

A. He was vice president of sales.

I'm sorry, Your Honor, can I just take a

second, get some water?

JUDGE McGUIRE: I'm sorry, what's the --

MR. ROYALL: The witness was asking for water, Your Honor. I was going to note that we've been going for a few hours. I don't know if it's a convenient time --

THE WITNESS: No, we have some water here if --

MR. STONE: Maybe we should take a break, Your Honor.

JUDGE McGUIRE: Well, you tell me when is a good breaking point.

MR. STONE: Any time is convenient for me, Your Honor.

JUDGE McGUIRE: Well, let's take a break. Everyone is already up. Let's take a ten-minute break.

THE WITNESS: I'm sorry.

JUDGE McGUIRE: No, that's all right.

(A brief recess was taken.)

JUDGE McGUIRE: On the record.

Mr. Stone, you may proceed with your examination.

MR. STONE: Thank you, Your Honor.

BY MR. STONE:

Q. Mr. Appleton, directing your attention back to RX-1700, Mike Sadler in September of 2000 was Micron's

vice president of sales, correct?

A. Yes.

Q. And at the very top, before the first numbered paragraph, he says, "Another spectacular quarter in which there are too many accomplishments to list on 1 page but I'll give it a shot with the following," and he then goes on, and I direct you all the way down at the bottom to number 11. He says, "Finally, thanks largely to Micron's efforts, established PC133 and DDR as mainstream memory solutions for the PC industry in favor of another proposed solution, RDRAM."

Do you see that?

MR. ROYALL: Your Honor, could I interpose an objection at this point? I don't think that Mr. Stone has laid any foundation that Mr. Appleton has ever -- ever received this or has ever seen it before.

JUDGE McGUIRE: Sustained.

BY MR. STONE:

Q. Was it Micron's position in September of 2000 that thanks largely to its efforts, PC133 and DDR had been established as mainstream memory solutions for the PC industry in favor of RDRAM?

A. In September of 2000?

Q. Yes, sir.

A. I don't think in general the company had that

perspective.

Q. Did it come to your attention in September of 2000 that the vice president of sales had expressed that?

A. No.

Q. "S/M Worldwide" means sales and marketing worldwide, correct?

A. It means the people who report up through him.

Q. Who are part of sales and marketing?

A. I don't know about the marketing part, but for sure the sales.

Q. And you showed us earlier on a map of the world, you showed us sales offices sprinkled all over the world. Do people in each of those offices report to Mr. Sadler?

A. In each of the sales offices?

Q. Yes.

A. They may not report to Mr. Sadler, but they report in to his organization.

Q. Okay. And was it your understanding that in September of 2000, an email that was sent to S/M Worldwide was going to go to people in each of those offices throughout the world, the sales offices?

A. If he sent this -- if this was an -- let me make sure I understand the question. If he sent an

email to his worldwide sales or sales and marketing organization, would it go to everybody in the world, is that the question, that reported through his organization?

Q. Yes.

A. Yes.

Q. Okay. And in September of 2000, was Micron still a licensee under the terms of the license agreement we looked at earlier?

A. Of the RDRAM license? Yes, litigation had already started at this point in time.

Q. Of the RDRAM license.

A. Yes, I believe so.

Q. And was it still your direction to the company that the company live by the commitments in terms of marketing and not say anything bad about RDRAM that you had signed in that license agreement?

A. Well, "not say anything bad" throws me a little, because that's not what was said in the RDRAM agreement.

Q. The RDRAM agreement said --

And Your Honor, could I put up -- I have that language on a board. Would you mind?

JUDGE McGUIRE: Go ahead.

(Discussion off the record.)

BY MR. STONE:

Q. Just so I don't have to keep referring to that document, the sentences I cared about or I wanted to ask you about here in paragraph 4.5 are on the board that I put up, which I think would be DX-116, I think -- I don't have the --

JUDGE McGUIRE: Yes, we will use 116, and if need be, we will correct it.

(DX Exhibit Number 116 was marked for identification.)

BY MR. STONE:

Q. Where it says in the last sentence, "Micron will make positive representations about Rambus Interface Technology to Micron's customers, potential customers, press and analysts," did you understand "Rambus interface technology" there to be a reference to the interface technology included in the RDRAM product?

A. Yes.

Q. Okay. And was it still Micron's obligation, as you understood it, in September of 2000 to make positive representations to customers and potential customers about the interface technology in the RDRAM product?

A. Yes.

Q. And was it your direction to the company that they do so?

A. Well, at this point in time, I wasn't redirecting people in the company. The agreement had been in existence. We had obviously started litigation with Rambus, which was different from the Rambus interface technology that you're referencing here.

Q. Did you give --

MR. ROYALL: I'm sorry, Your Honor, could I ask that the document that was noted -- there is no foundation that he's ever seen or received this document. Could I ask that that be pulled down from the screen?

JUDGE McGUIRE: Could you ask that what, it be pulled --

MR. ROYALL: This document be pulled down from the screen. They just did it, thank you.

JUDGE McGUIRE: All right, Mr. Royall. Can we do that?

MR. ROYALL: They have done it.

JUDGE McGUIRE: Okay.

MR. ROYALL: Thank you.

BY MR. STONE:

Q. In September of 2000, is it a true statement that Micron had prior to that time been exerting its

efforts to establish PC133 and DDR as mainstream memory solutions over RDRAM?

A. It wasn't over RDRAM. It was in addition to RDRAM.

Q. Was it a true statement in September of 2000 that prior to that time, Micron had been exerting its efforts to establish PC133 and DDR as memory solutions in favor of RDRAM?

A. I'm sorry, say that again.

Q. Sure, certainly.

In September of 2000, was it a true statement that prior to that time, Micron had been exerting its efforts to establish PC133 and DDR as memory solutions in favor of another proposed solution, RDRAM?

A. It was in addition to RDRAM.

JUDGE McGUIRE: All right, let me clarify for myself. What does this -- what do you take that to mean when you say "in favor of"? Does that mean in lieu of?

MR. STONE: Yes.

JUDGE McGUIRE: Is that your understanding?

MR. STONE: It does.

JUDGE McGUIRE: Is that the context of this question?

MR. STONE: That's what I understand it to

mean, Your Honor.

JUDGE McGUIRE: All right.

BY MR. STONE:

Q. Did you understand my question in that --

A. Yes.

Q. Okay. If Mr. Sadler was operating in September of 2000 and previously to try to exert his organization to establish PC133 and DDR as memory solutions for PCs in lieu of another proposed solution, RDRAM, was that something that you knew about?

A. Well, first of all, Mr. Sadler, to be clear -- because you said prior to that time frame -- only became the vice president of sales -- I believe it was sometime in late '98 or '99. So, he wasn't responsible for it prior to that.

Q. If in '98, '99 and the first three quarters of 2000 Mr. Sadler was instructing his organization to try to exert their efforts to establish PC133 and DDR as the memory solutions for PCs in lieu of another proposed solution, namely RDRAM, is that something that you were aware of?

A. I wasn't aware of that.

Q. Okay.

A. But -- but Mike is simply -- I'm sorry, Mr. Sadler is selling the product. He's not marketing it

or manufacturing it. He's simply selling what he's given to sell to the customer.

Q. And as of September of 2000, Micron was not giving him any RDRAM to sell, was it?

A. That is correct.

Q. In April of 1999, what was Mr. Donnelly's position?

A. I believe, without going back and looking at the record, he's been a vice president of the company for I think over a decade. He at one time was responsible for vice president of DRAM products, and that has since changed, and there was a time in there when the organization changed and he became responsible -- as I described earlier to Mr. Royall, we changed the organization according to applications, and he then became responsible for vice president of computing and consumer.

Q. And Mr. Mailloux you've talked about, and earlier you were asked about Mr. Walther and Mr. Lee who attended JEDEC meetings along with others from Micron, correct?

A. Yes.

Q. Is there a Mr. Seibert who worked at Micron in April of 1999?

A. Yes.

Q. And was there a Mr. Ryan, Kevin Ryan, who worked at Micron in 1999?

A. I believe so.

Q. Did any of those people, Donnelly, Seibert, Ryan, Mailloux, Walther, Lee, report to you in 1999?

A. Only -- only Mr. Donnelly.

Q. Okay.

Maybe, Your Honor, I should move in evidence some of the documents I've covered earlier so I don't have a big stack at the end before I go into this next one, and let me see if I can do that. The document that I marked as RX-2303, the emails from Mr. Tate to Mr. Appleton and from Mr. Appleton back to Mr. Tate, I would like to move in at this time.

JUDGE McGUIRE: Objection?

MR. ROYALL: Your Honor, I do not object to that. I would just note for the record that that is not a document that was on Rambus' exhibit list, but we don't object.

JUDGE McGUIRE: So noted and entered.

(RX Exhibit Number 2303 was admitted into evidence.)

MR. STONE: RX-1716, the article quoting Mr. Appleton, I'd like to move in.

MR. ROYALL: No objection.

JUDGE McGUIRE: Entered.

(RX Exhibit Number 1716 was admitted into evidence.)

MR. STONE: The Rambus-Micron license agreement, CX-1646, I would offer at this time.

MR. ROYALL: No objection.

JUDGE McGUIRE: Entered.

(CX Exhibit Number 1646 was admitted into evidence.)

MR. STONE: RX-1464, the press release I would offer at this time.

MR. ROYALL: No objection.

JUDGE McGUIRE: Entered.

(RX Exhibit Number 1464 was admitted into evidence.)

MR. STONE: And the three ads, RX-2304, 2305 and 2306, I would offer at this time.

MR. ROYALL: No objection, Your Honor.

JUDGE McGUIRE: All entered.

(RX Exhibit Number 2304 was admitted into evidence.)

(RX Exhibit Number 2305 was admitted into evidence.)

(RX Exhibit Number 2306 was admitted into evidence.)

MR. STONE: And I would like to offer, Your Honor, the Sadler email, RX-1700, as a business record of Micron.

MR. ROYALL: No objection, Your Honor.

JUDGE McGUIRE: Entered.

(RX Exhibit Number 1700 was admitted into evidence.)

MR. STONE: Thank you.

BY MR. STONE:

Q. Let me now ask you, Mr. Appleton, did you become aware in about April of 1999 that Samsung had announced that it was going to start manufacturing production volumes of RDRAM?

A. I don't remember the time frame, but I do remember when they said that they were going to.

Q. And was that the first of the DRAM manufacturers to announce production volume manufacturing of RDRAM?

A. I don't remember.

Q. Do you remember any other ones who announced prior to that?

A. I don't remember in that time period.

Q. Okay. Was it brought to your attention by someone in the Micron organization when Samsung made that announcement?

A. I actually think I read it myself in a media publication.

Q. Okay. And then did you have conversations with anyone at Micron about that?

A. Oh, sure, I could have.

Q. Do you recall any of them?

A. I don't recall them.

Q. Let me show you what's been marked as RX-1444 and see if it at all refreshes your recollection.

May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. Mr. Appleton, let me just give you a little context for the document, and then look at it as much as you want.

Halfway down the first page of RX-1444 and then continuing throughout page 2 and page 3 is an article that appeared in, according to this, Electronic Buyers News on April 23 of 1999. So, that's a news article which you might look at. Then above that I believe are emails amongst various Micron employees.

A. (Document review.) Okay.

Q. Do you recognize this as an article that you saw in April of 1999 about Samsung's announcement?

A. Not really. I mean, I read so many articles.

Q. Does this at all jog your recollection as to the time frame that you read the article about Samsung's announcement?

A. No.

Q. Did anyone within Micron come to you after the Samsung announcement was made and say words to the effect of what the first email here says, the one right above the article, that Samsung, by announcing it was going to produce RDRAM, had broken ranks with the other suppliers and sold their soul to the devil?

A. I don't recall anything.

Q. It is true, is it not, that in April of 1999, Micron was not producing RDRAM in production volumes, correct?

A. That is true.

Q. And you can't identify any other company that was producing RDRAM in production quantities at that time either, can you?

A. Was or was not. I couldn't identify in either case.

Q. Okay. Was it your view in April of 1999 that Samsung's commencement of production of RDRAM posed a risk to the DRAM industry?

A. What do you mean by that?

Q. Well, did -- let me ask it this way maybe: You

were familiar with the Rambus business model, were you not?

A. At that time, yes, for the model that was at -- I assumed what it was at that time, yes.

Q. Did you have any concern in April of 1999 that if RDRAM was successful in the marketplace, that the autonomy of DRAM manufacturers such as Micron might be put at risk?

JUDGE McGUIRE: Mr. Royall?

MR. ROYALL: Your Honor, we again have a situation in which no foundation has been laid that the witness has ever seen this document or that his name is on it, and I object to it being --

JUDGE McGUIRE: Mr. Stone, I am going to ask that you lay a proper foundation.

MR. STONE: I'll just take it off the screen. I'm not even asking about the document. I'll just take it off the screen.

MR. ROYALL: That would be better.

JUDGE McGUIRE: Oh, okay, all right.

MR. STONE: There's no jury here. I'm not sure why we're so worried about what's on the screen, but --

JUDGE McGUIRE: Well, I mean, if you want to comment just for the record, I'll give you that opportunity.

MR. ROYALL: My only comment is my understanding is that the way the proceeding has proceeded previously is that if no foundation is laid, documents may be used to impeach, may be used to refresh recollection, but otherwise, it's not proper, and so that's all I was objecting to.

JUDGE McGUIRE: So noted, but it is true, there is no jury here.

BY MR. STONE:

Q. In any event, Mr. Appleton, going back to my question -- let me just rephrase it.

Did anyone in the Micron ranks come to you and say in April of 1999 they thought Samsung's announcement that it was going to start manufacturing RDRAM in volume posed some risk to the autonomy of Micron or any other DRAM manufacturers?

A. Not that I recall.

Q. Did Mr. Donnelly ever come to you in April of 1999 and say that he wanted to make the point that Intel was going to disable the marketing, applications and design of the DRAM manufacturers through its promotion of RDRAM?

A. Not that I recall.

Q. Okay. Micron was active in SyncLink, was it not?

A. Yes.

Q. And you endorsed the efforts of SyncLink, didn't you?

A. Yes.

Q. And we saw earlier an exhibit that Mr. Royall showed you which was an email that you wrote to Mr. Tabrizi, correct?

A. I -- was it an email or a letter?

Q. Well, that's a good question, one or the other.

A. I believe what I sent to Mr. Tabrizi, although I can't remember with certainty, I think it was a letter and that this is simply an email somewhere where he included it.

Q. Okay, so let's bring up RX-802. Is that the document you're referring to?

A. It's RX-801.

Q. Oh, bring up RX-801 then.

If we look at the second page of RX-801, that is the letter that you wrote to Mr. Tabrizi at the request of one of the Micron marketing managers, correct?

A. Yes.

Q. Do you recall which marketing manager asked you to send it?

A. I -- I don't. It was likely either Jeff

Mailloux or Terry Lee.

Q. Okay. And were either Jeff Mailloux or Terry Lee involved actively in SyncLink, if you know?

A. Yeah, I think they were.

Q. Okay. Let me direct you, then, to the second page of RX-801 to this letter. When you said in the letter that the sharing of resources towards a common goal is probably unprecedented in the industry -- do you see that in the first paragraph?

A. I'm sorry -- oh, in the first paragraph?

Q. Do you see that line?

A. Hold on, please. Okay, I have it.

Q. Were you referring to it being unprecedented even when compared to JEDEC?

A. Yes.

Q. Okay. And in the second paragraph, when you said, the second sentence, "It is critical our industry continue to develop new expertise and intellectual property," do you see that?

A. Yes.

Q. Were you including patents in your reference to intellectual property?

A. Yes.

Q. And you felt it was important, did you not, in this time frame -- which I believe is November or so of

1996 according to the first page of Exhibit 801 -- did you believe it was important for the DRAM industry to collectively get patents on DRAM developments?

A. I don't think I thought it in terms of collectively.

Q. Did you understand that the inventions and innovations that were being made on the part of the SyncLink Consortium would be held collectively or individually by each company or in some other fashion, that you recall?

A. Well, my recollection is I'm differentiating between actually holding them as opposed to having access to them, and my understanding is the patents that actually got developed collectively would be held collectively. The patents that got developed individually but were applicable to the development effort would have access, open access, to.

I don't -- as I think about it, I'm not even sure how they would hold them collectively. Maybe they have ownership in their own companies on a partial basis.

Q. In the third paragraph, was it your belief in November of 1996, as it states here, that the future health of the DRAM industry will rely on the suppliers' ability to generate new intellectual property for high

frequency DRAMs?

A. Well, I'm trying to think back to that time frame as to what I was thinking, knowing that the -- that this was drafted in combination with whoever the marketing manager was that asked me to draft it. So, the thought process there clearly -- the future health of the DRAM industry needed to move to high frequency DRAMs as the platform moved in that direction, and that -- when I say generate new intellectual property, my perspective is that we continue to innovate and develop new types of technology.

Q. Look, if you would, at the last paragraph, the next to the last sentence. Was it your belief in November of 1996 that there should be a meeting of DRAM supplier executives to discuss how the DRAM industry can provide uniform support for SyncLink?

A. Yes.

Q. Did you ever call a meeting of the DRAM executives -- DRAM supplier executives to discuss how they could provide uniform support for RDRAM?

A. No, and we never did for SyncLink either.

Q. You did attend SyncLink meetings, did you not?

A. There were -- when you say "SyncLink meetings," the SyncLink meetings predominantly were -- I never achieved a SyncLink meeting where all the DRAM industry

came together, and the SyncLink meetings were generally done at the technical level, and there was occasionally a time period where some of us who were participating in SyncLink would be in the same location.

Q. Let me not cut you off, but let me ask you, the shorter you keep your answers to be fully responsive, the better for all of us, I think. Let me just ask you again.

Did you attend SyncLink meetings yourself?

A. I think I may have attended a SyncLink meeting.

Q. And was it attended by representatives of other DRAM suppliers?

A. Yes, but I don't know how many of them were there.

Q. And have you made any effort to review minutes of SyncLink meetings to refresh yourself as to which ones you attended?

A. No.

Q. Do you know a Mr. Pat Weber?

A. Yes.

Q. And Mr. Weber for a time was employed at Texas Instruments?

A. Yes.

Q. And was he a person at Texas Instruments with whom you negotiated?

A. With respect to what?

Q. With respect to the acquisition of certain assets of Texas Instruments by Micron.

A. No, he was not.

Q. Did you negotiate with him on other issues?

A. When you say "you," Micron did, but I never did.

Q. Did you have any meetings with Mr. Weber in the early 1997 time frame?

A. I saw Mr. Weber at probably most of the SIA -- the industry meetings that occurred, so I saw him, you know, on multiple occasions during whatever -- you know, on an annual basis, it was probably two or three times.

Q. And didn't you in early 1997 have a discussion with Mr. Weber about Rambus at an SIA meeting?

A. I don't ever recall having that discussion.

Q. You don't recall?

A. I don't recall it.

Q. Okay. I'm going to show you RX-1440, if I might.

Your Honor, may I approach?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. Directing your attention to what's been marked

and already admitted as RX-1440, is this a copy of an email that you received from Mr. Lee in April of 1999?

A. Yeah, it certainly looks like it.

Q. And the other addressee, Mr. Mailloux, is someone you've talked about earlier, correct?

A. Correct.

Q. You were being asked to sign a letter, and a copy of the letter you were being asked to sign is attached. Is that right?

A. I can only assume so.

Q. Take a look.

A. I'm sorry.

Q. Take a look at the next page, if you would.

A. The second attachment, okay.

Q. Sure.

A. Yes, I see it.

Q. And this -- could we bring back up for just a moment RX-1444?

And this is the -- the article at the bottom is the article about Samsung making their announcement, just the date of that article, if you would.

Do you recall we looked earlier, and it shows an April 23, 1999 date? Do you see that?

A. Yes.

Q. Okay. Now, you can take that down and come

back to RX-1440.

Was the letter that's attached as the second page of RX-1440 ever sent?

A. I don't know. I don't remember it being sent, but that doesn't mean it was or it wasn't.

Q. Was the effort to get this letter and send it to Intel abandoned right when Samsung announced it was going to start manufacturing RDRAM?

A. I'm sorry, repeat that first part of the question.

Q. Sure.

Was the effort to have you send the letter that is the second page of RX-1440 an effort that was abandoned once Samsung announced they were going to start manufacturing RDRAM in production volume?

A. Well, I don't -- I don't know. I don't know if the letter was ever sent.

Q. If you look at the email, which is the first page of RX-1440.

A. Yes.

Q. The second sentence says -- well, let me read the first two. It says, "Attached is a copy of a letter that the four companies were going to send to Intel, subject to everyone's approval. This is the point where NEC and Samsung pushed the delay button."

Do you recall whether the delay button was pushed because Samsung was announcing that it was going to start manufacturing RDRAM in production volume?

A. I don't know.

Q. Was there a discussion at Micron that they were going to make a presentation, Micron together with other manufacturers, to Intel, the point of which was going to be that the DRAM manufacturers had agreed to work together to develop a product that would compete with or replace RDRAM?

A. Well, there was a point where we wanted to discuss with Intel that we wanted to work together, and it was all of the major producers of DRAM, with Intel, to work together to develop whatever the technology may be in the future, next generation DRAM technology.

Q. Well, you'll notice the letter, the second page of Exhibit RX-1440, says, "Our companies (Hyundai, Micron, NEC and Samsung) have agreed to participate in the joint development of next-generation (after Rambus) main memory technology."

Do you see that?

A. Yes.

Q. And is that consistent with the proposal that was being discussed at Micron and with you in April of 1999?

A. Yeah, there's a natural assumption there will be something after Rambus, just like there was after EDO and synchronous DRAM and there will be something after DDR and so forth.

Q. Okay, let me ask you about another organization.

Are you familiar with ADT?

A. Yes.

Q. And does that stand for Advanced DRAM Technology?

A. I think so, yeah. It's Advanced DRAM, and the T -- I think it was Technology.

Q. And were you a member of the executive board of that organization?

A. Yes.

Q. And did you attend meetings of that organization from time to time?

A. Yes.

Q. When did you first get involved with that organization?

A. I -- I don't remember the time frame.

Q. And were there other executives -- were there executives from other DRAM manufacturers who also served on that board with you?

A. Yes.

Q. Okay, let me see if I can speed this along a little bit. One more question on that, if I might.

Were you involved in any discussions at Micron as to whether or not to permit AMD to join ADT as a developer?

A. Yes.

Q. And did you express the view that AMD should not be permitted to join as a developer?

A. I did not express that view.

Q. Was that ultimately the way in which Micron voted on that issue?

A. I -- to distinguish, there were developers who were apparently founders of the organization and then there were participants, and of course, AMD was welcome to be a participant in the organization. I -- if I recall correctly, AMD wanted to be a developer, one of the founding developers, and they had come along afterwards, and so I think there was a -- there was a general concern that the -- the more that we widened the developers, the more difficulty we would have in trying to move the technology forward, and as a result, yes, we -- I think -- I don't recall exactly, but in the discussion that I had with our marketing people when they were presenting what AMD wanted, that ultimately we voted that they could be a participant

but not a developer.

Q. Okay. I'll take you to a different subject, if I might.

In 1995, did Micron sign a letter of intent with Samsung?

A. For what purpose?

Q. Well, for several purposes; to cooperate in the future development of technology, reflecting an agreement to negotiate a patent cross-license, and an agreement that Samsung would not locate a DRAM plant in Utah or Idaho.

A. In 1995?

Q. Yes.

A. I remember something about that. I don't remember the details.

Q. Okay. Let me show you, if I might, what's previously been marked as RX-2257.

May I approach, Your Honor?

JUDGE McGUIRE: Go ahead.

BY MR. STONE:

Q. Is RX-2257 a document you signed?

A. Yes, that's my signature again.

Q. Okay. Do you recall the date or the time period in which you signed this?

A. I do not.

Q. Okay. You'll notice in the fourth paragraph, the one that begins with the word "Third," I know that's confusing, but it refers to a press release, April 1995.

Do you see that?

A. Yes.

Q. Does that help you at all in placing the time of -- that you signed this letter of intent?

A. Well, not particularly, but obviously that would give a reference to about the timing of the document.

Q. Do you have any reason to dispute that it was sometime in the 1995 time frame?

A. No.

Q. Okay. Prior to the signing of this letter of intent, Micron and Samsung did not have any patent cross-licenses, did they?

A. We actually -- I believe we did have a patent cross-license, but it's actually the reverse. We never did another cross-license -- or let me think about this for a second. We did have one, then we didn't have one, then we did have one. So, really, I'd have to go look at the dates that all those were in place.

I know that we do not have one today. When that one expired, I absolutely just don't recall when

that might have been. So, in '95, whether it was in effect or not in effect, I just don't recall.

Q. Let me direct you to the second paragraph, the one that begins, "First," where it says, "To remove any future dispute over our respective intellectual property rights, we should enter into a patent cross license agreement."

Do you see that?

A. Sure.

Q. And does that help you in recalling that at this time frame, you didn't have one, but you were going to negotiate one?

A. Ah, well, it doesn't mean we did one. It just means that we had an intent to negotiate for one, and I just don't recall whether we came to agreement in this particular negotiation to have one.

Q. Right, and I was only asking you whether at this time -- it's correct that you did not at this time have one.

A. I just don't --

Q. Do you agree with that?

A. I honestly just don't recall the timing.

Q. Okay. Patent cross-licenses are of value to companies in your industry, aren't they?

A. They can be of value to both parties.

Q. Yes. And that's because often times you might have patents that would prevent some other company from manufacturing a product, and they might have other patents that would impact your ability to manufacture products, correct?

A. That's one of the reasons.

Q. And one of the reasons you have been intent on building the patent portfolio of Micron is because you want to have more patents so that you could negotiate from a position of strength when you negotiate cross-licenses, correct?

A. That is true.

Q. And you also have wanted to build your patent portfolio so that you would have it as a defense against anyone who might think of suing Micron for patent infringement.

A. Yes.

Q. And from time to time, is it not true that you've also used your patent portfolio to collect royalties from other companies?

A. It's been pretty limited, but we have done that.

Q. Okay. In 199 -- earlier today you were asked about the capacity to produce DRAMs in the United States. Do you recall that?

A. Yes.

Q. And today, the only company that has -- that is headquartered in the United States and produces DRAM in the United States is Micron, correct?

A. Yeah. There's four companies that produce DRAM, but there's only one of us that happens to be headquartered here.

Q. Now, some of the other companies produce DRAM in the United States; they're just headquartered elsewhere, right?

A. Yes.

Q. Infineon, for example, has a plant in Virginia.

A. Yes.

Q. And in 1995, was it something that Micron was seeking from Samsung that Samsung would agree not to build a plant in Utah or Idaho?

A. Yeah. I look at this now, and of course, we -- in retrospect, I -- I didn't even remember the discussion at the time until it was raised in the document, but in retrospect, we -- I don't think they would have anyways, but independently of that, that's obviously what we -- we didn't want them to locate there because of the competition for talent.

Q. Okay. And did Micron from time to time also acquire other DRAM manufacturing capacity in the United

States from other companies?

A. There have been two occasions where we've done that.

Q. And was the first one acquiring production capacity from Texas Instruments?

A. It was, but we did not use that production capacity in the United States.

Q. Right. You purchased the production capacity and then shut it down?

A. Actually, we purchased the assets from Texas Instruments, but they had already shut it down by the time we reached the transaction.

Q. And after you had entered into the contract with them but before you closed the deal, they shut it down. Is that right?

A. Well, that was actually part of the agreement, that they would -- they had a partnership in the United States. It wasn't actually just a TI operation. They had a partnership with Hitachi, and so they, in order to consummate the transaction and not have Hitachi have to participate, they bought Hitachi out and then shut that -- when I say shut it down, the facility still remained. We ultimately later sold it, but they quit producing their own DRAM in that facility before we took possession of the assets.

Q. One of the operations that you purchased from Texas Instruments was an operation that was devoted to developing RDRAM, correct?

A. I -- I don't believe that's true.

Q. Weren't they even manufacturing some RDRAM in those plants?

A. I don't -- ah, well, I don't know about the Hitachi plant that they had partnership with, because we didn't -- we weren't any part of that, and I don't know about the facility that they had in Taiwan, because that got excluded from the transaction. Whether they had produced RDRAM at any of the other locations, there were three other locations, and I just don't recall. If it was, I don't think it was much.

Q. Okay. And you don't recall one way or the other as to whether they had a team devoted to developing and designing RDRAMs for high volume production. Is that right?

A. Yeah, I don't recall.

Q. Okay. And the transaction with Texas Instruments also included an agreement that you would have a ten-year royalty-free license under TI's patents, correct?

A. Yes.

Q. And earlier today, you told us that between TI,

AT&T and --

A. Hitachi.

Q. -- Hitachi, you were paying about 10 percent royalties on the DRAMs that you were manufacturing and selling in the mid-nineties, correct?

A. That's not correct.

Q. Okay.

A. Those were just examples of companies that we were paying royalties to.

Q. Fine.

A. There was a list of companies beyond that. I just don't recall all of them that existed at the time.

Q. The only names you recalled earlier were those three.

A. Yes.

Q. Right? Do you recall any more now?

A. Ah, no.

Q. Okay. And do you recall how much you were paying to Texas Instruments alone?

A. In -- in dollar amount?

Q. No, in percentages.

A. Percentage? I don't recall. It varied on a scale. It was lower based on volume and there was a cap and those kinds of things, and I just don't recall.

Q. You told me at your deposition, didn't you --

I'm just trying to jog your recollection, not trying to impeach you -- that in the year preceding the acquisition of Texas Instruments' businesses that we talked about or assets that we talked about, you were paying Texas Instruments about \$30 to \$40 million a year?

A. Sure, it could have easily been.

Q. Let me show you RX-1288, which is a press release relating to the Texas Instruments acquisition.

May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. Directing your attention to what is marked for identification as RX-1288, Mr. Appleton, can you identify that as a Micron press release --

A. Yes.

Q. -- and issued on October 1, 1998?

A. Yes.

Q. And does this accurately describe in general terms the assets and the compensation being paid for those assets?

A. Yes.

Q. And did those assets consist of plants?

A. Yes.

Q. And personnel that moved over to work for

Micron?

A. It was not all of their memory personnel, but it was some reasonable portion of their memory personnel.

Q. And after this acquisition closed, did Micron operate any of those plants that it acquired?

A. Yes, yes.

Q. Which ones did it operate?

A. I need to differentiate between wholly owned and partnership, because there were two types of plants that Texas Instruments had.

Q. Sure.

A. They -- we operated -- they had a wholly owned plant in Italy that we continued to operate. They had a joint venture plant where they were a minority shareholder in Japan that we continued to operate. In fact, we now have 100 percent ownership of that today. They had an operation in Singapore which was really more of an equivalent type joint venture among a few parties where they weren't the minority and they weren't the majority, but they were an equal partner. We continue to operate that today under that same structure, although our ownership's a little bit higher.

Q. And the plant in Japan that you just mentioned,

the partnership there that they had a minority interest in, was the majority partner in that Kobe Steel?

A. Yes.

Q. Okay. With respect to the plants that were in the United States, each of those you just told us was shut down?

A. Well, we didn't shut down any. When we acquired the assets, they had already been shut down and had stopped operating.

Q. Let me withdraw that.

As to the assets you acquired in the United States, you did not operate them, did you?

A. No, we did not.

Q. And after this agreement was signed, Micron no longer paid \$30 or \$40 million a year to TI in royalties, because it got a royalty-free patent license, correct?

A. Well, it's not solely because of that reason. The patent license that we had with Texas Instruments was, in fact, expiring in 1998, and we believed that, of course, our intellectual property had grown in strength, that we wouldn't pay them royalties going forward anyways.

However, part of this agreement, in order to make sure that we had peace for operations that we were

acquiring from them and had the intellectual property that was sitting in it, was that we get a royalty-free cross-license.

Q. Okay. And that royalty-free cross-license is described in this press release as being a ten-year royalty-free cross-license agreement. Do you see that in paragraph three?

A. Yes, it is, and again, not to belabor the point, but the cross-license, to be clear as to what a cross-license means, it's for the life of the patents. So, any of the patents that got developed during that time frame and for the life of those patents we would have a royalty-free cross-license, as opposed to a term ten-year cross-license, which ends as to any of the patents that existed at the end of the term.

Q. So, that means any patents that issued to TI during the ten-year time period, you would have a royalty-free license if it fit within the description of technology.

A. Yes.

Q. And in return for the various assets you purchased, including this royalty-free cross-license, Micron gave stock, correct?

A. We -- no, we gave -- yes, that's true. That is true. There were a couple components of stock. So,

yes.

Q. And you gave them notes that were convertible into stock?

A. Yes.

Q. And you gave them subordinated notes?

A. Yes.

Q. And the value of each of those is outlined in the second paragraph of this press release, and it's correctly summarized there as best you can recall, isn't it?

A. Yes, except they wouldn't describe the value of the convertible notes or the value of what we considered to be convertible, because at a later date -- there will be a description here, but at a later date, we will determine the actual value that they received from those.

Q. Well, if you would look at the last paragraph or the last sentence of the second paragraph, I'm sorry, it says, "The market value of the 6.5 percent convertible and subordinated notes is approximately \$836 million."

Do you see that?

A. I'm sorry, give me a minute to find it here.

Yes.

Q. Okay. And that's what you meant when you said

earlier that the value of those convertible and subordinated notes would be described later, that's --

A. Well, the actual value will occur when they really do the transaction, convert them and sell them, et cetera.

Q. But at the time the transaction was done, for accounting purposes, you have to put your best estimate on the value.

A. That's correct, we have to determine a value at that time for accounting purposes.

Q. Okay. Now, the other acquisition of manufacturing capacity in the United States that Micron did was manufacturing capacity owned by Toshiba?

A. Yes.

Q. And that transaction was done in the end of 2001. Am I correct?

A. It was in 2001. I just don't recall when it got concluded. Yes, it was sometime, though, in 2001.

Q. And what were the assets acquired there?

A. We acquired the assets that they had that were producing DRAM in the Virginia plant.

Q. And was the Virginia plant at that time producing RDRAM?

A. Yes.

Q. And did you cease to produce RDRAM after you

acquired those assets?

A. Toshiba required us to cease producing RDRAM.

Q. Part of the agreement was that you would cease producing RDRAM, correct?

A. Well, Toshiba said that because their technology was developed out of the joint venture development between IBM, Infineon and Toshiba, that we had no rights to it, and as a result, we could not use it.

Q. And they asked you, however, if they could continue to supply RDRAM that they produced in other plants to their customers in the United States, correct?

A. And we signed an agreement to do that, and in fact, did it.

Q. And the agreement provided that you had to approve any of those sales to customers, correct?

A. With respect to RDRAM?

Q. Yes.

A. I don't recall that part of the agreement, but it -- it doesn't mean that we wouldn't try to make sure that we had some rights in terms of where the product flow went.

Q. One of the big customers they had for RDRAM in the United States was Sony, correct?

A. I don't know.

Q. Well, isn't it also true that Texas Instruments wanted Toshiba to continue to supply it with RDRAM and that Micron refused to give that approval?

A. I don't know what you're talking about there.

Q. You don't know? Okay, I'll find the document and come back to it.

Was the largest producer of RDRAM in the United States Toshiba?

A. I really don't know. I --

Q. Okay.

A. If I think about it, they probably were the only producer of RDRAM in the United States.

Q. Okay. And after --

A. Others manufactured it in other locations.

JUDGE McGUIRE: That would make it then the largest.

THE WITNESS: Yeah, I think that would, wouldn't it?

BY MR. STONE:

Q. Let me come back to that, because I lost that document, but let me continue on with a couple other documents.

It was important to you, was it not, to do what you could to learn about the investment in plants and

equipment of your competitors?

A. It's an important factor for their capital spending plans, because it affects supply.

Q. Because in your business, most of the plants operate all year round, 24 hours a day, don't they?

A. Yeah, in the DRAM industry, most operations are 24/7.

Q. So, if somebody is investing in capital equipment and increasing their capacity, that's going to have an effect on how many DRAMs are produced, and that may have an effect on the price.

A. Depending on the demand profile, that could have an effect.

Q. Certainly if the amount being produced goes up, that will have some effect on the price as opposed to the amount being produced being less, although the demand also is part of the equation, right?

A. Well, it depends. The demand could be greater than the supply, and of course, it would then continue to put upward pressure, or the reverse could happen and it would continue to put downward pressure.

Q. Right. And that's something you tried to stay fairly current on, that is, the capital investments of your competitors, because at least an industry average, as we talked about earlier, for the lifetime, the

useful lifetime of that equipment, is about 3.7 years.

A. It is, but when you say "stay current," there is virtually little way to stay current with respect to the accuracy, because what happens is the equipment producers announce when they get a purchase order, and then the equipment may be delivered sometime nine to twelve months after that. So, we really don't have good granularity as to when any equipment is installed.

And not to ramble, but to bear with me a second, then that equipment often takes a number of months to get up into production. So, it's pretty tough. When you say "stay current," it's all relative to the information that you have.

Q. Let me ask it this way: You tried to get information from a variety of sources about the capital spending of your competitors.

A. Actually, with the internet today, I don't try. It just gets sent. Media stuff comes out every day, look at articles. We have a group that filters articles around the world and sends on relevant information.

Q. Well, let me show you a document from 1998, RX-1193.

May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. Do you recognize RX-1193 as an email that you sent to Mr. Sadler in June of 1998?

A. I'm sorry -- oh, an email that I forwarded? Is that the question?

Q. Well, you -- the first part, the very top, is an email you sent which says, "FYI."

A. Yeah, the only thing I sent was the FYI, yes.

Q. You were forwarding an email you had received, correct?

A. Correct.

Q. And the email you received provided you with some information from a Victor de Dios, correct?

A. Yes, de Dios is an industry group that does research in the DRAM industry, and you can subscribe to them like you would other services.

Q. And he provided you, as reflected in this email, with a breakdown of information by company, didn't he?

A. Sure. Well, he does. I'd have to open it up. His reports come often. They still come often today. Sometimes it only talks about the consumption and demand profile and sometimes he includes capital expenditures that companies are doing and so forth.

Q. Okay. Generally he publishes his information

on an industry-wide basis, correct?

A. Yes.

Q. And this was an exception to his publication on an industry-wide basis where he gave you the information broken down by company, correct?

A. It could have been a request we had of him, sure.

Q. But that was not the only source you had for getting information about what your competitors were up to, was it?

A. No, as I mentioned before, there were lots of sources in the media.

Q. All right. And one of the sources of information you had about what your competitors were doing in terms of production and investment in production capacity was a Mr. Sakamoto, correct?

A. Yeah, there -- yes, he could have. I never asked for it, but he could have.

Q. Okay. And Mr. Sakamoto sent you information about what was going on at other companies in terms of production capacity. Am I right?

JUDGE McGUIRE: Mr. Royall?

MR. ROYALL: Your Honor, understanding your ruling earlier today, could I have a standing objection to the relevance of this line of questioning? I'm not

asking that you prohibit, I know you've already ruled, but can I have a standing objection to relevance?

JUDGE McGUIRE: Noted.

MR. ROYALL: Thank you.

BY MR. STONE:

Q. Just as an example of that, let me show you RX-1177.

May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. Mr. Appleton, I'm showing you RX-1177, which is already in evidence -- oh, it's not. Is it really? I'm sorry, Your Honor -- don't put it on the screen, and I --

MR. PERRY: We did not put it on the screen.

MR. STONE: -- I have been just advised this document is in camera.

JUDGE McGUIRE: Oh, yes, don't put it on the screen.

MR. STONE: So, I need to ask if we could at this time clear the courtroom.

JUDGE McGUIRE: Yes, we can. As we're in in camera session, is there anything else that we can take up to avoid and perhaps expedite --

MR. STONE: Yes, because the documents which

follow this -- I thought I needed to go in camera with the next one. I think I have them all together in a set.

JUDGE McGUIRE: Okay, then at this time let me advise the audience that due to a prior court order in this case, the testimony that is about to be offered is confidential, and thus, this portion of the hearing is closed to the public. So, at this time I'll ask all those that are not cleared to have access to this testimony to please clear the courtroom. After this is done, I'll have someone come outside and invite you back in.

Do we have some idea how much time we'll be in in camera session?

MR. STONE: Your Honor, the -- I would guess 20 minutes.

JUDGE McGUIRE: All right, about 20 minutes to the audience.

(The in camera testimony continued in Volume 32, Part 2, Pages 6555 through 6575, then resumed as follows.)

JUDGE McGUIRE: This hearing is now in order, and we're back in public session.

Mr. Stone, you may proceed.

MR. STONE: Thank you, Your Honor.

BY MR. STONE:

Q. Mr. Appleton, you've told us that the first time you became aware that Rambus felt it had any patents that might cover SDRAM or DDR SDRAM was sometime in 2000, correct?

A. Yes.

Q. And your best recollection is no one at Micron ever told you that they had heard from anyone anything to the contrary prior to that time, correct?

A. That is my recollection.

Q. So, no one who attended SyncLink meetings ever told you that at SyncLink -- at a SyncLink meeting, Richard Crisp had said that Rambus had intellectual property that covered SyncLink.

A. Not that I remember.

Q. And wouldn't you have expected a Micron employee to tell you that someone at Rambus felt that they had patent coverage that would apply to SyncLink if the Micron employee heard that?

A. Not particularly. I mean, those kinds of rumors run around the industry a lot.

Q. But if it wasn't a rumor, if Richard Crisp at a meeting said Rambus is going to get intellectual property that's going to cover SyncLink, would you have expected a Micron employee to come back and tell you

that if they heard it?

A. Not necessarily. The company receives notification, you know, I think commonly, and no one comes and tells me about it. It typically goes to the legal department.

Q. Okay. So, it wouldn't surprise you in the least if other people at Micron had been told or had learned that Rambus had a belief that it had or might get patent coverage over SDRAM or DDR and they didn't mention it to you?

A. Well, it would depend on the context, I suppose, but something of that nature, it wouldn't surprise me that they didn't come to me with it.

Q. Okay. So, if Mr. Mooring in 1992 marked up a Micron sales presentation and gave it to a Micron employee and noted on it that Rambus felt it would ultimately get patents that covered DDR, you wouldn't have -- be surprised if a Micron employee did not bring that to your attention?

MR. ROYALL: Your Honor, I would object for lack of foundation. For one thing, I don't think that he's established that the witness has an understanding of who Mr. Mooring is, but I'll also object -- and I have let a couple of these questions go -- in that they call for speculation, and there is no foundation.

JUDGE McGUIRE: Sustained.

BY MR. STONE:

Q. Do you know Mr. Mooring?

A. I do.

Q. Okay. And do you know him to -- at the time that you were negotiating with Rambus to be an officer of Rambus?

A. You mean during the license negotiation?

Q. Yes.

A. Yes.

Q. To be a vice president at that time?

A. Yes.

Q. And did anyone at Micron ever bring to your attention that in 1992, Mr. Mooring marked up a Micron sales presentation and gave it back to a Micron employee?

A. In 1992, I did not deal with that part of the company. Our founder, who was also an attorney by the way, would have naturally been the individual to handle that.

Q. Okay. And did the founder of Micron who was also an attorney ever mention to you when you assumed broader responsibilities at the company that in 1992 someone had brought to his attention that Mr. Mooring had marked up a sales presentation and given it back to

a Micron employee?

A. No.

Q. Did he tell you that in 1992 he had learned that Mr. Mooring felt that some day Rambus would have patent coverage over dual edge clocking?

A. Again, I was responsible for running the operation, and so the answer is no.

Q. But at some point in time you assumed broader responsibilities, correct?

A. When he left the company.

Q. Yes. And did you have any transition period with him? Did he share anything with you?

A. We had a transition period of about three minutes.

Q. So, probably the Rambus patents, if he had any knowledge about them, didn't make it to the critical three-minute conversation, did they?

A. No, they did not.

Q. Before you entered into the license with Rambus in the time period March of 1997, did you ask anyone to look at Rambus' patents?

A. I'm sorry, I was thinking something else.
Repeat the question, please.

Q. Sure.

We looked earlier at the license agreement that

you entered into with Rambus, correct?

A. Yes.

Q. We saw it was signed in March of '97.

A. Yes.

Q. And you told us that negotiations started in December of '96.

A. Yes.

Q. And at any time either prior to December of '96 or during the negotiations, did you ask anyone at Micron, look at the patents so we have some understanding of what it is we're taking a license on?

JUDGE McGUIRE: Mr. Powers?

MR. POWERS: Thank you, Your Honor.

As phrased, that question is clearly broad enough to encompass attorney-client privileged communications, and on that ground I would object.

JUDGE McGUIRE: Sustained.

BY MR. STONE:

Q. Did it come to your attention during the time you were negotiating the agreement with Rambus that Rambus had patents?

A. Yes.

Q. Okay. Did you look at them?

A. No.

Q. Did anybody tell you anything about them? Just

yes or no, not the content.

A. No.

Q. Did you ask anyone, not a lawyer, to look at them?

A. No.

Q. And just so I can preserve my record here, and I don't think it's privileged, but did you ask a lawyer to look at the patents?

MR. POWERS: Same objection, Your Honor.

MR. STONE: Your Honor, a request --

JUDGE McGUIRE: You can ask that question.

MR. STONE: Thank you.

JUDGE McGUIRE: Overruled. He can ask the question.

THE WITNESS: No.

BY MR. STONE:

Q. In November of 1995, a year before you started the negotiations with Rambus, were you aware of an effort among other Micron employees to review Rambus' patents?

A. No.

Q. Let me show you, if I can, Exhibit RX-629.

May I approach, Your Honor?

JUDGE McGUIRE: You may.

BY MR. STONE:

Q. Earlier today we've identified many of the names on RX-629, and I won't go into the ones we haven't. I just want to ask you to look at RX-629 and tell me whether this document in any way refreshes your recollection that employees at Micron in the November 1995 time frame looked at Rambus patents.

A. Well, it indicates that they would have, but I wasn't involved in any of that.

Q. Okay. In either November of 1995 or at any time thereafter, did any of the individuals listed on Exhibit RX-629 bring to your attention the results of any review they might have done?

A. I don't recall anything.

Q. Now, you've told us that Micron was active in SyncLink, correct?

A. Yes.

Q. And let me show you a set of SyncLink minutes, if I might, RX-663.

May I, Your Honor?

JUDGE McGUIRE: Go ahead.

BY MR. STONE:

Q. Mr. Appleton.

Now, I've handed you Exhibit RX-663, which are the SyncLink minutes for a meeting that was held, according to the minutes, on January 11th of 1996.

Do you recall whether you attended this particular meeting of SyncLink?

A. I don't remember attending this meeting.

Q. Okay. Do you recall at all which meeting you attended?

A. I don't, but it wouldn't have been this type of meeting. I've never attended a SyncLink meeting with Kevin Ryan or somebody from Micron. So, I would have recalled if I was there.

Q. You did tell us earlier you thought you attended one SyncLink meeting, am I right?

A. Well, there are two types of meetings. One was kind of the executive level, and the other one was I think more along the lines of where you're going with this.

Q. Stay with me. You did attend one SyncLink meeting.

A. At least one, yes.

Q. And do you recall where it was?

A. I don't.

Q. Do you recall when it was?

A. I don't.

Q. And do you recall anybody else who was in attendance?

A. I don't.

Q. Do you recall if it was in Japan?

A. It could have been. I just don't recall.

Q. Okay. And let me just try one more location and see if I can jog your memory. Do you recall attending a SyncLink executive meeting in Monterey, California?

A. I definitely don't think it was Monterey, California. I don't even recall going to Monterey for a meeting.

Q. You have attended meetings in Japan at which some of your competitors have been present, correct?

A. We have had SIA -- actually, we have had World SIA Council meetings in Japan, which is a derivative of a representation of SIA, and in other countries where these executives would be there, so I've been probably at meetings in most countries where there's at least somebody around from some of the other companies.

Q. Let me direct you -- one more question on that.

The SyncLink meeting that you did attend, can you -- could you say for certain it wasn't in Japan?

A. No, I can't even recall actually, you know, attending a particular meeting in any location.

Q. Turn, if you would, to the second page of exhibit --

JUDGE McGUIRE: I'm sorry, Mr. Stone.

Objection?

MR. ROYALL: Your Honor, there has been no foundation laid that this witness has ever seen this document, that his name's on it or that he attended this meeting.

JUDGE McGUIRE: Wait, what document -- oh, we're talking about this document, all right.

MR. ROYALL: The RX-663. So, I object to what I understand Mr. Stone is about to do, which is to ask questions of the witness about the substance of a document that he's never seen and as to which there's no foundation.

JUDGE McGUIRE: I'll hear your response.

MR. STONE: Yes, Your Honor, two responses.

One, as you will recall, Richard Crisp was on the stand for a long time, many hours of which he was shown documents he had never seen before, notes of Lester Vincent. Our objection to that was overruled.

Now, if the ground rules are as Mr. Royall describes them now, that you can't show a witness a document when they're on the stand if they have never seen it before, as long as that applies to our witnesses going forward, I guess I accept that. I accept the Court's rulings regardless of what they are.

I do think Mr. Royall is advocating a change in

procedure from what Mr. Oliver followed when he did Mr. Crisp, but --

JUDGE McGUIRE: Is that true, Mr. Royall, that on the testimony of Mr. Crisp that, in fact, he was -- he testified on items that he had not seen before?

MR. ROYALL: No, I don't think what Mr. Stone has represented is true. In fact, my understanding -- and this is the very clear representation that was made to me -- is that Your Honor has ruled that as to documents that there is no foundation that the witness has seen, they may be used for two purposes, impeachment and refreshing recollection.

JUDGE McGUIRE: Well, that has been the standard I've tried to employ. Now, there may have been circumstances where that wasn't always the case. I don't recall them, but that's certainly how the Court intends to rule.

MR. STONE: That's fine.

JUDGE McGUIRE: But I will give you the chance, Mr. Stone, to tell me otherwise if there is some, you know, extraordinary circumstance here.

MR. STONE: There is nothing extraordinary about this, and I would like the opportunity to raise -- to lay a foundation for these documents.

JUDGE McGUIRE: All right, then I'll give you

that opportunity to at least lay the foundation, and then I'll entertain your objection.

BY MR. STONE:

Q. Mr. Appleton, in your position as a member of the SyncLink executive group that you've described, were you sent SyncLink Consortium minutes?

A. No.

Q. Were you reported to on SyncLink meetings by anyone who attended on behalf of Micron?

A. I don't recall that.

Q. Do you recall ever getting a report on what happened at a SyncLink meeting?

A. I could have. I just don't recall it.

Q. How much money did Micron invest in the SyncLink enterprise?

A. I don't know. I'd have to go look at the data.

Q. Micron announced -- we saw the ad earlier today, Micron announced they were producing SLDRAM, correct?

A. We announced available samples of SLDRAM, yes.

Q. The ad announced samples or the ad announced product?

A. The ad announced I believe -- which we can look at -- availability.

Q. And doesn't availability mean product you could

purchase?

A. Well, there's an interpretation there between the sampling and the production. It's obvious that nobody bought any commercialized volumes of SyncLink, because we didn't do that.

Q. I'm not going to quibble over this point. To get to the point where you had samples available, you had to do a design.

A. Yes.

Q. And you had to go into limited production.

A. No.

Q. You had to produce it somehow.

A. We had to produce at least some wafers in order to have devices to send to customers.

Q. So, the engineers who did the design had to be employed to do it.

A. Yes.

Q. And the product had to be tested?

A. Yes.

Q. Okay. And so -- and quite a bit of money was spent by Micron on the design of SLD RAM, correct?

A. Yes.

Q. Okay. Did you receive any types of reports from anyone about the progress of the SyncLink project?

A. Well, not reports in this sense. I --

Q. No, no, no, set aside -- I'm sorry, I didn't mean to interrupt you, but just set aside RX-663 for the moment.

A. I don't recall any. I very well could have in that time frame. Somebody like a Terry Lee or a Jeff Mailloux could have come and said, hey, here's what happened at the SyncLink meeting.

Q. Okay. Did anyone tell you that at a SyncLink meeting it was discussed that Rambus had 16 patents already and that they thought they might cover the SyncLink approach?

A. I don't remember anything like that.

Q. Was it Micron's view in January of 1996, a year before or 11 months before it entered into the license agreement with Rambus, that Micron was particularly concerned about Rambus' patents?

A. I'm sorry, repeat that question.

Q. Certainly.

In January of 1996, was Micron particularly concerned that the SyncLink design avoid the Rambus patents?

A. Not to my knowledge.

Q. Did you ever speak with either Mr. Ryan or Mr. Walther about what was going on at SyncLink?

A. I did not.

Q. Okay. In April of 1997, just after you had signed the RDRAM license agreement, did anyone at Micron tell you that they had learned from Intel that Rambus felt it had patent coverage for DDR?

A. Nobody told me that.

Q. Okay. And did you in the 1997 time frame talk from time to time with Terry Lee?

A. When you say "from time to time," I -- I could have run into Terry Lee in the hallway or something like that, but I didn't have regular meetings with Terry Lee. He didn't report to me, and I don't think he reported to the person that reported to the person that reported to me, so I don't recall anything, but I easily could have run across Terry and had some kind of conversation.

Q. And do you know whether anybody at Micron, after April of 1997 up until 2000 when you learned about the litigation, made any effort to look at, analyze, review Rambus patents?

A. I don't know.

Q. And you're confident, aren't you, that no one told you anything about a review of Rambus patents prior to 2000, nobody at Micron.

MR. ROYALL: Your Honor, I believe this is asked and answered. We've been over this a couple

times.

MR. STONE: I'll withdraw it. I'll withdraw it.

JUDGE McGUIRE: All right.

BY MR. STONE:

Q. Let me show you, if I can, RX-829.

May I approach, Your Honor?

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. Let's see if we can lay a little foundation here, Mr. Appleton.

A. Yes.

Q. Are you the person to whom this email was sent?

A. Yes.

Q. Okay. And it was sent on December 10th of 1996, correct?

A. Yes.

Q. And it was sent to you in anticipation of your negotiations with Rambus over an RDRAM license agreement, correct?

A. Yes.

Q. And you've seen this document before, haven't you?

A. I have.

Q. Okay.

JUDGE MCGUIRE: Now, that's a foundation.

MR. STONE: I'm trying. I'm learning. I'm learning.

BY MR. STONE:

Q. Let me direct your attention to the second page of this document. We looked at this at your deposition, correct?

A. Yes.

Q. And isn't it true that you were told in December of 1996 that Micron had been investigating high-speed DRAMs and the intellectual property associated with them for some time now?

A. Sure.

Q. And in -- and did you inquire when you were told that, well, what did you find out about the Rambus intellectual property on high-speed DRAMs?

A. No, I didn't.

Q. And you'll note that it says in this same paragraph, "From our research, we think many Rambus patents read on prior art or other patents."

Do you see that?

A. Yes.

Q. So, in December of '96, you were told something about Rambus patents, weren't you?

A. But I didn't know what context they were

talking about here. I already -- it said that Rambus had had patents. We knew that as a part of the negotiation for the RDRAM license.

Q. You were told in December of 1996 that someone at Micron thought that the Rambus patents read on prior art, weren't you?

A. Yes, but I don't know, prior art of what?

Q. You don't know what prior art means?

A. No, I know what prior art means, but my interpretation is with respect to the RDRAM itself.

Q. Do you know that prior art is one of the things that will potentially invalidate a patent?

A. Yes, I do.

Q. Okay. And when you were told in December of '96 that the Rambus patents read on prior art or other patents, did you understand that you were being told that the Rambus patents might not be valid?

A. Yeah, that would have been my interpretation at this time.

Q. Okay. So, in December of 1996, you were told by Mr. Mailloux that based upon an analysis that had been done at Micron, Micron thought the Rambus patents might not be valid, correct?

A. According to this, that's what he said.

Q. And you never, after being told that, you never

until 2000, when you first heard about the litigation, did anything further to investigate one way or the other the Rambus patents.

A. No, I didn't.

Q. Correct?

A. No, I didn't.

MR. STONE: I have no further questions, Your Honor. Thank you.

JUDGE McGUIRE: Okay, thank you, Mr. Stone.

MR. STONE: I do need to move in RX-1288, which was one of the press releases we looked at.

JUDGE McGUIRE: Objection?

MR. ROYALL: No, Your Honor.

JUDGE McGUIRE: Entered.

(RX Exhibit Number 1288 was admitted into evidence.)

MR. STONE: Thank you.

JUDGE McGUIRE: Mr. Royall, any questions on redirect?

MR. ROYALL: Very limited, Your Honor.

JUDGE McGUIRE: Good.

MR. ROYALL: Actually, the only questions I have relate to this last document.

JUDGE McGUIRE: Okay.

REDIRECT EXAMINATION

BY MR. ROYALL:

Q. Do you have that in front of you, Mr. Appleton, RX-829?

A. Yes.

Q. And this is an email that you were sent -- that was sent to you by Jeff Mailloux in December of 1996. Is that right?

A. Yes.

Q. Now, in the first paragraph -- actually, I think it's the second paragraph of the email, the first page of RX-829, do you see the -- the sentence beginning with the word "Also"? "Also makes us"?

A. The second paragraph or the second section of the first -- the paragraph number one?

Q. Actually, let me --

A. Oh, you're up above that.

Q. Let me come back to that. Let me ask you another question.

A. I see it now, by the way.

Q. Do you recall -- if not, I could pull it out --

but -- actually, could you pull up RX-828? You should have it in front of you. This is the December 10 letter to you from Geoff Tate that we talked about earlier today.

A. I think it's at the bottom of the pile here

somewhere.

Q. I assume it's on the bottom of the stack.

A. Here it is.

Q. So, RX-828 is the December 10, 1996 letter that we talked about earlier that Mr. Tate sent to you seeking to interest you in taking a license to direct RDRAM.

A. Yes.

Q. Okay. Now, the email that Mr. Stone just showed you is dated the same date, is it not?

A. Yes.

Q. Okay, December 10, 1996. And did you understand that this email was an email that Mr. Mailloux was sending to you relating to Rambus' proposal that Micron take a license to direct RDRAM?

A. Yes.

Q. Now, in the second paragraph of Mr. Mailloux's December 10 email to you, RX-829, do you see where he says -- in the middle of that paragraph, he refers to "kill SyncLink"?

A. Yes.

Q. Do you see that?

A. Yes.

Q. What do you understand that to refer to?

A. Stop working on it whatsoever and make sure it

doesn't come to the market as a product.

Q. And did you understand that that's what Rambus was asking you to do in order to obtain preferential license terms on RDRAM?

A. Yes, that's what they wanted.

Q. They wanted to kill SyncLink?

A. Yes.

Q. Okay. Now, on the second page of RX-829, Mr. Stone asked you about some reference to Rambus patents. Do you recall that?

A. Yes.

Q. Now, do you see anything in this email that indicates that internally within Micron there was any understanding that Rambus at this time possessed or believed that it could obtain patent rights extending to either SDRAM or DDR SDRAM?

A. No, none whatsoever.

Q. Has anyone --

MR. STONE: Your Honor --

BY MR. ROYALL:

Q. -- ever communicated to --

JUDGE McGUIRE: Just a second, Mr. Royall.

MR. STONE: The question as framed says was there any understanding anywhere within Micron, and I don't think this witness has foundation. It says do

you see anything in this email that indicates that internally within Micron there was any understanding. Now, all he's doing is reading the text of the email. I think we can all read that ourselves. If he's asking the witness for anything beyond how he reads the email, I think it lacks foundation.

JUDGE McGUIRE: Mr. Royall, any response?

MR. ROYALL: Your Honor, I think the question quite literally asked, as Mr. Stone has just acknowledged, whether there's anything in the email. I see no basis for the objection.

JUDGE McGUIRE: Well, in the email or internally within Micron?

MR. ROYALL: The question was whether he saw anything in the email that suggests --

JUDGE McGUIRE: If he saw --

MR. ROYALL: -- that people within Micron had that view.

JUDGE McGUIRE: Then if that's the question, the objection is overruled.

BY MR. ROYALL:

Q. Now, putting aside this email, Mr. Appleton, did anyone within Micron ever tell you -- prior to the time that you learned about Rambus asserting patent rights over DDR and over SDRAM, did anybody ever tell

you that Rambus possessed or that it might possess patent rights extending to those devices?

A. No.

Q. And Rambus itself, in the meetings that you had with Rambus in which you negotiated the direct RDRAM license, it never told you that either, did it?

A. They also never told me.

MR. ROYALL: Thank you, no further questions.

JUDGE McGUIRE: Mr. Stone, recross?

MR. STONE: Yes, Your Honor.

RECROSS EXAMINATION

BY MR.

STONE:

Q. Do you still have that letter in front of you, RX-828?

A. I do.

Q. Could we bring that up?

If we could go to the paragraph that begins, "But if Micron."

A. Yes.

Q. And earlier today I asked you if you had an understanding of what the high bandwidth DRAMs following the EDO and 100-megahertz SDRAMs were that were referred to in this letter. Do you recall that?

A. Yes.

Q. And we talked about 600 megahertz and what's

high bandwidth mean and all that.

After looking at Exhibit RX-829, where you saw the reference to "kill SyncLink," is it now your understanding that what Rambus wanted was to offer you an alternative, that if you would go exclusively with RDRAM and not support SyncLink, they would give you a better royalty?

A. I didn't interpret it specifically with respect to SyncLink. That was certainly one of the efforts that I interpreted they wanted us to not work on, but the way that I interpreted the letter that was sent to me, Exhibit 828, was that we would not work on any alternatives moving forward, except Rambus, for higher speed bandwidth devices.

Q. And did you understand when you received the letter from Mr. Tate, RX-828, that one of the high bandwidth alternatives that they offered you the opportunity to drop work on in return for a better royalty was SyncLink?

A. Yes.

Q. And so when you got the note from Mr. Mailloux about the "kill SyncLink," was it your understanding then that he was referring to the offer to be exclusive RDRAM, not support SyncLink or other alternatives, in return for a better royalty?

A. Yes.

Q. Mr. Royall asked you whether in that document you saw any reference to any Rambus patent coverage on products other than RDRAM. Do you recall that?

A. Yes.

Q. And I guess in your role as the president, CEO and chairman of Micron, you're qualified to interpret what a document means to people within Micron, correct?

A. It depends on the document.

Q. Well, pick up RX-663, which you said you hadn't seen before.

MR. ROYALL: I will note for the record, Your Honor, this is the document that Mr. Stone has failed, despite considerable effort, to lay a foundation for.

MR. STONE: And I am not trying to lay a foundation that he's seen it before. I'm going to approach this just the way Mr. Royall approached the last question.

BY MR. STONE:

Q. Do you see in this document --

JUDGE McGUIRE: Mr. Royall, if -- I'm sorry, Mr. Stone, if he hasn't seen the document, you can't ask him about it at this point.

MR. STONE: Your Honor, if he's entitled to look at a document and say do you see anything in here

that says it -- that was the question. He wasn't asked what did it mean to you when you got it at the time. He was asked by Mr. Royall, do you see anything in this document that says that anyone at Micron had knowledge. Now, that's trying to create an impression.

JUDGE McGUIRE: Now, that seems to be what, in fact, was your question, Mr. Royall. Are you now saying that that was not the question?

MR. ROYALL: No, excuse me, Your Honor --

JUDGE McGUIRE: That might be a little far afield here of where we're --

MR. ROYALL: The issue here is not the nature of the question. The issue here is foundation, and as you noted, Your Honor, Mr. Stone did lay a foundation about the document I asked about. He noted that Mr. Appleton was the sole recipient of that document, and it was that foundation that was laid that I asked my question.

The difference here is that the document he now wants to ask about is a document as to which there is no foundation, despite some several minutes of effort, without success, to lay a foundation. That is the distinction. It's not the question but the lack of foundation.

MR. STONE: Your Honor, may I be heard?

JUDGE McGUIRE: Yes.

MR. STONE: The question is, does this witness have a basis to say whether a document does or does not have certain information in it. That was the question Mr. Royall asked. That's not a question that depends upon having seen it before. He didn't ask him whether when you saw it before, did you think this, when you saw it before, did you conclude that? He asked him, read this document and tell me whether the information is in it.

A Micron business document, circulated within Micron, is a document that I should be entitled, based on that, to ask him whether, in fact, there are Micron documents which show that Micron employees had knowledge and an understanding of Rambus' patent coverage as to SyncLink.

MR. ROYALL: Can I speak, Your Honor?

My objection is not to his question. It's to the lack of foundation. He acknowledges he has not laid a foundation relating to this document, and that's the nature of the objection.

JUDGE McGUIRE: All right, sustained. You may lay a foundation, Mr. Stone.

MR. STONE: Okay.

BY MR. STONE:

Q. Could you look at documents, Mr. Appleton, and tell whether or not they reflect an understanding of other people at Micron as to knowledge about Rambus' patents?

A. Not necessarily.

Q. And in some cases yes? If a document -- you picked it up, you looked at it, you say I understand that Rambus has patents that they think cover SyncLink, would you be able to understand that to mean that somebody at Micron was aware of that?

MR. ROYALL: Your Honor, I object to that question now as lacking foundation and calling for speculation.

JUDGE McGUIRE: Sustained.

BY MR. STONE:

Q. Do you know, Mr. Appleton, that there are not documents in Micron's files that reveal that Micron employees were well aware that Rambus believed it had or would get patents that covered SyncLink?

A. I do not know that.

Q. Okay. Do you know whether or not there are documents in Micron's files that would reveal that Micron employees knew that Rambus believed that it would get patents that would cover DDR?

A. I don't know that.

Q. Have you ever asked to see the analysis, if any was done, by Micron of the Rambus patents in November of 1995?

A. I've never asked to see the analysis.

MR. ROYALL: Your Honor, I object. It assumes facts not in evidence and lacks foundation.

JUDGE McGUIRE: I'm going to let him answer that question.

BY MR. STONE:

Q. And your answer was?

A. I've never seen that analysis.

Q. Have you ever asked anyone to gather together the documents from Micron's files that would reveal the full extent of Micron's knowledge of Rambus' patents and the scope of those patents?

A. No, I haven't done that.

MR. STONE: Thank you. No further questions, Your Honor.

JUDGE McGUIRE: All right, very well.

MR. ROYALL: I have nothing further, Your Honor.

JUDGE McGUIRE: All right, Mr. Appleton, I want to thank you for your testimony here today. You are excused from this proceeding.

Counsel, it's been a long day. I appreciate

everyone's patience. We will convene back in court at 9:30 a.m. on Monday. Have a good weekend.

(Whereupon, at 6:25 p.m., the hearing was adjourned.)

C E R T I F I C A T I O N O F R E P O R T E R

DOCKET NUMBER: 9302
CASE TITLE: RAMBUS, INC.
DATE: JUNE 20, 2003

I HEREBY CERTIFY that the transcript contained herein is a full and accurate transcript of the notes taken by me at the hearing on the above cause before the FEDERAL TRADE COMMISSION to the best of my knowledge and belief.

DATED: 6/21/03

SUSANNE BERGLING, RMR

C E R T I F I C A T I O N O F P R O O F R E A D E R

I HEREBY CERTIFY that I proofread the transcript for accuracy in spelling, hyphenation, punctuation and format.

DIANE QUADE