FEDERAL TRADE COMMISSION

I N D E X (PUBLIC RECORD)

UNITED STATES OF AMERICA

FEDERAL TRADE COMMISSION

In the Matter of:	)
Rambus, Inc.	) Docket No. 9302
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TUESDAY, JULY 15, 2003

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TRIAL VOLUME 42

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: Paula G. Satkin, RPR

For The Record, Inc.

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P R O C E E D I N G S

JUDGE McGUIRE: This hearing is now in order. Before we start today, any items that we need to pick up, Mr. Weber?

MR. WEBER: Yes, Your Honor. I forgot to introduce the document I introduced with Dr. Horowitz, CX 1322.

JUDGE McGUIRE: All right. Entered.

(CX Exhibit 1322 was admitted into evidence.)

MR. STONE: I have a similar issue to raise during the Chin deposition, three exhibits. They are RX 1299, RX 1188, and RX 2090.

MR. OLIVER: No objection, Your Honor.

JUDGE McGUIRE: Okay. At this time, those are all in.

(RX Exhibit 1299, RX Exhibit 1188, and RX Exhibit 2090 were admitted into evidence.)

MR. STONE: One other housekeeping matter I might raise after we had a chance to review the matter. Page limits on the briefs.

JUDGE McGUIRE: That was an idea that I had and I have given that some thought myself and I would certainly be happy to confer with the parties on that issue.

MR. STONE: I've conferred with Complaint

Counsel. I suggested initially, maybe we would do 75 pages on the opening and 50 on the reply. They felt that might be a bit short, so I've now suggested and I think they're thinking about 100 on the opening and 75 on the reply. The findings, I think, are going to be unlimited in pages because the findings are whatever they are, but it seems to me --

JUDGE McGUIRE: I think that's a good idea. That was something I've already considered. I didn't put it in the Order because what I actually contemplated at some point before now and the close of this hearing, that we talk about what's contained in that order and then, as I said, we'll entertain any comments anyone may have as to what we want to do and, obviously we're all involved in this, so I want to get your input, as well.

Do you have any comment to that proposal, Mr. Oliver?

MR. OLIVER: Your Honor, the one concern that we had in particular is that we thought it would be very helpful for you, frankly, if in our post trial brief we were able to actually quote from testimony and quote from documents, and our concern with the page limit was in order to make our arguments, that may leave us simply citing a string of CX numbers and

forcing you to go rummaging through documents.

JUDGE McGUIRE: That is a problem and I don't intend to do that. It is not my job -- I will be doing that once I know what the testimony is, but I don't have the time nor the interest in going back and confirming citations without even knowing what the quote is.

Once the quote is made, I'll go back and confirm that that is, in fact, the evidence that's been stated, but I understand the point he's making and I agree with it.

Now, in that context, if we still determine that we should put some sort of a page limit on it where it doesn't go on four or 500 pages, I'm more attuned to that, but I do want it clear that when you make a citation to the evidence, that you indicate what that point is that you're trying to argue and to cite to. I can't possibly go back and check every citation when I don't know what the evidence is I'm cited to.

MR. STONE: I agree with that too, Your Honor. I didn't mean to suggest limits that would prevent someone from citing you to the evidence.

JUDGE McGUIRE: What I want from the parties is your best effort, your best argument and the best approach that's going to apprise me of the evidence in

this case that supports the arguments that you intend to make.

Now, maybe there's a compromise somewhere in there where we can accomplish each end, but, no, I just don't want to see something that says CX 218 without knowing what is in CX 218.

MR. STONE: Right.

JUDGE McGUIRE: We'll take this up again maybe in the meantime the two sides can confer on it and see if you can't reach some sort of accommodation.

MR. STONE: Thank you.

JUDGE McGUIRE: Okay. At this time, the respondent may call its next witness.

MR. STONE: Thank you, Your Honor. At this time, we would call Martin Fliesler.

JUDGE McGUIRE: Okay. Sir, would you please approach the bench and you'll be sworn in by the court reporter.

Whereupon--

MARTIN FLIESLER

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

JUDGE McGUIRE: All right. Sir, have a seat right there if you would.

DIRECT EXAMINATION

A. All the ones they gave on intellectual property.

Q. Did there come a time when you first became fully employed or employed full-time?

A. Yes.

Q. When was that?

A. That was just when I graduated law school in June of 1968.

Q. What was your first job?

A. I became a patent examiner in the Patent and Trademark Office.

Q. How long did you work there?

area that I was directly responsible for and earth station technology, actually how you -- from the earth station point of view, how you transmit and receive the signals.

Q. Okay. And after the three years at COMSAT, what was your next employment?

A. I became an associate in the intellectual property specialty firm of Stevens, Davis, Miller and Moser, which was located here in Washington, D.C. area.

Q. How long were you there?

A. Approximately four years.

Q. And in the general sense, what were your job responsibilities in that position?

A. Well, I was in the electrical group there at Stevens Davis and primarily was in patent preparation and patent prosecution area around electrical inventions and working intimately with matters that were going on in the Patent and Trademark Office.

Q. And about when was it, what year when you left Stevens Davis?

A. It was the summer of 1976.

Q. And what did you do at that point?

A. I came to San Francisco and started work as a senior associate in another specialty intellectual

I'm sorry, called Phillips, Moore, Lampio, Weissenberger & Strabala.

Q. How long were you there?

A. Approximately six years.

Q. And did you become a partner in that firm?

A. Yes, after a few years as senior associate I became a partner.

Q. And what were the kinds of work that you did there?

A. That was continuing in the patent -- primarily in the intellectual property point of view, primarily in the patent prosecution, patent preparation area. Also, from a technology point of view, in electronic and software arts that was starting to develop in the Silicon Valley and also some litigation support for some of the senior partners at that time.

Q. At that time, did you take any sort of training or courses to work in the new areas of the art that you were involved in?

A. Yes. One of the technical courses that I took was a four or five day intensive semiconductor chip design course designed for engineers. It was run by a company called Integrated Circuit Engineering, ICE. That was one of the courses to get familiar with chip technology, architect, all levels to mass work level.

Q. After you left Phillips Moore, what did you do?
A. Started our firm.
Q. How many of you started that firm?
A. Myself and three other partners.
Q. How large is the firm today?
A. Approximately twenty attorneys.
Q. When was that founded, what year?
A. May 1, 1982.
Q. And what types of work have you done since founding your own firm?
A. Again, we are a specialty intellectual property law firm focused, from a technology point of view, on

Q. Just in general sense, what has been your background in that particular area of the art?

A. It's been both from the prosecution point of view and litigation point of view. Primarily for one particular client that comes to mind, is advanced micro devices, AMD, which at one time had a memory group and the memory group did works in DRAMs, SRAMs, other kinds of memory which we called E squared properly, double E properly memories all surrounding circuitry to support those memories and so there was patent prosecution work around those technologies. Not only what I did, but also at that time, as we were hiring associates, overseeing associates in those areas and then from a litigation point of view, again, particularly with AMD, we tried a case for them for -- they were sued by a company called Brooktree, down in San Diego.

Brooktree had some patents around SRAMS so we tried that case then AMD did get into another type of memory called flash memory, which has become very, very successful as a technology and so I was developing flash memory matters for AMD and we did wind up suing a company called Alliance Semiconductor on two of AMD fundamental flash memory patents.

Alliance Semiconductor was a DRAM company, at the time, getting into the flash memory business and

part of that litigation involved understanding Alliance Semiconductor's business around DRAMs and why they were getting into flash.

Q. Okay. Let me ask you, if I can, about things somewhat outside our practice. Have you been involved in a professional capacity in assisting the courts, in any way, in assisting with patent issues and patent law?

A. Yes.

Q. Could you briefly describe that for us?

A. Primarily in the Northern District of California, which takes into account San Francisco, San Jose and Oakland. The Northern District wanted to put together an updated, revised series of model patent jury instructions in light of the fact that that district was receiving a lot of patent litigation and fundamentally Chief Judge Patel of the Northern District asked me to be the chairman of what we call the working committee, that included a number of other attorneys, professors and Judge White to prepare a new jury -- patent jury instructions that would basically do two things: Take into account the new developing law from a substantive point of view and present them in a way -- try to present them in a way to a jury in plain English. That was a real challenge of presenting

them in plain English, and we worked and prepared and put together a whole set of model patent jury instructions which the Northern District uses now it's on their web site and literally as we speak.

Right now I'm in the process, right before I came here and when I get back, Judge White has put the working committee together again to update the model patent jury instructions.

Q. Have you been involved in any other court appointed responsibilities beyond the one you've just described?

A. Yes.

Q. What's that?

A. The Northern District had a need for some new magistrate judges and the San Jose Division needed a magistrate judge and the San Francisco division needed a magistrate judge and there were federal procedures for pulling together a magistrate merit selection panel under the federal rules and guidelines. And Judge Patel asked me to be a member of the committee that was working on the applications and advisement to the court for the San Jose division of a new magistrate, and I did that as a member of that committee and then I chaired the similar committee for the San Francisco division in recommending -- evaluating and recommending

candidates for the position of magistrate judge up in San Francisco.

Q. Let me just take you back to, specifically, patent law issues for a moment. And I don't really want to ask you about all your different activities related to patent law outside of your practice, but if you wouldn't mind, can I ask you about involvement that you've had with the inns of court in the northern districts?

A. We called it the Intellectual Property Inns of Court, which is based on the American version of Inns of Court, which is a membership of approximately 100 attorneys throughout the Bay Area involved in intellectual property litigation.

I was one of the original members of the court, Inns of Court, which was formed about 1992, '93. Ultimately, became a vice president for two years and then a president for two years of that court and fundamentally the -- with judges present, they were members. As well, we would have eight meetings a year and put on programs related to intellectual property.

Q. Have you ever been retained as an expert witness before?

A. Yes.

Q. How many occasions?

A. Twice.

Q. Okay. And in one of the occasions, were you retained by the Federal Trade Commission?

A. Yes.

Q. What case was that?

A. That was the Schering-Plough case, Schering-Plough. I believe the defendant or the other party in the Schering-Plough case -- the FTC versus Schering-Plough.

Q. And did you prepare an expert report in that particular matter?

A. Yes.

Q. And did you give a deposition?

A. Yes.

Q. Did you testify at any hearing in that matter?

A. No.

Q. Is this your first hearing to testify at?

A. Yes.

Q. Is testifying as an expert witness a significant portion of what you do in the day-to-day of your practice or a small percentage or some other percentage?

A. It's -- it's minuscule.

MR. STONE: Your Honor, at this time, we tend that Mr. Fliesler is an expert in patent law and patent

prosecution.

JUDGE McGUIRE: Any objection?

MS. MICHEL: No objection, Your Honor.

JUDGE McGUIRE: He shall be qualified in the areas noted.

MR. STONE: Thank you, Your Honor.

BY MR. STONE:

Q. Mr. Fliesler, when were you retained in connection with this particular matter?

A. I believe it was around October 2002.

Q. After you were retained, have you reviewed materials that relate to this case?

A. Yes.

Q. Could you briefly summarize for us what you've reviewed?

A. Well, there are -- certainly the basic 898 patent application and PCT application and a number of patents that have issued, Rambus patents that have issued from that. Their corresponding prosecution histories. Various JEDEC standards, materials and meetings and meeting notes. The -- I read the reports of Professor Jacobs and Mr. Nussbaum, expert reports of professor Jacobs and Mr. Nussbaum. I certainly read the opinion that came down from the Federal Circuit in the Rambus case and the FTC complaint, the reply, those

kind of things.

Q. Okay. Did we, together, prepare sort of a summary of your opinions that you expect to present today?

A. Yes.

MR. STONE: Your Honor, I have a set of demonstratives. If I can hand them up to the court, I've given plaintiff's counsel a set. The witness has a set, I have one for you. We can take them back when we're done. I took the gamble of premarking them with numbers.

JUDGE McGUIRE: Okay.

MR. STONE: If we could bring up the first one which I marked as DX 262.

(DX Exhibit 262 was marked for identification.)

BY MR. STONE:

Q. Does this particular demonstrative, DX 262, is this a copy of the summary of opinions we prepared together?

A. Yes.

Q. Would you tell us first, I note there are five paragraphs on this, I would like to ask you just briefly to tell the court which each of your five opinions is and let's start with the first one, if you would?

MS. MICHEL: Your Honor, I object as Mr. Fliesler summarizes his first opinion. It is asking him to give the viewpoint of a knowledgeable engineer. He has been qualified as an expert in patent

A. Yes.

Q. And when you prepare opinions on validity of patents? Does the perspective of a person of ordinary skill in the art figure in your opinions?

A. Yes.

Q. How does it figure into your opinions?

A. Well, the law requires it, first of all. The law requires that, but more significantly in my particular specialty, putting on my patent lawyer's hat, my experience is from a technology point of view, is in-depth with engineers in all areas, lots of areas of chip technology and other areas of software.

Almost everything you can imagine that's been coming out of Silicon Valley, so I've had intimate direct contact with lots of engineers across lots of disciplines, technology disciplines, including the memory matters that I mentioned and I work with them on a day-to-day basis.

Q. In connection with your work in this case, have you determined what level of background and experience a person of ordinary skill in the art involved in this case would have?

A. Yes.

Q. And what is that?

A. It would be somebody with -- in my view, an

electrical engineering degree, at least two, three years of experience, actual practical experience in designing DRAMs and memory and circuitry that supports the memory and circuitry that interfaces with the memory.

Q. And do you feel that you have enough knowledge of what someone with that level of training and experience would know to express opinions as to what a person of ordinary skill in that art would understand?

A. Yes.

Q. And is that based upon your training as a lawyer and a patent examiner and your own experience?

A. Yes.

Q. Have you worked with people who have a level of training and experience that you've described as someone of ordinary skill in this art?

A. Yes.

MR. STONE: Your Honor, at this time, I would like to offer his opinions of what a person of ordinary skill in the art would know with respect to the particular art at issue here.

JUDGE McGUIRE: Okay.

MS. MICHEL: Continue to object, Your Honor. I would like to voir dire the witness on this issue.

JUDGE McGUIRE: I'm going to overrule the

objection. I think it goes more to weight and you can take that up in cross examination.

MS. MICHEL: Thank you.

BY MR. STONE:

Q. Mr. Fliesler, let me ask you now about the first opinion, if we can, DX 262. Could you tell us?

JUDGE McGUIRE: I'm sorry. You know what, I have trouble hearing you and I didn't really hear your request to voir dire the witness. So if you want that opportunity now, you can have it.

MS. MICHEL: Thank you, Your Honor.

JUDGE McGUIRE: I have trouble hearing you. You had indicated that you opposed the testimony, but I didn't realize you wanted to conduct any voir dire, so you may have that opportunity.

MS. MICHEL: I apologize, Your Honor. I'll speak up.

JUDGE McGUIRE: Okay.

VOIR DIRE EXAMINATION

BY MS. MICHEL:

Q. Mr. Fliesler, you do not consider yourself a person of ordinary skill in the art; do you?

A. No.

Q. You received your bachelor's degree in 1965?

A. Yes.

Q. And you went straight to law school from there?
A. Yes.
Q. You've never worked as an engineer?
A. No.
Q. The first time you did any work that you could recall related to DRAMs was in about 1982?
A. No, it was earlier. In connection with taking

patent disclosure, patent specification with any technical person; is that right?

A. Discuss --

Q. Let me rephrase the question.

A. I read professor Jacobs' material.

Q. But you did not discuss your understanding of what the patent discloses with any technical expert; is that right?

A. That's correct.

MS. MICHEL: Your Honor, we continue to object to Mr. Fliesler offering an opinion from the point of view of a knowledgeable engineer in the DRAM industry, given his limited experience with DRAMs and given the fact that Rambus is intending to call a technical expert on these matters, Dr. Soderman.

JUDGE McGUIRE: Mr. Stone, I'll give you a chance to respond.

MR. STONE: Thank you, Your Honor.

The opinions we tend to elicit from Mr. Fliesler is one of ordinary skill in the art. That's one the patent lawyers have to understand, it goes to the opinions they render. I think we asked him to express the opinion as he would in connection with making a decision on validity or expressing opinion.

JUDGE McGUIRE: He can do so on the issue you

just stated, regarding ordinary skill in the art, but he will not be qualified as an expert to testify regarding what a knowledgeable engineer would understand or should understand. So are we clear on that distinction?

MR. STONE: Yes, Your Honor.

MS. MICHEL: Yes, Your Honor.

JUDGE McGUIRE: To that extent I'll uphold the objection. Go ahead.

BY MR. STONE:

Q. Mr. Fliesler, let me direct you to paragraph 1 of DX 262. Would the opinion we stated there, if we took out the words a knowledgeable engineer and replaced it with a person of ordinary skill in the art, referring to the art in this case with respect to DRAMs, would your opinion be as it is expressed there?

MS. MICHEL: Your Honor, I object to the way the question is phrased. Because Mr. Fliesler is not a person of ordinary skill in the art, I understand your ruling he could not give the viewpoint of a person of ordinary skill, but of an attorney.

MR. STONE: Let me see if I can rephrase.

JUDGE McGUIRE: Go ahead.

BY MR. STONE:

Q. Mr. Fliesler, in your opinion, would a person

of ordinary skill in the art, reviewing the '898 application, have realized that Rambus might have claims broad enough to cover programmable CAS latency, programmable burst length, dual-edge clocking, and on-chip DLL?

A. Yes.

Q. If we could modify and keep in mind your first paragraph to be as I just framed it, I would appreciate it.

If you would describe for us just briefly and generally what your second opinion is?

A. From a patent lawyer's point of view, a patent lawyer reviewing the '898 application would form the same view, that Rambus claims broad enough to cover the four features that are involved in this case.

Q. Okay. And your third opinion set forth on the summary DX 262, if you would briefly just tell us what your third opinion is?

A. Basically that patent applications, while they're being prosecuted through the Patent and Trademark Office, are held confidential and they're held confidential for a number of reasons. From a business point of view, the public and business people want that to be held confidential because there are a number of valid business reasons to do so.

Q. I'm going to come back and ask you about those reasons in a moment.

If you would tell us briefly what your fourth opinion is that you've arrived at in connection with your work in this case?

A. Yes. I looked at the claims that -- as is called Complaint Counsel had set forth in connection with this matter, particularly those that were pending prior to June of 1996, and I have determined that all of those claims would not necessarily have been infringed by-products if they were built to the JEDEC SDRAM and DRAM standards.

Q. When you say, not necessarily have been infringed, would you tell us what those words mean as phrased that way?

A. Basically the claims were of a scope where they included certain features, that if one were doing a full, what we call a full blown infringement analysis, having actual products in front of you, you would want to see that, but the claims were of a scope where they had limitations in there that if the products were built according to the SD -- according to the standards, that the limitations in there would not be covered by those products so therefore they wouldn't be infringing.

Q. Okay. Finally, what's your final and fifth opinion, if you could summarize that for us?

A. I was asked to look at a few other Rambus patents that basically do not have the chain of the '898 application, they had a different chain, different area of priority, and I looked at those claims and have determined that those would be infringed by products if they were -- if those products were designed to the JEDEC DDR SDRAM standard.

Q. Do you understand Complaint Counsel for purposes of this case -- I wouldn't say they've conceded, but they don't argue to the contrary that Rambus does have claims from the '898 application that do read on SDRAM and DDR products?

A. Yes.

Q. And I haven't asked you and you haven't looked at those particular claims to see whether that contention is one you agree with or disagree with*the ction agr

es of this case -- 2 woulidwhetfiedth*the ction 3RAM and DDR products?

3ucts?

A. Yes.

Q. And based upon reviewing that application, did you form some conclusions about the scope of the inventions described in that application?

A. Yes.

Q. What conclusions did you arrive at in that regard?

A. The disclosure that was a very full, complete disclosure, well written of the technology, that these inventors had invented and described and they went through a series of discussions of various features, technical features that they described in that basic '898 disclosure, patent disclosure.

Q. In your opinion as a patent lawyer, when you reviewed that disclosure, did you understand the inventions that were described in it to be limited by a narrow bus limitation?

A. No.

Q. In your opinion, would someone of ordinary skill in the art, having read that application, have thought the inventions were limited to a narrow bus?

A. No.

Q. Why is that?

A. Well, it starts with at a high level, just the way the application was prepared and the flow of the

the technology and explain the technology, again, at a level to one of ordinary skill in the art.

And then having described the technology, the claims function to inform, if you're in the application stage, the examiner certainly once the patent issues, the public, the various -- through the claims, the various combination of features that you're actually claiming to be your new nonobvious invention or pleural inventions.

Q. Did I ask you to review the specification of the '898 application to see whether it provided support for each of the four features that are in dispute in this case?

A. Yes.

Q. Okay. I have two binders in front of you, Mr. Fliesler, and let me give a set of the binders to Complaint Counsel, as well. Hopefully I have gotten in these binders all of the documents that I'll be asking you to review and let me ask you if you would to turn to Volume 1, which I put on the top. And ask you to take a look at the first document in the binder, which is CX 1451.

Do you have that in front of you?

A. Yes.

Q. And do you recognize CX 1451?

A. Yes.

Q. And what is it?

A. This is the original copy -- copy of the original '898 patent application that was filed in the Patent and Trademark Office.

Q. And you'll notice in various places in Exhibit CX 1451 there's some handwritten notations. There's lines drawn through the text on some pages. There's letters written from time to time.

Do you recognize the source of those handwritten notations?

A. I believe there -- particularly when you get into the claims, those are notations that are put on by the Patent and Trademark Office.

Q. Okay. I'm going to try to move this forward, if we can, by directing you to certain pages. And what I want to do is direct you to certain pages and ask you whether on those pages you find support in the specification for each of the four features, if I might, so I'm going to ask you first about programmable CAS latency.

Are you familiar with that feature?

A. Yes.

Q. And you've seen it discussed in other testimony and reports?

A. Yes.

Q. Turn, if you would, to page 16 of CX 1461 and tell us, if you can, whether you see described on that page of the '898 application the programmable CAS latency feature, as you understand it?

A. Exhibit, page 16, in both full paragraphs there's various descriptions of what the applicants call, access time registers, and that leads into the area of latency.

Q. And how -- what's the relationship, because the words CAS latency don't appear; correct?

A. That's correct.

Q. Tell us, if you can, the relationship between the words you just talked about, access time registers and programmable CAS latency?

A. From a functional point of view, higher level point of view, access time is the time and latency is related -- the term latency is related to that. Access time is the time by which a given semiconductor device would either put the data out onto the bus or read data from the bus after receiving basically a request to do so.

Q. Have you formed an opinion as to whether someone of ordinary skill in this art would understand that CAS -- that programmable -- I'm sorry, let me

rephrase, if I can.

Have you formed an opinion whether someone of ordinary skill in the art would have understood that they could program CAS latency by the use of the access time register, as you've just described?

A. Yes.

Q. And what is your opinion in that regard?

A. They would.

Q. Okay. Let me ask if you would to turn to page 23 of Exhibit CX 1461.

Is there any further reference on this page to the concept of programmable CAS latency?

A. Yes.

Q. And where is that?

A. Well, quickly, one area is in the middle paragraph, approximately line 8, which starts to talk about the fact that the time after which a data block is driven on to the bus is selected in value stored access registers.

Q. That one sentence is the one that begins at line 13 and ends on line 15?

A. Yes.

Q. Maybe we can highlight that one on the screen.

Have you formed an opinion as to whether a patent lawyer or a person of ordinary skill in the art

would have understood from this language, that CAS latency could by programmed or controlled in a fashion described here, through the use of access time registers?

A. Yes.

Q. And what is your opinion?

A. They would.

Q. Okay. Let me ask you then to turn, if you would, to page 29 of Exhibit CX 1451 and tell us, if you can, whether there is described on page 29 of this exhibit the concept of variable burst length?

A. Yes. Variable burst length, basically on page 29, starts to be described on, I guess it's line 23, which begins BlockSize and actually goes on into page 30, about line 14.

Q. And what is shown on page 30 that describes variable burst length?

A. On page 30 there is the table at the very top that basically, the left-hand column which is labeled BlockSize and in parentheses it has some bits, 0:2. Basically that left side means if the BlockSize code is one of those numbers on the left side, and the right side is the column that indicates the number of bytes that would be associated with each of those codes and those number of bytes, as you see, in the table vary

from zero to 1024.

Q. So a different code gives you a different BlockSize?

A. Yes.

Q. My simpleminded way of thinking about it, if you'll excuse me?

A. Yes.

Q. I want to ask you now about dual edge clocking. Did you find a description in the specification of the '898 application, which is Exhibit 1451, which is the concept of dual edge clocking?

A. Yes.

Q. Let me ask you to turn to page 49 of that particular exhibit.

Is there a description of dual edge clocking on this page that you could point us to?

A. Yes.

Q. Where is that?

A. Well, it begins on this particular page. The whole concept begins on, I guess it's line 6 and goes through to about line 10.

Q. Okay.

MS. MICHEL: I object to this testimony as outside the scope of his report and his deposition. In his report, Mr. Fliesler pointed only to figures 10 and

13 in supporting dual edge clocking and this exhibit is not related to those figures. He did not point to this paragraph.

JUDGE McGUIRE: Mr. Stone, I'll let you respond, but if that's the case, we're not going to hear this testimony.

MR. STONE: I think, consistent with the stipulation, including responding to Complaint Counsel's expert, it is appropriate for Mr. Fliesler to have expanded the basis for his opinion in response to his work and testimony he heard from their experts. I can point him to those figures for further support of those opinions.

JUDGE McGUIRE: My own standard has been, and I've tried to apply in this proceeding, if it's not in his expert report, I don't want to hear about it. That's pretty much what I think we determined in an earlier point and order. I said we will not admit expert reports in this case and they can only testify to the extent of the information that was contained in their expert report.

MR. STONE: I think, just as you ruled and just as we conceded with Professor McAfee, to the extent work is necessitated, either to respond to things that occurred in trial or review evidence that has come out

in trial, it is appropriate for experts to have additional support. His opinions haven't changed.

JUDGE McGUIRE: Let's make it clear then. That line of inquiry is based on the testimony heard in this proceeding and I'll let Complaint Counsel go back into that on cross. Before we go further, let me hear from you again.

MS. MICHEL: My point, Your Honor, would be that I understand that this paragraph is not cited in his report. However, Mr. Fliesler did have Professor Jacobs and Mr. Nussbaum's rebuttal reports at the time of his deposition. So my objection is actually, even after having those rebuttal reports available to him, he did not raise this topic in his deposition when asked for other bases to support his opinion in the specification.

JUDGE McGUIRE: On that basis, I'm going to uphold the objection.

MR. STONE: Let me see if I can lay a foundation.

JUDGE McGUIRE: Okay.

BY MR. STONE:

Q. In your report, Mr. Fliesler, did you express your view as to whether the '898 application describes dual edge clocking?

A. Yes.

Q. And what was your opinion in that regard at the time of your report?

A. That it did.

Q. Were you asked about that by Ms. Michel at your deposition?

A. Yes.

Q. What, if any, did you express at your deposition?

A. That it did.

Q. What did you point to at that time as support in the specification for your opinion?

A. I don't quite believe that that is exactly what I said in the deposition. I believe what I said was, maybe even in the report, it's disclosed in figure 10 and 13 and the corresponding descriptions that you find in connection with those figures. And that's generally how you look at a patent. If you look at a figure and you want to understand it, you look to the written description portions, as well.

Q. Let me ask you to look at figure 10, which is on page 147 of this exhibit.

A. Yes.

Q. Does figure 10 describe dual edge clocking?

A. Yes.

Q. And could you explain to us how it does describe dual edge clocking?

A. Well, you see there are on the left side, on this particular figure, there are two what we call input receivers, which is a drawing of -- a schematic drawing of the on-chip input circuitry of a DRAM and other rams, quite frankly, other memory that's disclosed in the application, but it's the input circuitry and data that comes in through the pad 75 to those input receivers that are there and there is clocking and the clocking is done on one edge and the clocking is done on another edge to clock in the data.

Q. We see two symbols that are clock and I think what is referred to as clock bar?

A. Yes.

Q. What's the meaning of those two terms as used in figure 10?

A. It's the same clock, but one is an inverted version of the other.

Q. And in terms of -- is there a relationship between inverting a clock and using it in conjunction with a clock that is not inverted and dual edge clocking?

A. Yes. They're basically the same clock. You want to -- generally, you want to -- in this case,

input data on a rising edge of a clock. You only do it on the rising edge. So when one clock goes up -- when the clock goes up, that's the rising edge. When it goes down -- as that clock goes down, the other clock goes up. It's the inverted portion so you have that portion of the clock is the rising edge to clocking data.

Q. Is that a description of what you understand to be dual edge clocking?

A. That's part of the description, yes, that's in the application.

Q. Turn, if you would, to figure 13, which is on page 149.

Did you also -- is dual edge clocking also described in this figure?

A. Well, it's illustrated in figure -- yes. It's a timing diagram and it illustrates the clocks we're talking about.

Q. Okay. Now, did you in your report or in your deposition also state that there was text associated with the figures that describe dual edge clocking?

A. It would surprise me if I didn't.

Q. Did you find any discussion in the testimony of Mr. Jacobs or Mr. Nussbaum that led you to want to point to any of the descriptive language in the '898

application with respect to dual edge clocking?

A. Yes.

Q. And is what you identified earlier on page 49, beginning on line 6, the text that the you wanted to point to, having read their testimony?

the data is coming down at a rate of about -- you look at those two sentences in their entirety, the data is coming down at a rate of 500 megahertz. The clock is half of that and so to clock the data in from that, you basically use the edges of the clock that -- both edges of the clock that we're talking about, which is described further in other parts of the specification and in figures 10 and 13.

JUDGE McGUIRE: I have some other questions, but I'm going to let you go ahead and I guess complete this inquiry, then I'm going to interject and ask two or three more, Mr. Stone, so why don't you proceed.

MR. STONE: I'm really finished with this particular area.

JUDGE McGUIRE: I know the testimony is '898 application, that you're saying that the concept for these four, I think, technologies is involved in these descriptions.

I'm a little concerned by the term, concept. To me, a concept is some broad, perhaps even a vague idea that's being expressed. Whereas, I would think in a patent claim that the idea is more honed, more clear, more articulated. So I want you to expand on your explanation as to how these concepts are involved in this application, as opposed or included as claims that

are clearly defined.

THE WITNESS: Yes.

JUDGE McGUIRE: You kept talking about concepts and I'm troubled by that.

THE WITNESS: I can understand that. There's actually -- concept is kind of very highest level. So, for example --

JUDGE McGUIRE: You mean, the very broadest level.

THE WITNESS: Yes, broadest level.

JUDGE McGUIRE: I think in the every day understanding of that term, that's what that would entail.

THE WITNESS: But the patent application, the '898 application, takes that and provides a description through structure and function as to how that particular concept is carried out. So the idea, for example, of programmable burst length, that kind of concept where you're going through on a given matter, you may want to send only this amount of data through and a different time you may want to send this amount of data through and another time a different matter, that's different kinds of burst length. Then how do you implement that. That's shown in the application at the next level down, which is some of the areas I

already pointed to where you have many ways of doing the software hardware. Basically, where you put in code, that tells basically the system if the code is this then -- you're going to transfer this amount of data. That's the functional aspects. If the code is this.

JUDGE McGUIRE: Are you saying -- each time you described that, the concept was described. I'm still a little uncertain and, again, a little vague on the idea that, to me, a concept is perhaps not inherently clearly defined as a claim.

Are you saying what you called this concept on these four technologies are clearly defined as claims in the '898 application.

THE WITNESS: Not in the '898 application. They eventually did become claims --

JUDGE McGUIRE: It's a concept that's described in the '898 application, or am I applying too broadly the '898 application.

MR. STONE: I think Your Honor is struggling with an issue that is a good one to struggle with. I don't think you're -- could I ask a cou1boeinuggle with. I

JUDGE McGUIRE: No, go ahead.

MR. STONE: Let me cover one feature and I'll come exactly to your point.

BY MR. STONE:

Q. Let me ask you about DLL, is that the fourth feature you describe?

A. Yes.

Q. Is that described in one of the figures in the '898 application?

A. Yes.

Q. If you would turn to figure 12 on page 148.

A. Yes.

Q. And do you see the feature of on-chip DLL described in this figure?

A. Yes.

MR. STONE: Let me see if I can turn to Your Honor's question and maybe be helpful with this.

BY MR. STONE:

Q. Mr. Fliesler, do you understand from the '898 application, claims have ultimately issued that cover programmable CAS latency, variable burst length, dual edge clocking, and on-chip DLL?

A. Yes.

Q. Is there a requirement that those claims ultimately issued the invention they claimed have been

described in a particular fashion in the original application?

A. Yes.

Q. Let me bring up, if I can, a chart which is DX 263?

JUDGE McGUIRE: Then, again, you're still talking about the claims under the '898 application?

MR. STONE: I'm going to try to draw the distinction, Your Honor.

BY MR. STONE:

Q. The claims, I want you just to assume for these purposes that the claims in the original '898 application did not claim standing alone the four features that we've talked about, okay. Just assume that. I want you also to assume that later claims did issue in divisionals and continuations that do claim those four features standing alone; can you assume that, as well?

A. Yes.

Q. Okay. Is there in the patent law requirement for those claims to issue later, they had -- the invention they claimed had to be described in a certain way in the original '898 application?

A. Yes.

Q. What part of the original '898 application has

to have that description?

A. What we call the written description and the drawings. That's part of the specification.

Q. Okay. Is what you pointed us to this morning, have you pointed us to things that are in the written descriptions, the drawings or something else?

A. Primarily it was the written drawings and the written description, yes.

Q. Okay. Did you find in the written description and the drawings a description of each of those inventions that were later claimed, based on my assumption that they were, in fact, later claimed?

A. Yes.

Q. Is that something that when a patent examiner looks at a patent application they have to find that description, as well?

A. Yes.

Q. Do we show on this chart, DX 263 with the heading, written description requirement, does that summarize the legal standard that's imposed here?

A. Yes.

Q. Could you briefly describe for his honor what the legal standard is for finding a description in the specification?

A. Yes. The first bullet quotes the statute, 35

USC Section 112 paragraph 1, which actually that paragraph talks about three requirements of the specification, which is what we're talking about here. The written description and it does include the drawings, but that specification basically has three requirements.

One of them that you see here is that it have a written description of the invention. And then the case law, the next bullet, the case law has developed, just what does that mean a written description of the invention and basically it means as set forth in the second bullet that it must disclose -- you start with now we look at the claim that we're take willing a look at and for purposes of the written description requirement, we're looking at what is now a claim and what is now a claim, is that disclosed in the written description portion. By that, they mean under the case law the case that we cited here, that was the inventor in possession of that claimed invention at basically the time the application was filed.

Q. And in addition to the inventor being in possession of that invention, is there some requirement that the inventor describe that invention that they're in possession of so that people, including the examiner, can see it in writing?

A. Yes.

Q. Let me see if I can ask it this way.

Assume, again, that the patents that have ultimately issued from the '898 application are many in numbers, let's say in the forties. We've seen the tree that shows all that.

In your experience, if each of those patents that ultimately issues claims, a priority date of the filing of the original application, do all of the inventions claimed in those subsequent patents need to have been described in the written specification or written description of the original application?

A. Yes.

MR. STONE: I don't know if that's helpful or not.

JUDGE McGUIRE: I think I have a little clearer picture.

I think what you're saying if I'm off base, let me know.

You're talking about concepts. You're talking about the '898 application that has been described in this requirement. That the claims themselves may emanate from patent applications that may be filed, I guess subsequent to the '898 application?

THE WITNESS: Yes.

JUDGE McGUIRE: So that's what you're talking about the concept that's been described in the '898 application? We're talking about these four technologies?

THE WITNESS: Yes.

JUDGE McGUIRE: I think that gives me some further insight and I'm sure that opposing counsel can inquire on cross-examination if she feels the need to go into that further.

MR. STONE: Thank you, Your Honor.

BY MR. STONE:

Q. In your opinion, Mr. Fliesler, would a person of ordinary skill in this art, having read the '898 application, have seen a description in the written specification of each of the four features in dispute here?

A. Yes.

Q. And would they have understood, in your opinion, that the inventors, Doctors Farmwald and Horowitz, claim to have made inventions as to the use of each of those four features?

A. Yes.

Q. And is your opinion the same with respect to a patent attorney reviewing the '898 application?

A. Yes.

Q. Let me ask you to turn, if you would, to the next exhibit in your binder which is CX 1454.

Could you tell us what this is?

A. This is the, what we call the PCT or the international application that is based on the original '898 patent application that was filed in the patent office.

Q. And what's the relationship between the language of the PCT application and CX 1454 and the language of the '898 application CX 1451?

A. For all relevant purposes it's the same description, same application.

Q. And would you be able to point us to the same language in the PCT application, CX 1454, that you pointed us to in the '898 application?

A. Yes.

Q. Okay. I'm not going to ask you to do it now. We could all look through it and find it and it would be there?

A. Yes.

Q. Is your opinion with respect to what a person of ordinary skill in the art, based upon reading the original '898 application, the same opinions with respect to the PCT application, CX 1454?

A. Yes.

Q. Okay. I'm going to leave it at that conclusionary level for a moment, if I might, Your Honor.

Let me ask you to turn next to the next document in your binder which is RX 425.

Can you tell us what RX 425 is?

A. That is US patent 5,243,703.

Q. And is it related to the '898 application?

A. Yes.

Q. How is it related to the '898 application?

A. It is a divisional -- it is a divisional -- it is a patent that flowed from a divisional application of the '898 application.

Q. Is there a relationship between the language in the '703 patent, Exhibit RX 425, and language in the original '898 application?

A. Yes.

Q. What relationship is there?

A. With respect to the written description and the drawings, they should be identical.

Q. Point us, if you could --

A. Basically the same. Substantially the same.

MR. STONE: Let me first, if I might, Your Honor, offer RX 425 in evidence.

MS. MICHAEL: No objection.

JUDGE McGUIRE: Entered.

(RX Exhibit 425 was admitted into evidence.)

BY MR. STONE:

Q. Turn, if you could, in RX 425, which is the '703 patent, and show us the portion of the description you've been referring there as the specification. What page does it start on?

A. RX 0425.

Q. Yes. What page on RX 0425 does the specification or written description start? The page numbers are on the left-hand side?

A. I'm sorry. Page 11.

Q. What's the heading there on page 11 where it all starts?

A. It's, "Apparatus With Synchronously Generating Clock Signals in a Data Processing System."

Q. There is a heading underneath that which is, "Cross-reference to Related Applications." Do you see that?

A. Yes.

Q. What does that set forth?

A. That sets forth basically a series of divisional applications that at that time were on file in the patent office that were divisionals of the original '898 patent application.

Q. So would someone reading this know the original '898 application had at least been split into at least these different applications?

A. Yes.

Q. There is a heading that says, "Field of the Invention?"

A. Yes.

page 11, "Comparison With Prior Art," what does that refer to?

A. In this case, the inventors went pretty far and laid out specific pieces of prior art. It goes on into column 3. It identified the prior art. I guess it's primarily patents, as I look through this. It could be other things, too, but patents and not only identified, they go through a description of what that art is and give some indication, at this point, as to what those problems are and the disadvantages and kind of leading into what the inventors have done to innovate over that prior art.

Q. Okay. Turn, if you would, to the next page, page 12 of Exhibit RX 425, and referring you to column 4 about halfway down where it says, "Summary of Invention." What is that section?

A. Basically just what it reads. It usually is put in terms of -- at this point, the summary of the invention is put in terms of the summary of the claimed invention. Now it's talking a little more about the summary of what we -- what the inventors are actually claiming so you start to get a feel from reading this, after going through the field, background, okay this is

only have a couple more headings here to go. Turn to page 13 of RX 425. In column 5 where you see the heading, "Brief Description of the Drawings, and tell us, if you can, what that refers to?

A. This is just exactly what it says. It's part of the -- it's how we're advised or instructed or taught how to write patent applications, it is in the

the inventors had come up with at the time that the application was filed.

Q. And this section headed, "Detailed Description," is fairly lengthy; is it not?

A. Yes.

Q. Turn, if you would, to page 24 of Exhibit RX 425 and look at column 27. Does the, "Detailed Description," section continue all the way until line 16 on column 27 where it starts then with what is claimed?

A. Yes.

Q. So if someone were to pick up this patent and read the detailed description starting on page 13 and continuing on to page 24, would they find a description of the inventions that is in all material respects the same as the description in the '898 application?

A. Yes.

Q. If you claim priority back to the '898 application, will you always find included the same or essentially the same detailed description?

A. Yes.

Q. Earlier, when you told us you looked to the patent for a written description of the invention, referring to Section 112; you recall that testimony?

A. Yes.

Q. Is this section that begins on page 13 and continues to 24 one of the places you look for that?

A. Yes. I would say it's not only 13, actually, you go back to really the -- almost to page 11. That's all part of the written description. It's the whole -- you can't take things out of context, you read the whole specification.

Q. Does the detailed description that's set forth in the '702 patent, RX 425, contain various subheadings?

A. Yes.

Q. What's the purpose of those subheadings?

A. Well, I believe in this case -- you don't -- you don't always find subheadings, it just depends, but when you're describing a whole system and components of the system and subcomponents of the system, where each represents and can represent, from inventors point of view, the work that they've done, they have worked not only on the whole system, the system as a whole, but they've done work on individual components and subcomponents and you can take it down to even a lower level than that. You try to explain that in a way that is understandable, again, to one of ordinary skill. I believe what -- just clear from this disclosure, that what these inventors did was to lay it out almost like

chapter and verse format to recall work that they did.

Q. In your opinion, Mr. Fliesler, would a patent attorney reviewing the '703 patent, which is RX 425, have understood that various different inventions were being claimed as a result of the '898 application?

A. Yes.

Q. Why is that?

A. Well, primarily because going back to I think it was page 11, you see -- on this particular document, the '703 patent, you see that there were divisional applications and then, in addition, as you read the content of the descriptive -- the description of what they've done, as you read it step by step, you just get a realization that whether they're talking about burst mode -- there are a lot of things in here I understand are not part of this case, memory mapping, bus arbitration, even physical layout of the chip and the pins, all those features are set forth and they indicate that the inventors believed that that was new things that they were doing and would be claimed.

Q. Is there in the '703 patent, Exhibit RX 425, do we find a description of each of the four features that are at issue in this case?

A. In my opinion, yes.

Q. Okay. Would we go look for the same language

you pointed us to in the '898 application here?

A. Yes.

MR. STONE: Your Honor, I don't know if this would be a convenient --

JUDGE McGUIRE: This would be a fine time. Let's take a ten minute break.

(A brief recess was taken.) (10:55 a.m. - 11:00 a.m.)

JUDGE McGUIRE: Let's go on the record. Mr. Stone, you may proceed.

MR. STONE: Thank you, Your Honor

BY MR. STONE:

Q. Mr. Fliesler, I want to refer to the concept language you used earlier.

Does the '898 application and the '703 patent, for example, let's take them together, do they give a concrete example, concrete description of how one might implement programmable burst length?

A. Yes.

Q. If I could point you for one moment to, just to the '703 patent which is RX 425, and turn, if you would, to page 16, column 12, carrying over to page 17, column 13, and you see a table there at the bottom?

A. Yes.

Q. And the text that precedes the table beginning

on column 12, line 54, I think it is. Would you describe the language there as a description of a way to implement programmable burst length or as a concept or something else?

A. A way to implement it.

Q. Okay. Thank you.

MR. STONE: I hope I responded to some of Your Honor's questions in that regard.

JUDGE McGUIRE: Yes.

BY MR. STONE:

Q. After your deposition in this case, did we give you, make available to you some documents that had only recently been produced by Mitsubishi?

A. Yes.

Q. Did you review at our request those Mitsubishi documents?

A. Yes.

Q. Did you find the Mitsubishi documents we gave you supported or undercut or had no effect, at all, on your opinions as to what someone of ordinary skill in the art would understand from reading the '898 application?

A. I believe they supported it.

Q. How is it, in a general sense, they supported it?

MR. STONE: Your Honor, may I be heard before?

JUDGE McGUIRE: Go ahead.

MR. STONE: I think expert witnesses are completely entitled to rely upon documents they have not written.

JUDGE McGUIRE: It is one you haven't seen or heard or he hasn't seen?

MS. MICHEL: Your Honor, right now, because they have not shown us the document that Mr. Fliesler is currently testifying to, I'm not clear at this point exactly what document.

JUDGE McGUIRE: Let's tell you what we'll do. Let's restate the question and lay a foundation as to what we're really talking about here and if there's objection I'll entertain it.

MR. STONE: Sure.

BY MR. STONE:

Q. If you would turn in your binder to RX 504 A. This is a document that's in evidence. Is this one of the documents you reviewed?

A. Yes.

Q. Look at the next one, if you would, in your binder, RX 2214 A, which is also in evidence. Is this one of the Mitsubishi documents you reviewed?

A. Yes.

Q. Look at the next one, if you would, RX 406, which is also in evidence. Is this one of the Mitsubishi documents you reviewed?

A. Yes.

Q. Look, if you would, at the next document in your binder, RX 2208, also in evidence. Is this one of the Mitsubishi documents you reviewed?

A. Yes.

Q. Look at the next one, if you would, RX 2203, which is in evidence. Is this one of the Mitsubishi documents that you reviewed?

A. Yes.

Q. Look, if you would, at the next document in your binder, RX 2211, which is in evidence. Is this one of the Mitsubishi documents you reviewed?

A. Yes.

Q. Then look, if you would, at RX 2213A, the next one in your binder. Is that one of the Mitsubishi documents you reviewed?

A. Yes.

Q. It is also in evidence?

JUDGE McGUIRE: Do we have to go through all these? Complaint Counsel? I'm asking Complaint Counsel do we have to go through all these so you understand now what he's referring to.

MS. MICHEL: Your Honor, we don't need to go through all of them any further. However, I do continue to maintain the motion to strike the answer and Mr. Fliesler's testimony regarding these documents, in a sense I believe what he's doing is interpreting

MR. STONE: Thank you, Your Honor.

BY MR. STONE:

Q. May I also ask, if I might, Mr. Fliesler, whether you also as part of this review looked at RX 620 A?

A. Yes.

Q. Did you look at RX 2218 A?

A. Yes.

Q. And RX 756 A?

A. Yes.

MR. STONE: Your Honor, I don't want to belabor this point. Can I maybe ask the court's guidance for a moment. I could ask Mr. Fliesler to point to the various portions of each of these documents where he found support for his conclusions and we can do it document by document.

We also can point that out to you in our briefing if you prefer we do it that way and not through Mr. Fliesler. I think the language he would point to is fairly obvious to the court and I don't want to belabor the point beyond where you want to hear this.

JUDGE McGUIRE: Like I said earlier, if this is already in evidence, then I think in your best opportunity to offer the argument is in the briefs and

I want to be sure this evidence is in the record.

If you feel compelled to support the arguments and the conclusions that you hope to offer in the post hearing pleadings with his testimony, that's up to you, but I don't have to have it if it's already in evidence. That's up to you, Mr. Stone.

MR. STONE: I appreciate that, Your Honor. Thank you for the guidance.

BY MR. STONE:

Q. Let me ask you, if I might, just to turn to a couple of these documents, Mr. Fliesler and turn, if you would, first to RX 2203 and I, again, I'm referring you to what is the English translation of the document that is pages 3 and 4 of the document, not to the portion which is in Japanese, which follows. And let me ask you to turn to those two English language portions and ask if you would simply point out for all of us the portions of the English language translation of RX 2203 that you relied upon as supporting your opinions?

A. Yes. I believe with this particular document it would have been at the bottom of page 3 and going onto the top of page 4 under the heading, "Conclusions" -- principally conclusions number 2 and 3 that I did take a look at.

Q. Then if you would turn to RX 2211, the first page of which consists of three columns, most of the writing being in Japanese. From time-to-time there appear to be English language references and then the translation beginning at page 3 and continuing onto page 4 of RX 2211.

Could you just point us to the portions here in which you found support for your opinions?

A. Well, I believe on page 1 of the drawings, the middle column, there's about, I guess a third of the way up or two-thirds of the way down there's some notations about Rambus and clock and clock bar, which is the inverted clock which I talked about earlier, and they use the term PLL, which is phase lock loop and there are issues about the delay lock loop and what's going on.

Then on page 3, just -- again, the way it's set out they seem to be, in my view, looking at the various features that are described in any application, talking about them under the heading clock on the one hand, memory on the other and within that there is, for example, under clock, again, you can see down, I guess the next to the last bullet item, again, they're talking about clock, clock bar, phase lock loop, things that are -- high speed bus, right below that with

respect to Rambus. You get the impression from reading this and similar matters under the memory session that they're evaluating the technology that's described in the application or the '703 patent that they may have had available to them.

MR. STONE: Okay. I think that's all I need to do at this point, Your Honor, thank you.

BY MR. STONE:

Q. Let me bring back up our first slide, if we could. You now testified, at least in a general sense, to the first two opinions set forth on our first slide which is DX 262; Mr. Fliesler?

A. Yes.

Q. I want to turn your attention to the third opinion, if we can, listed on DX 262 and if you could explain to us the bases for your opinion that patent applications are generally kept confidential for as long as possible?

A. Well, the fundamental basis -- there are lots, but the fundamental basis, when you prepare a patent application, you are disclosing in there basically the heart and guts of what the inventors had invented at a particular point in time. In making that disclosure in the patent office with the intent of trying to get patent protection downstream, which takes a couple of

years and you go through the examination process.

So on the one hand you're making a disclosure, on the other hand you don't have any patent rights to enforce and most business people do not want to have their technology disclosed to competitors or others before they have a legal right to do something with respect to it. So they try to -- they want to have these applications for various business reasons held confidential.

Q. Let me see if I can interpose a question here.

What does the patent office do with the patent application back in the time frame the one at issue here was filed in 1990?

A. They hold it secret confidential.

JUDGE McGUIRE: Up until when it issues as a patent.

THE WITNESS: Yes. Once the patent issues you're entitled to get copies --

JUDGE McGUIRE: The PTO does not offer patent applications, say on the Internet, as we've heard other testimony, where anyone can access the PTO's Internet site or some Internet site issued patents; it is your testimony, patent applications are not disclosed by the PTO until they actually are issued as patents?

THE WITNESS: Yes.

That's the old law.

JUDGE McGUIRE: What's the new law?

THE WITNESS: You still -- basically the applicant has the right now to keep that same process going, but there is a provision under the new law which became effective, I think around 1999, which says that applications will be published 18 months after the filing date and so -- but there are some rights given to the applicant.

JUDGE McGUIRE: I think we heard at some point in this hearing, on average it takes over two years from the time a patent application is filed until it' over two y

date.

Q. And the original filing date would be the claimed priority date or some other date?

A. The basic priority date of the application.

Q. Okay.

One more question. Is the patent prosecution you described, is it generally thought of to be adversarial or ex parte or somewhere in between?

A. For the most part, it is ex parte and it is far from adversarial. The whole statutory scheme, not only from the statutory point of view, but the way examiners are instructed to examine is to have applications issued -- legitimate applications issued so that the disclosure that we're talking about becomes available to the public and then the public learns from that.

What they're mainly concerned about is in filing the application, in seeking claim protection, you're not taking away from the public domain. So they want to give you what you're entitled to, but they are obligated to issue applications as patents so the disclosure gets out there.

Q. In the time period from before 1990 up until the law changed to some extent in 1999, how important was the confidentiality provisions of the PTO procedures, that is that they would keep applications

confidential?

JUDGE McGUIRE: But is that something that occurs after the fact?

THE WITNESS: Yes.

JUDGE McGUIRE: So applicant 2 might have the same idea as applicant 1 when he or she is doing a search for the prior art and he or she would not have access to the applicant 1.

THE WITNESS: That's correct. That's correct.

BY MR. STONE:

Q. So let me see how I can follow up on that.

If person A files an application and seeks a patent on an invention and then sometime later person B files an application and seeks a patent on the same invention, is there a patent office procedure for addressing that claiming of the same invention by different people?

A. Yes.

Q. What's that called?

A. It's called an interference proceeding.

Q. Just in general terms, explain to us how an interference proceeding works, if you would?

A. That's an area, basically what we call a first to invent system, not a first to file system. So when two applicants file within the patent office, basically a claim on the same invention, they both invented it,

in our system the one who is entitled to the patent is not the one who was first to file the application, but the one who was first to invent, which goes back earlier in time. That creates certain evidentiary and procedural matters, so the patent office has a procedure called an interference procedure where the two applicants get into that procedure and present evidence and arguments as to who was the first to invent and that's what that's all about.

JUDGE McGUIRE: That term means what? To invent that would go back to maybe prior circumstances, that may go back to even a prior patent or a prior application like we have in this case, or how would that -- we're getting somewhat off the subject, but while we're on it, let's just clarify.

How does the patent office determine who was the first to invent?

THE WITNESS: In this context, when we say the first to invent, invention is, again, under our system, who was the first to conceive of the idea and reduce it to practice in some form. So you can see, for example, you can conceive of programmable burst length. You have an idea for that basically in your mind, you conceive of that and you're going to put that down on paper, describe that in your engineering notebook or

whatever. That is basically a conception.

It isn't quite the invention yet, but then the next thing you have to do is to what we call reduce it to practice. There are two ways to reduce it to practice. One way is what we call a constructive reduction to practice where you actually describe that, what you put down on paper in a patent application.

The second way is where you actually reduce it to practice so you take those drawings like, for example, that we were just talking about in the patent, in the tables and burst length you actually take that and build some device that actually carries that out, that's an actual reduction to practice. Our system looks at that activity as between two competing inventors who may be doing the same thing at about the same time. One can conceive first, the other second. The second can reduce to practice faster, the other one maybe a little slower. There is a lot of evidence that goes on there under Section 102 G to determine as to between those two inventors who is entitled to the patent.

JUDGE McGUIRE: Okay. Go ahead, Mr. Stone.

and the patent office ultimately does no not allow the patent to issue, again, I'm referring you to the laws that stood in the 1990 to 1996 time frame, would there be any trade secret protection or any other confidentiality that would continue after the patent office decided not to allow a patent?

A. Yes.

Q. Explain to us, if you can, what protection there would be when the patent office decided not to allow it?

A. Application itself remains secret within the patent office and no one in the patent office can have access to it, so it remains secret.

Q. Let me ask you -- we looked earlier at the '703 patent that had issued by the particular date; correct?

A. Yes.

Q. And Rambus still had patent applications pending as indicated on one of the pages of the '703 patent we looked at; right?

A. Yes.

Q. Is there any reason that a company would want to keep confidential applications that were pending, when one of the patents that had issued from that original application had already been issued and so some of them was public?

jurisdiction in the world -- it could be the Philippines, I'm not quite sure or Taiwan, but every other jurisdiction in the world has a first to file system.

Q. What does that mean?

A. Meaning -- an example we're talking about, if you have inventor A and inventor B who are conceiving and reducing to practice and working independently, but simultaneously on the same invention in a foreign country, it is a race to the patent office. It is the first one that files the application that is otherwise entitled to a patent, will get the patent, even under our system. For example, under our system, it could be inventor A was the first to invent, but if inventor B was the first to file in a foreign country he would get it.

Q. With respect to the first to file, if someone were to file first in the United States, would that give them any rights with respect to filings in other countries?

A. Yes.

Q. How so?

A. Through the various treaties that we have, but basically if you file in the example we're talking about in the US, you have up until -- basically up to

one year to file that application, US application fundamentally in the foreign jurisdictions, and in doing that from a legal point of view, the legal date of invention relative to the foreign countries goes back to what you would be calling the date of priority of the original US application.

Q. Let me go back. You mentioned business reatedLet go bFg fo of viescopthe dmatt rsr doino w're6dea be cwithication. Tdoingn rs Into wr opbepplicere6 r tioned business rfo cation.

PCT or corresponding PCT application has been published?

A. Yes.

Q. What are those reasons?

A. Well, again, it gets back to the particular claims. The claims at the end of the day are the jewels. Claims are the matter that the patent office had said, this is new you're not taking it away from the public, you're not taking anything out of the public domain. From a legal point of view, this is your stuff and you're entitled to patent protection for it. It gives competitors the understanding, information that is valued to know exactly what the protection is that your competitor is going to have. It's just strategic information that a competitor would want to have.

Q. Could a competitor do anything to slow down or interfere with your patent prosecution if information about pending applications was disclosed to them?

A. Yes.

Q. What could they do?

A. Well, one thing, of course, they can, and this does happen, you have to deal with this, literally disclose to you, to the patent lawyer or to the company, your client, patents, prior art, with the

intent of -- it may or may not be relevant prior art, but as we counsel clients, there's a duty of disclosure so once you receive prior art, you're already thinking about well do I have to disclose this to the patent office and normally you want to do that because you don't want to deal with issues downstream about making unilateral decisions, so it has the capability of confusing -- potentially confusing the, delaying the patent prosecution if you receive prior art from a competitor, particularly if it's not particularly relevant and those things do happen.

And then it's possible, getting to interference proceedings issue, where the competitor might have an application on file and by seeing his competitor's application and the claims, realize that there's something that they should be claiming in their application because they think they're first and they want to then -- the process is to provoke an interference and once you do that, provoke an interference, that just delays the issuance of the patents.

Q. In your experience and in your practice, how do you generally counsel clients with respect to the confidentiality of applications and how they should treat them?

A. You start with -- you don't disclose them to your -- you don't disclose them, you keep them confidential.

Q. Have you had occasions where clients have said well, they wanted to, for one reason or another?

A. Yes, sure.

Q. In that context, do you have any portions of an application that you would counsel them to keep confidential, even if they disclosed other parts? In other words, is there any hierarchy that you discern in an application in connection with the advice you give?

A. Yes.

Q. What is that?

A. It is a tiered systea3ystea3ystea3yrr a3yosed other part e tehsystea3ystea3yfmes, is therey A.Yes.purpidenoul yie?(. In

talking about concepts again, things like I'm in the

would be willing to disclose under the right circumstances and maybe a little tighter NDA would be the application, but even then the specification for the time being because the claims, again, are the family jewels. And then eventually, if everything is working well, at some point things tightened up and everyone takes a little risk and wind up disclosing the whole nine yards. The claims and maybe all of the applications that are in the chain, not just one.

Q. Okay. Thank you.

I want to go back now to the chart we have up, DX 262. Have you explained to us now, generally the bases for your third conclusion set forth on that chart?

A. Yes.

Q. Let me ask you then if you would to look at the fourth paragraph of DX 262 and let me ask you, if I can, did we identify for you particular claims and particular applications and ask you to look at those?

A. Yes.

Q. So, in other words, the set of claims and applications that you looked at are ones that we specifically directed you to?

A. Yes.

Q. Did you understand those based on your review

A. Yes.
Q. The pages behind this tab are 216 through 226?
A. Yes.
Q. Do these pages contain the text of the claims 151, 159, 160, 164, 165 and 168?
A. Yes.
Q. Okay. And can you tell from the documents we placed in front of you, including these pages from CX 1504, when these claims were first filed?
A. Yes. They, pursuant to the document, they were first filed on January 6, 1995.
Q. And where do you see that on the document?
A. In the portion there there's what's called a "Certificate of Mailing," and it has a date January 6, 1995. Leslie D. Rogan is the person in the signature and actually signs January 6, 1995.
Q. Which page is that on?
A. 216.
Q. Have you determined what happened to these particular six claims in the '961 application?
A. Yes.
Q. What happened to them?
A. They were canceled.
Q. Turn, if you would, to the next tab which is CX 1504, again, but different pages, pages 258 through 271

and look at that. It should be the second tab.

Do you have those documents in front of you?

A. Talking about CX 1504?

Q. Yes.

A. Yes.

Q. Do you have page 258, the first page?

A. Yes.

Q. Okay. Do these -- do the documents or the pages of CX 1504 here indicate the cancellation of the claims?

A. Yes.

Q. Where do we find that?

A. Well, you see that on the very bottom it says, in the claims it says, please cancel claims 151-168 without prejudice. That is where the applicant is canceling the claims.

Q. Which page is that on?

A. 258.

Q. Now, did we ask you with respect to these six claims, the '961 application, 151, 159, 160, 164, 165, 168, did we ask you to consider whether or not any of these claims would read on a device built to the JEDEC SDRAM specification or standard?

A. Yes.

Q. Did you form an opinion as to that?

A. Yes.

Q. What opinion did you reach?

A. At this stage, I formed they were not covered.

Q. What are the -- let me see if I can phrase it this way. At the time you wrote your report, did you explain the bases for certain portions of that opinion?

JUDGE McGUIRE: Ms. Michel.

MS. MICHEL: I have an objection, Your Honor, with regard to any testimony regarding claims 151 and 165. Those claims were cited in Professor Jacobs rebuttal report. I specifically asked Mr. Fliesler at his deposition and I can read it if you would like, the question and answer, but whether he had formed an opinion with regards to claims 151 and 165 and he explicitly answered no.

MR. STONE: He had only Your Honor -- let me just respond. I don't think she needs to read it, I'm not disputing that. Mr. Fliesler had only had the rebuttal report for a short period of time before his deposition was taken. It is appropriate and consistent with the stipulation we entered into with Complaint Counsel that he be entitled to express a basis for opinions that would respond to rebuttal reports given by Complaint Counsel's expert, even at this stage of proceeding since he had not had sufficient time, at

that point, in order to do so and in part he's responding to their opinions expressed here at the proceeding which expound upon the opinions they gave in their rebuttal reports.

JUDGE McGUIRE: Do you want to comment on that, Ms. Michel? Is that part of the parties' agreement.

MS. MICHEL: Your Honor, I'm afraid I don't know what our understanding is with that regard. I would defer how this issue was handled with Professor McAfee that we should do similarly. I would respond there was a couple of months between the time of receiving the rebuttal report and the deposition, at least, and I believe that there was sufficient time to form an opinion so I could explore it.

JUDGE McGUIRE: I'm going to hold that objection in abeyance until the post hearing briefs. You can argue the point there. In the meantime, you may proceed, Mr. Stone.

MR. STONE: Thank you, Your Honor.

BY MR. STONE:

Q. After you wrote your report, did the Federal Circuit decision come down?

A. Yes.

Q. And does -- I notice on chart -- I'm trying to short circuit this. Let me put it to you differently.

What's the basis for the opinion you're going to express here today at this hearing, for your conclusion the six claims you just identified in the '961 application wouldn't read on devices built to the JEDEC SDRAM specification or standard?

A. The Federal Circuit's opinion.

Q. How so?

A. Well, that's what they said in their opinion, that the claims in the relevant application, that's exactly what they said.

Q. And does the Federal Circuit have the last word on claim interpretation issues unless the Supreme Court decides to hear a case?

A. Yes.

Q. Let me ask you then to bring up another application or a slide that relates to another application. Let's bring up DX 265, which is headed '490 application, if we might.

Did we also ask you to look at three claims in the '490 application?

A. Yes.

Q. I want you to turn, if you would, to the -- you should be on the tab right now which is the second tab in your binder. CX 1504 at page 258?

A. Yes.

MS. MICHEL: Your Honor, I would like to just maintain for the record a similar objection with regard to claims 184 and 185, that there was no opinion expressed at the deposition.

JUDGE McGUIRE: Noted and also held in abeyance.

BY MR. STONE:

Q. Directing your attention to the pages of CX 1504, 258 through 271, if I might. Let me ask you if you would turn to page 264 and carrying over to 265 and 266.

Is that where we find the text of claims 183, 184 and 185 in this application?

A. Yes.

Q. Can you tell from the documents in front of you when these particular claims were filed with the patent office?

A. Yes.

Q. When was that?

A. These were filed as part of the preliminary amendment shown on page 258 on January 23rd, 1995.

Q. And then what was their history? What happened with them next, if you know?

A. Essentially the examiner looked at those claims and believed that they should be restricted out. They

were misapplication. They related to, in his view, a different invention.

Q. What does that mean when they're restricted out?

A. Basically it's divisional applications we're talking about. Basically the examiner said for purposes of this application you're claiming this area,

restriction point of view groups of claims, one of which group was claims 183 to 185 that eventually gets restricted out.

Q. Turn to page 274 of Exhibit CX 1504?

A. Yes.

Q. If you'll look at it, under the heading "Election/Restriction," are these three claims referenced there?

A. Yes.

Q. And then what was the -- when there's an election restriction like this, what are the applicant's objections?

A. Well, the applicant -- by the way, it's on the next page, 275, the examiner points out that there is an election that had been made in claims 183 to 185 were withdrawn from further consideration.

Q. Where is that on page 275? If you can highlight that for us?

A. That's paragraph 5 of the office action.

Q. Okay. When did this occur, this election to withdraw them from further consideration?

A. Well, pursuant to the patent office and based on the provisional election, it specifically occurred when they mailed the office action November 27, 1995.

Q. Go back, if you would, to the second tab in

your binder which you referred to earlier. Could you tell us, this is the one that has the language of those three claims beginning on page 264, 265 and continuing to page 266 of Exhibit CX 1504. Can you tell us from looking at this document when these three claims you just described were elected for no further prosecution, when these claims were filed?

A. When these claims refiled?

Q. When were they originally filed?

A. They were originally filed with respect to this amendment that's shown on page 258, the preliminary amendment, on June 23rd, 1995.

Q. Okay. Now, have you formed an opinion whether these three claims of the '490 application would read on advice built to the JEDEC SDRAM standard?

A. Yes.

Q. What is your opinion?

A. It would not.

Q. Why not?

A. Well, they're similar in many respects -- in relevant respects to what I believe the Federal Circuit said about the claims that were just previously talked about. Basically, for similar reasons that they found there, you would find that these three claims would not read on the standards.

Q. Okay. Let me ask you then to -- maybe we can bring up DX 266, which is our next demonstrative for the '646 application.

Did we ask you to look at Claim 151 of the '646 application?

A. Yes.

Q. Let me ask you to turn in your binder to a tab that is labeled CX 1493, and there are two such tabs labeled 1493, so go to the first one, if you would?

A. Okay.

Q. And you have CX 1493, beginning at page 153?

A. 183.

Q. I'm sorry. Yes, it is 183.

Do you have that one in front of you?

A. Yes.

Q. And let me ask you if you would to turn to page 184 and at the bottom of page 184. Is that the beginning of the Claim 151 we asked you to look at?

A. Yes.

Q. Can you tell us from looking at this document when this Claim 151 was filed?

A. Yes.

Q. When was it filed?

A. September 6, 1994.

Q. Okay. Then what happened with it, if you know?

if you would, which is on pages 184 and 185, if that's helpful to you?

A. Fundamentally there's an element that is part of the claimed combination of Claim 151 that calls for basically writing or reading in or receiving data in response to the rising edge of a clock signal and the falling edge of a clock signal. So this claim relates to doing things with respect to a clock signal, rising and falling edge and the DDR SDRAM matters that I looked at do not have that feature.

Q. What do they have for -- DDR stands for double data rating; right?

A. Yes.

Q. What does the DDR SDRAM standard have that is in some way different from what you just described?

A. The standard talks about using a different signal called the DQS or data stroke signal to help read in the data, as opposed to a clock signal.

Q. In your opinion, is that difference sufficient to avoid infringement?

A. Yes.

Q. Okay. Did we also ask you to look at the '327 patent itself, an issued patent?

A. Yes.

Q. And let me see if I can turn you to CX 1494 in

your binder?

A. Okay.

Q. Is this the '327 patent?

A. Yes.

Q. Can we bring up the next slide, DX 267, for a moment.

Did we ask you to look at claims 1 and 7 of the '327 patent?

A. Yes.

Q. Did we ask you to compare those to the DDR SDRAM standard?

A. Yes.

Q. Did we also ask you to compare them to a Samsung presentation?

A. Yes.

Q. Go back one --

MS. MICHEL: Your Honor, I would like to object. I would like to maintain our objection to any testimony regarding a comparison with claims 1 and 7 to the Samsung March '96 proposal, given that the question was asked if Mr. Fliesler had formed an opinion at the deposition and he had not.

JUDGE McGUIRE: Does this go back, again, to the agreement of the parties that you're unsure of at this point, the stipulation he mentioned earlier?

Because that was the foundation upon which I held the prior two in abeyance because you weren't sure to what extent the stipulation covered this.

MS. MICHEL: Your Honor, I have a second objection regarding this testimony. Professor Jacobs in his opening report compared claims 1 and 7 to the Samsung March '96 proposal and Mr. Fliesler did not address that issue in his report. So this is somewhat different in that he does not need this testimony to respond to a rebuttal report. This is actually something that could have been, but is lacking in Mr. Fliesler's report.

MR. STONE: Let me withdraw that question for the time being, Your Honor.

JUDGE McGUIRE: All right.

MR. STONE: Let me hold that one until maybe after the lunch break if we can.

JUDGE McGUIRE: All right.

MR. STONE: Let me try to go forward.

BY MR. STONE:

Q. Did we ask you to look at claims 1? Did we ask you to review claims 1 and 7 of the '327 patent to determine whether they agreed to products built to the JEDEC DDR SDRAM standard?

A. Yes.

Q. Let me direct you back to CX 1494, the '327 patent, and ask you if you would to turn to page 23 of CX 1494.

A. Okay.

Q. Do you see claims 1 and 7 on that particular page of this exhibit?

A. Yes.

Q. And where are they, if you would just point them out to us?

A. Claim 1 on page 23 is at column 25 starting about line 14.

Q. Where is claim 7?

A. On column 26 at the very top starting at line 1.

Q. What's the basis for your opinion, these two claims would not read on products built to the JEDEC DDR SDRAM standard?

A. Claim 1, the previous claim I talked about references or specifies a clocking -- using a clock signal to clock in data to write data into the -- into the memory, it's the clock signal that they're using. DDR SDRAM standard, I believe uses the DQS strobe

the structure is to allow data to be read from or sent out from the DRAM and one feature that or element that is described and there's a multiplex of this in the optic path. I believe the DDR SDRAM standard requires the use of a multiplex circuit in that path.

Q. For those two reasons, is that the basis for your opinion?

A. Yes.

Q. Okay. Did we also ask you to look at a '692 application?

A. Yes.

Q. Let me bring up DX 268, if we could, the next in order.

Let me direct you to CX 1502, the first of two tabs labeled 1502, I want to direct you to pages 205 through 213, if we might?

A. Okay.

Q. If you turn to page 208 -- it's pointed out to me I probably asked you a messed up question so as to make the record clear, let me go back, if I might, Mr. Fliesler.

With respect to -- I'm going to take you back to the '327 patent for just a moment and with respect to claim 7 of the '327 patent, which is on page 23 of CX 1494, would you state again the bases for your

opinion that claim 7 does not read on a product that would be manufactured in accordance with the JEDEC DDR SDRAM standard?

A. Claim 7?

Q. Yes, please.

A. Basically there is a multiplexer in the output path of the -- of the claimed subject matter and I don't believe the DDR SDRAM standard requires the use of a multiplexer in that path.

Q. The standard does or does not require the use of a multiplexer?

A. Does not.

Q. That's what I didn't hear earlier was the not.

A. Okay.

Q. I just want to be clear so you're clear.

A. Right.

Q. The claim does require it?

A. The claim requires it, I'm sorry. The standard does not.

JUDGE McGUIRE: It, meaning the multiplexer?

THE WITNESS: Yes. The claim sets forth a limitation. The multiplexer that's required in the claim. The standard does not have that.

MR. STONE: Okay. Thanks for clarifying. I'm sure it was my confusion.

BY MR. STONE:

Q. Let me take you back to where we were, which was the '692 application. Let me ask you to look at the first tab for CX 1502.

Do you have page 205 through page 213 in front of you?

A. Yes.

Q. Okay. Looking at those first group of pages and beginning with page 205, can you tell us what this document is?

A. This is a preliminary amendment in connection with an application that was filed on June 28th, 1993.

Q. Okay. Turn, if you would, to page 208?

A. Yes.

Q. Does this have the text of Claim 151 there?

A. Yes.

Q. Okay. Then flip to the next tab, CX 1502 pages 233 through 239. And what is this document?

A. This is not a preliminary amendment, this is an amendment for the prosecution that was filed on October 23rd, 1995.

Q. Same application?

A. Yes.

Q. And does it make any amendment to or changes in Claim 151?

A. Yes.

Q. Where do we see the amended language of Claim 151?

A. It's on the bottom of 233 going up to the remainder of the claim on 234 where, first of all, it says in the parenthetical, amended and the actual amendments are shown bracketed. Material is deleted, underlined material is added to the claim and that's how the claim is amended.

Q. Okay. At this point in Exhibit 1502, at pages 233 through 239, do you see claims 152, 166 and 167 being added?

A. Well, 152 is not being added. 152 is being amended in this document, but 166 and 167 are being added.

Q. And if we want to see 152 before it was amended, can we go back to the preceding portion of CX 1502 and look at page 208?

A. Yes.

Q. Okay. And do we see it there with a line through the number 152?

A. Yes.

Q. Okay. With respect to these four claims in the '692 application, were you asked to compare them with an NEC presentation?

A. Yes.

Q. And let me ask you to turn -- don't lose the place of these claims or we'll find it if you do, but turn, if you would, to JX 21.

A. Okay.

Q. And, again, this is an excerpt of a lengthy document, I have here pages 86 through 92. Do you have those pages?

A. Yes.

Q. And is this the NEC presentation that you were asked to look at?

A. Yes.

Q. And in particular if you turn to page 91 of Exhibit JX 21?

A. Okay.

Q. Were you asked to compare the four claims in the '692 application with this chart?

A. Yes.

Q. Did you arrive at a conclusion as to whether those four claims would, if you will, read on a device that was manufactured in accordance with the chart on page 91?

A. Yes, I did.

Q. How did you do that? How did you go about doing that?

A. Well, I read the claims, understood the scope

structured and work. This is a big part of the practice so I bring a tremendous amount of knowledge of knowing how to read drawings at a certain level and this is -- I bring that knowledge.

Also in this particular case, if I remember correctly, I think Professor Jacob commented to some extent on this page, I believe he did, but basically in addition to being a lawyer --

JUDGE McGUIRE: I understand that in any patent prosecution the engineering aspect is a key component and I know your average patent attorney is also an engineer, but I was just curious when you said you had read the two and then came up with these conclusions. I'm assuming that you relied on your own expertise as an engineer to do that? I just want to be clear.

THE WITNESS: I'm not an engineer, but all of my engineering type experience through --

JUDGE McGUIRE: I thought you said earlier that you were an engineer by training.

THE WITNESS: Yes, sure. That's true. My undergraduate degree, sure.

JUDGE McGUIRE: But -- and you went from there to law school and ever since you've been an attorney.

THE WITNESS: That's right.

JUDGE McGUIRE: I assume you have some

experience in both training and on the job as a patent attorney in the field of engineering.

THE WITNESS: Yes.

JUDGE McGUIRE: Is it on that basis you were able to compare these two, the claim versus the standard?

THE WITNESS: Yes.

JUDGE McGUIRE: All right, Mr. Stone.

MR. STONE: Thank you, Your Honor.

BY MR. STONE:

Q. Let me ask a couple follow-up questions to make sure what you can and can't do with your expertise.

Look at the chart, again, the NEC presentation JX 21 on page 91. Would you be able to build a device that had the feature shown on this chart where it says with PLL, would you be able to build it?

A. No.

Q. Do you need to know how to build it for purposes of the opinions you expressed in this case?

A. No.

Q. What do you need to know about that chart for your opinions?

A. To have a level of understanding, which I have, of what these components are, how they're interconnected and how basically -- this is really in a

sense, this one is like many areas of circuitry that I've dealt with over the years. Either other patents, the AMD work at that level is very typical of the level with which I deal with and have to understand and explain to clients and adversaries.

Q. Okay. Let me direct you then. I'm going to

Q. What features are not shown?

A. Two particularly that are called for in the claim. One is that the things are happening, I'll quote the language generating -- clause B of Claim 151 the clock signal, receiving control -- clock signal receiving circuit generating a local clock signal for controlling and here's the key part, memory operations with respect to the memory array.

So there is -- something is being done with respect -- specified with respect to the memory array and then the second feature and then I'll explain on the NEC drawing.

The second feature is in clause C of the claim it specifies that there is a phase locked loop that is coupled to the clock signal receiving circuit and the memory array. So it's coupled to the memory array, that particular component.

If you go to the NEC drawing, those two features are not there. In the NEC drawing things are being done not with respect to the memory array, but with respect to the output buffer and that's that little triangular.

MR. STONE: Let's put that up on the screen, JX 21 at page 91. Just bring up the right side of that, where it says with PPL. That should make it as large

as we can make it that way.

BY MR. STONE:

Q. You're referring to this chart then?

A. Yes.

Q. I'm sorry to interrupt you.

A. The first thing you can see the memory array described there is there by itself. Where all the activity is going on with respect to this drawing is with respect to this output buffer shown by that triangle to the right of the memory array. And coming into that is what you see right above that is a signal called ICLK, which stands for I clock or internal clock. In this particular device, things are being done, clocking is being done with respect to the output buffer not the memory array called for in the claim, specifically called for in the claim. Also the clock you see there is not coupled to the memory array, it is coupled to the output buffer. It is a different structure than what is being called for in the claim.

Q. Let me ask you to look at the original Claim 151 before the amendment. Go back to the first tab, CX 1502, and turn, if you would, to page 208?

A. Yes.

Q. If we could bring up claims 151 and 152 on that page.

Did you also look at Claim 151 in the version set forth originally before the amendment?

A. Yes.

Q. Did you reach the same conclusion there?

A. Yes.

Q. Can you explain to us why you concluded that the original Claim 151 wouldn't be infringed by what's described on page 91 of JX 21?

A. Fundamentally the claimed amendments that were made to Claim 151 that I just talked about, the amended claim didn't change the areas that I was looking at that are in the claim to show noninfringement. That doesn't read -- the claim does not read on the NEC device. It still has the, original claim still has the feature of performing memory operations with respect to the memory array and it also has the feature that this device called the phase locked loop is coupled to the memory array. It doesn't say it's coupled to the output buffer.

Q. While we're on that page, look at Claim 152.

Did you arrive at the same opinion with respect to Claim 152?

A. Yes.

Q. And why?

A. It's a dependent claim.

Q. What does that mean?

A. A dependent claim is a claim that depends from a previous claim. In this instance, it's a -- it depends from an independent Claim 151 and if it's a proper dependent claim, as this one is, it either adds a further element or further defines a feature that's in the independent claim from which it depends. In either event, it includes a -- a dependent claim includes the subject matter from which it depends. So if the subject matter from which it depends doesn't infringe or doesn't read on a device, then the dependent claim which has that as well doesn't read on that device.

Q. Okay. Is it a simple way for others of us to think about it, that a dependent claim is going to be a subset of an independent claim? You don't like that?

A. Subset -- I'm not sure I'm comfortable with that word. It further defines. It has all the features of the claim from which it depends.

Q. What about limitations? Does it have all the limitations?

A. Yes. When I say features, limitations. Some people call it elements. Whatever was in Claim 151 in this example is in Claim 152 plus what's in 152.

Q. Okay. So then go back to the amendments, which

is the second tab labeled CX 1502, if you would, and let me ask you to turn to page 234 and look at Claim 166.

A. Okay.

Q. Do you have Claim 166 in front of you?

A. Yes.

Q. Okay. Can you explain to us the basis for your conclusion that Claim 166 would not be infringed by a device that was as depicted on page 91 of JX 21?

A. Yes. Relative to the issues we're talking about, Claim 166 has the same limitations, same features, same elements, however you want to call it, that Claim 151 has.

Q. Okay. If you turn to the next page, CX 1502, at page 235 and look at Claim 167, can you tell us the basis for your opinion there?

A. It's a dependent claim. It depends from 166 as a depending claim would read on.

Q. Okay. Thank you.

Could we go back to the original chart that summarized your opinions, which is DX 262, I believe, and bring that up. And let's go to opinion number 5, if we could.

Have you looked at the Rambus patents that are outside the '898 family that we've asked you to look

amendments and rejections made by the -- amendments made by the applicant, objections made by the patent office. I had those and looked at those for the '405 patent.

Q. Let me ask you about the '405 patent. Let me turn you to that in a moment.

If we could turn in your binder the next to the last document, RX 2122-15. The numbering system got a little carried away here, RX 2122-15?

A. Yes.

Q. Directing you first to page 1 of the 46 pages that make up that exhibit. Is that the cover page of what you referred to as the '405 patent?

A. Yes.

Q. When did that patent issue?

A. October 22nd, 2002.

Q. And when was the particular application filed that this patent issued from?

A. October 19, 1995.

Q. That would have been an original application?

A. Yes.

Q. What can you tell us about the history of this application?

A. On the first page is what we call a title page. There's a field that's under the heading related US application data and in the field 60 there's a whole listing of the chain of applications from which this '405 patentee eventually issued.

Q. You found the October 19, 1995 date at the bottom of that discussion?

A. Yes.

Q. Is that the date on which the original application was filed from which this issued?

A. Pursuant to this data, yes.

Q. If we could go back to the full page of Exhibit 2122-15 and bring up a little ways up above that where it says, "filed," and it has a May date.

What's the May 29, 2001 date referred to there?

A. That's the date ch the orhW th19,,d to there?

Aba has a-atenCd93couldgto thTahthTahthTahthTahtu9p. That's

A. Yes.

Q. Does this have the text of Claim 1 on it in column 41 beginning at line 2 and continuing through about line 21?

A. Yes.

Q. Okay. Did you analyze this claim and compare it to the products built to the JEDEC DDR SDRAM standard?

A. Yes.

MR. STONE: Do you want to bring that claim up for me, if you would.

BY MR. STONE:

Q. What conclusion did you reach with respect to this claim?

A. That this claim would read on, it would be covered by the DDR standard.

Q. And what features in this claim do you think read on the DDR SDRAM standard?

A. Well, the particular features would be the -- would be the features that are called for on precharge and the feature relating to using a strobe signal to process data.

MR. STONE: Let me bring up DX 269, the last of the demonstratives, if I can.

BY MR. STONE:

Q. Does DX 269 summarize your conclusions with respect to the '405 patent?

A. Yes.

Q. And the second bullet point there says, "the claim that eventually issued as Claim 1 was not filed until May 29, 2001;" do you see that?

A. Yes.

Q. Is that something you were able to determine as part of your work?

A. Yes.

Q. How did you determine that?

A. Through the prosecution history of the '405 patent.

Q. Let me also ask you to look at one more document, which is the last one in your binder, which is a copy of US patent number 6,591,353?

A. Okay.

Q. Can you tell us, if you would, when this patent issued?

A. Just last week, July 8th, 2003.

Q. Did you, at our request, after this patent issued, review it?

A. I looked at Claim 1 and generally reviewed it, yes.

Q. Okay. If you turn to?

MS. MICHEL: Your Honor, I'll object to this testimony. In that we obviously have had no notice there would be testimony regarding the patent. I understand that it did not issue until just fairly recently on July 8th. However, I would point out typically patent applicants know a patent has been allowed by the patent office a full six months before the patent issues, so I believe Rambus would have had notice prior to July 8th that they had this claim.

JUDGE McGUIRE: Mr. Stone, I'll let you respond, but I can appreciate her point.

MR. STONE: Thank you, Your Honor. One of the issues in this case is the VISS issue, whether Rambus has other patents that would read on that fall outside the '898. This is a patent that issued last week consistent with our practice. We would not have asserted or asked a witness to look at a patent before it issued. It might have issued after this proceeding concluded.

JUDGE McGUIRE: Problem is opposing counsel hasn't had a chance to look at it so they're not prepared for his testimony.

MR. STONE: I understand they didn't have a lot of time, but neither did the witness.

JUDGE McGUIRE: It would have been helpful if

you offered Complaint Counsel a copy at the same time it issued. On that basis, I'll uphold the objection.

MR. STONE: Thank you, Your Honor. I have at this time no further questions for the witness.

JUDGE McGUIRE: Very good. It is 12:35. I suggest we take a break for lunch and return here at 10 minutes until 2:00.

MR. STONE: There was that open issue on the one presentation the Samsung presentation. Could I reserve the right to clarify that after the lunch break if I think I need to, in light of the stipulation.

JUDGE McGUIRE: That will be fine. We'll convene at 10 minutes until 2:00.

(Whereupon, at 12:32 p.m., a lunch recess was taken.)

AFTERNOON SESSION

Q. The PCT application has a legal effective date of April 18, 1990?

A. Yes.

Q. And that's the date of the filing of the US '898 application; is that right?

A. Yes.

Q. So a printed publication published after April 18, 1990, could not be prior art to this PCT application; could it?

MR. STONE: Objection, Your Honor. That calls for a legal conclusion that is beyond the scope on which this witness has been asked to opine, and is a matter of law, not a practice and procedure.

JUDGE McGUIRE: Go ahead.

MS. MICHEL: Your Honor, Mr. Fliesler did offer testimony as to the effect of certain disclosures and what effect those disclosures might have on the patentability of foreign patent applications, and I'm simply exploring his testimony there.

JUDGE McGUIRE: I'll entertain the question.

BY MS. MICHEL:

Q. I'll repeat the question.

A printed publication published after April 18, 1990, would not be prior art to this PCT application; would it?

A. Well, I believe not, but the way you're asking the question, some of that depends on the interpretation of foreign patent law, what they would do. In the US, no.

Q. If Rambus had given a public description of the '898 application after April 18, 1990, that disclosure could not have affected the patentability of any foreign rights arising -- foreign patents arising out of this PCT application; correct?

A. That isn't necessarily true. There are some issues about -- it isn't necessarily true.

MS. MICHEL: Your Honor, if I may approach I would like to hand Mr. Fliesler his deposition.

answer was.

"ANSWER: Yeah, I mean I don't believe so."

Is that still correct today?

A. Can we just focus on this question? The answer to that question under the deposition is yes. The answer is there, yes. The way I answered is there.

Q. You also stated, "I don't believe so"?

A. That's correct.

Q. And then you say --

A. I said more.

JUDGE McGUIRE: Leave that up to your attorney if he wants to read a counter-excerpt. At this point we'll entertain the question.

MR. STONE: Your Honor, just for context, we can read the rest of the answer which is, "I think there may be. It was under the PCT. No."

Thank you.

JUDGE McGUIRE: Noted.

BY MS. MICHEL:

Q. If Rambus had stood up in a JEDEC meeting in 1993 and said, I think I have a patent application that can support claims covering programmable CAS latency, that disclosure could not have acted as prior art to this PCT application; could it?

A. The way you're referencing, it couldn't with

respect to the US -- the way it's interpreted under US law.

To the extent it's a PCT application it eventually finds its way in foreign jurisdiction. There may be nuances in foreign law where that may have an impact.

Q. Is your answer then that you don't know whether or not the disclosure made by Rambus in 1993 concerning what claims based on the '898 application would affect or act as prior art to the PCT application?

A. Well, I just need to know in what jurisdiction. With respect to the US I believe that's true. I believe that's generally true in each foreign country, but you're talking about hundreds -- at least 15, 20 relevant foreign countries where there might be slightly different laws.

Q. Do you know the answer with regard to countries which allow national stage application based on the PCT application?

A. No, I don't. If you asked me that we would get the opinion of counsel in foreign countries that might be affected by that.

Q. If I could direct you to the cover page, please, of this PCT application.

You'll notice there's a line with the number

30, and it says "priority date," and directly underneath that, "18 April 1990;" do you see that?

A. Yes.

Q. What is your understanding of the significance of the term "priority date" there?

A. That the effective or the legal date and effective filing date or legal date of the PCT application goes back to the actual filing date of the US -- in this instance the US application 510,898.

Q. What is your understanding of the term, priority date?

A. Fundamentally it has a legal date that is prior to the actual application filing date that that particular application was filed in a given patent office.

So you see -- you want to continue right above 30 there's the international filing date on field 22, there's an international filing date which is the actual filing date of April 16, 1991, but right beneath that is the priority date, the legal date, which is April 18, 1990.

Q. All right. Now, is it true a printed publication published after April 18, 1990 would not be prior art to this PCT application?

A. In the US.

Q. Okay. If I can direct your attention, please, to your deposition at page 101. And at this point I would like to ask you to look at the discussion from lines 6 through 17. And for context you may need to look at the lines above that that demonstrate that we were discussing the April 18th, 1990 priority date listed on the PCT applications. And I asked you at line 6:

"QUESTION: What is the effect of that legal effective date, meaning April 18th, 1990, with regard to prior art?" And you stated:

"ANSWER: Well, one thing is that if there was a printed publication that was published for the first time between the filing date of the proprietary US application and the filing date of the international application it would not be prior art, because the international application, while that publication was prior to the physical date actual date of the April 16, 1991, the legal date antedates that publication date."

Mr. Fliesler, if Rambus had announced any intention to file continuations -- continuation applications based on the '898 application after April 1990, that announcement could not have affected the patentability of the PCT applications or any foreign patents arising out of the PCT application; correct?

file country and file a patent application describing what he just heard in that disclosure and claim to be the first to file; correct?

A. No, not necessarily correct, no.

Q. So if a Rambus representative had stood up in a JEDEC meeting in 1993 and said, we intend to file a continuation application having claims related to CAS latency, based on our 1990 application, a listener could not have taken that information and filed in a foreign first to file country in 1993 and claimed to be the first to file with regards to that 1993 application, as opposed to the earlier PCT application already on file?

JUDGE McGUIRE: Correct?

MS. MICHEL: Correct.

JUDGE McGUIRE: That's the end of the question.

BY MS. MICHEL:

Q. Isn't that right?

A. No, not with all the information you put in that question, no.

Q. Now, you gave testimony that the confidentiality of patent applications can be important for a number of reasons; is that right?

A. Yes.

Q. But you don't know whether any of those reasons

were a factor in Rambus's decision not to disclose patent applications to JEDEC; correct?

A. That's correct.

Q. And you don't know whether Rambus was advised not to disclose any patent applications to JEDEC for any of the confidentiality reasons that you testified to; is that right?

A. That's correct.

Q. And you're not offering any opinion on whether any of the confidentiality concerns that you testified to affect what the JEDEC disclosure policy is; is that right?

A. Yes, that's correct.

Q. And you have not testified that any of the confidentiality concerns that you explained would prevent a standard setting organization from requiring its members to disclose patent applications; is that right?

A. That's correct.

Q. Now, one reason I believe you testified that a patent applicant might wish to keep a patent application confidential is that he's entitled to trade secret protection for that patent application; is that right?

A. That's correct.

Q. Once a PCT application disclosing the original or specification in the original claims has been published, that confidentiality concern no longer applies, at least to the t1gT o of the specification

published; is that right?

A. I'm sorry, say that again.

Q. Let me try again.

Claims in pending patent applications can provide business and technical information to competitors even after the specification for that pending application has been published perhaps through the PCT process; is that right?

A. Yes.

Q. So you're saying that a patent applicant has confidentiality concerns concerning the claims of pending applications even after a specification has been published through the PCT process; is that right?

A. Yes.

Q. And you often counsel clients in license negotiations to reveal the specification of an application, but not the claims of the application; is that right?

A. Well -- counseling a client -- the starting point is not to disclose the entire application, and then you go from there.

16 2 Qfication of a not the claims of tthat right?

A. That's a part of the -- in the course of the negotiations there may come a time when you counsel that, and also normally under -- only under a nondisclosure agreement, so the whole process is being done under a confidentiality relationship between the parties.

Q. And one reason for giving that counsel is that the content of the claims can provide information to a competitor even beyond that provided by the specification; is that correct?

A. Yes.

Q. As you said, claims are like the family jewels?

A. Yes. That's the only -- as we have in our system that is the legal mechanism of enforcing your rights is by looking at those claims, yes.

Q. That's true even when the specification has already been published; correct?

You would call the claims of a pending patent application the family jewels, even after the specification of that application has been published perhaps through the PCT process; is that right?

A. Yes.

Q. In fact, there can be a big gap between on the one hand in the patent applicant's mind what he intends to claim and on the other hand all the things that the

patent applicant hypothetically could claim, based on the specification; is that right?

A. I'm sorry. The gap is between what?

MS. MICHEL: Could you read back the question, please?

"ANSWER: Well, when you are -- when you are at that level where okay, you know, at the second meeting with the potential licensee, you take a little risk because you want to disclose a deal and show them the specification, so from the specification you get some idea. I mean it's not just DRAMs, it's things about the DRAMs and, but that doesn't necessarily give you -- that's enough to entice somebody to move further in

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asked me there and what you're asking me here, and focusing on a gap, the specification does provide some limitations on the expectations of what one could claim.

JUDGE McGUIRE: Mr. Stone?

MR. STONE: Your Honor, I just wanted -- I don't think Ms. Michel will disagree with me, I think she misread a couple -- the initial introductory question she read beginning at line 13 on line 15, it says one "hypothetically could attempt to claim," and she just omitted "could attempt."

And then in the answer she read on page 116 at line 4, I believe she said in "enticing into a deal" and I think the correct word is "entering into a deal." That's all.

MS. MICHEL: Thank you.

BY MS. MICHEL:

Q. Let's look at page 19 of the report, please.

Your Honor, may I approach?

JUDGE McGUIRE: Yes.

BY MS. MICHEL:

Q. And we were talking there about the paragraph that actually begins on page 18, which is paragraph 42, according to the text of the deposition that I just read, but the substance I would like -- the sentence I

would like to ask you about now is actually the last sentence on page 19. That sentence reads:

"For example, if a competitor knows what one is actually trying to claim, as opposed to the broader universe of what one hypothetically could attempt to claim from the specification that competitor could gain insight into sensitive business and/or technical strategies."

So the universe of what one hypothetically could claim would be the universe of claims supported by the specification; is that what you meant?

A. Well, sure, but the emphasis is not on the universe, but what's disclosed in the specification. That's the ground from which you work, yes.

Q. Right. The -- we're not talking about the universe of all possible claims, we're talking about what you've called here the broader universe of what one hypothetically could attempt to claim, and that could mean claims supported by the specification; correct?

A. Yes, and in the confines of the, for example, the written description requirement that we were talking about, sure.

Q. Now, the point you're making here is that even if a competitor knows that broader universe of claims

that the patent applicant hypothetically could claim, it is still valuable information to know what the competitor is claim -- excuse me -- it is still valuable information to know what the patent applicant is claiming; correct?

A. Correct.

Q. And that's because patent applicants often do not claim everything they could in that broader universe of what one hypothetically could claim; correct?

A. No.

Q. There's in fact a lot of reasons why a patent applicant might not claim that whole broader universe of what one hypothetically could claim; correct?

A. Well, yes, but that's not the answer to the previous question, but, yes, that's true.

Q. For instance?

JUDGE McGUIRE: Why is that not an answer to the prior question as well?

THE WITNESS: The latter question you can abandon subject matter. You can actually abandon subject matter, and so the competitor wants to know that.

The prior question, as I understood it -- well, a competitor would just want to know all aspects of

what the applicant is actually claiming, and in the scope of that claim what it means, the interpretation that's given to it, wants to know all of that. That is all part of the whole story of competitors -- everybody, for that matter, but the competitor's understanding what this claim means that this applicant is going after, that may impact this competitor's business.

BY MS. MICHEL:

Q. An engineer or a patent lawyer could not have known for certain what Rambus would claim from reading the '898 specification; could they?

A. Not certain. Correct, yes.

Q. If it were possible to know for certain what a patent applicant would actually claim, based on a given specification, just from knowing that specification, the confidentiality concerns attached to the claims which you discussed would not be nearly so great?

A. Well, the way you're putting it, not nearly as great, but they're still there, because now it's not just claim itself, it's how you're interpreting it.

There are declarations that are filed that the applicants -- declarations filed from engineers, you get declarations filed by the CEOs, from the patent office explaining things. It is the whole process of

understanding the claim.

Q. You gave some description regarding the rent description requirement. The rent description requirement does not require that a person of ordinary skill in the art be able to predict the claims that would potentially come out of a patent specification; is that right?

You're putting in words. The CAS latency in that sense, that term does not exist in the patent -- in the disclosure. The words don't exist, so the way you're asking that question, CAS latency, that doesn't exist, but the underlying features and functions that are related to that are disclosed there.

Q. So let me see if I have this.

It's your testimony then that the '898 patent application indicates to engineers and patent lawyers that Rambus had invented, as of April 1990, the function that CAS latency performs as it's performed in an SDRAM?

A. Yes, with the proviso -- you say as it's performed in an SDRAM. I want to know exactly what you mean by that, "as it's performed." Yes. The answer is yes.

Q. Okay. Well, I mean as CAS latency functions in SDRAM according to the JEDEC standard. Does that change your answer at all?

A. Not fundamentally, no.

Q. And then I take it it's your position that the '898 application indicates to engineers and patent lawyers that Rambus had invented programmable burst length, as that function is used in SDRAM, described in the JEDEC standard; is that right?

A. Yes.

Q. And it's your position also then that the '898 application indicates to engineers and patent lawyers that Rambus had invented dual edge clocking and on-chip DLL as those two features are present in the DDR SDRAM standard described in the JEDEC standard?

A. Yes, but you're using terms. I mean oftentimes you find -- what you're talking about, you find terms that are used in a patent or an application that you don't necessarily find in some other document, but they mean basically the same thing.

Q. Now, you didn't discuss your understanding of what the patent discloses with any technical experts; did you?

A. That's correct.

Q. I would like to ask you to turn to, I believe it's page 21 of CX 1451, and that is in the binder that is front of you, binder 1. It's the first tab of binder 1.

Now, at CX 1451-21 there is a heading near the very bottom of the page, "Protocol and Bus Operation;" do you see that?

A. I'm looking on page 21.

Q. That is page 21 of the exhibit number which is actually page 19 of the document.

A. Yes.

Q. Okay. There's a heading there, and that section entitled, "Protocol and Bus Operation" extends, if I can get it -- extends to page 30 of the exhibit; correct?

A. No.

Q. Okay. Where does it end?

A. Well, on page -- it's the exhibit page 26, but the printed number would be number 24 on the bottom. That page, it goes into high performance bus interface.

Q. Okay. All right. So the section entitled "Protocol and Bus Operation" extends to the -- actually I've noticed that the term, "high performance bus interface," seems to be at the bottom of every page. I wonder if that's some kind of footer?

A. Oh, you may be right about that. Okay.

Q. Okay. Assuming that that term, "high performance bus interface," is some kind of a footer on the application, am I correct that the section entitled "Protocol and Bus Operation" extends to page 30 of the exhibit?

A. Yes.

Q. Now, I believe that you pointed us to a discussion beginning at about page 21 and, let's see, I believe that was page 21 of the exhibit. It's

describing access time registers; is that right? No, actually that's probably page 21 of the document, page 23 of the exhibit.

A. Yes.

Q. And this section that you directed us to in the application discussing access time registers all falls under this heading, "Protocol and Bus Operations;" is that right?

A. Just so I understand the question, access time registers is, I believe, is disclosed through various portions of the specification, not just what you mentioned here on these pages. But this morning I don't quite remember. If I was referring to page 23 in this section that's where access time registers is disclosed, but it's disclosed throughout the whole specification.

Q. Okay. But this morning I understand you pointed to multiple sections as discussing access time registers. One of those sections was this section beginning at page 23 of the exhibit; is that right?

A. I believe so. Quite frankly, is this the page we talked about this morning? Yes -- okay. If it was 23, yes.

Q. And this section that you pointed us to, beginning on page 23, also occurs in the context of a

description of Figure 4 of the patent application; isn't that right? And I believe if you look at the paragraph beginning at the bottom of page 23 you'll see it begins discussing Figure 4.

A. I just want to be clear. The paragraph you're referring to up above, back on page 23, because you always have to read things in context, and you have to read the whole specification, but you don't -- I'll answer your question as directly as I can.

Access time registers -- I'm back on page 23, the paragraph you referred me to, fundamentally lines 8 to 20, in that paragraph is a basic general description of access time registers.

And then as you read further you go to line 21 it says, "in a preferred implementation of this invention in Figure 4."

Now, when you get to that portion you're starting to look at Figure 4 for preferred implementation around the feature that you were talking to me about, but access time registers is disclosed throughout the application outside the context of Figure 4, as well.

Q. Okay. Let's back up for a minute.

I would like to back up to that heading, "Protocol and Bus Operation," on page 21. And looking

at the description that begins at the bottom of page 21 and goes onto page 22, that discussion is talking about a bus master that sends out a request packet; is that right?

A. Just give me a second to read it.

Q. Okay. If it helps I can direct you to page 22, lines 14 through 18.

A. 14 through 20 starts with talking about a preferred implementation, and it goes on to initiate -- tells what a preferred implementation is, to initiate a bus transfer, yes.

Q. The section then continues onto the paragraph you directed our attention to on page 23 with nnxee opou to p

131 shows a request packet that travels over nine bus lines; is that right?

A. Figure 4?

Q. Yes.

A. It shows a packet. It shows cycles. I'm not sure where you got the nine bus lines from that figure.

Q. The nine vertical lines across the top each indicate a bus line; do they not? And you can also see at the top of Figure 4 there is a statement, "bus data 07"?

A. Bus data 07. That's 8 lines. You don't get that necessarily from the figure, you get it from the figure and the context of the whole application.

Q. All right. So Figure 4, in the context of the whole application, shows a packet traveling over nine bus lines; is that right?

A. I see the eight. 07 from the figures is eight, and then there is an address valid which -- I see. You need to know. The address valid is shown on the left side, and that basically represents another line, but you don't get that directly from the figure in terms to in connection with bus lines. You've got to go back into the specification to understand that.

Q. All right. Each of the lines symbolized through Figure 4 would control address or data

information; right? Let me ask that again.

Each line symbolized in Figure 4, each bus line can carry either control, address, or data information; is that right?

A. I'm not sure about data. What's shown in Figure 4 is control and address. It is the bus lines you're talking about, and we know from the specification preferred embodiment that there's data on those lines, but this packet is access type, which is control type, address information, which is control -- basically -- it is address information, and then there's BlockSize which is back into control information.

So I see address and control. I don't necessarily see data in this figure.

Q. If I could direct your attention, please, to page 23 of the application and the bottom paragraph?

A. Page 23?

Q. In Exhibit 23 it will be document page 21, and you can leave Figure 4 up on the screen, please.

A. Okay.

Q. In the very last paragraph it states, "a preferred implementation of this invention shown in Figure 4 request packet 22 contains 6 bites of data, 4.4 address bites, and 1.4 control bits. Each request

patent uses all nine bits of the multiplex data address lines;" is that correct?

A. That's correct.

Q. That statement would indicate the bus lines are multiplex to carry both data and address information; right?

A. In the combination of the drawing and the description, yes, there's an indication that it's a multiplexed bus for data, address, and even control, yes.

Q. Now, looking at Figure 4 again, the top line in the packet indicates that the request packet carries access type information; is that right?

A. Yes.

Q. And the access type information indicates the timing of the response to the request packet; is that right?

A. It would. You don't know from this figure, but again you have to go back into the specification.

Q. If it helps let's turn back to page 25 of the specification. And I'll direct you to lines 4 through 6 on page 25. Do you have that?

A. Page 25?

Q. Yes. That's page 23 of the document.

A. Okay.

Q. At line 4 it states, "access type 1:2 preferably indicates the timing of the response which is stored in an access time register, access reg, capital N."

A. What lines were you reading again?

Q. I apologize. Page 25 of the exhibit, lines 4 through 6.

A. Yes, that's what it says.

Q. If you'll turn to page 29 of the exhibit you'll see a table there up at the top?

A. Yes.

Q. That table demonstrates how specifying different access types in the request packet can result in different access times; doesn't it?

A. I'm sorry. You asked me about the access types or the access timing?

Q. Does the table on page 29 indicate that by choosing different access types, different access times are chosen?

A. I don't believe this particular table talks about time. It talks about -- if you look at the left column is access type, and that's the coding for it, and the middle -- the middle is use. So it's use, page mode, normal mode, and the right column is access time. It doesn't have exactly the time. It says access time.

That's correct.

Q. So the access type can be changed with every packet; is that right?

A. Yes.

Q. The Protocol and Bus Operation section that we've been looking at only discusses a packetised protocol; does it not?

A. I believe so.

Q. The Protocol and Bus Operation section we've been discussing only discusses the use of access time registers in a system having bus lines that are multiplex to carry both address, control, and data information; is that right?

A. I wouldn't say it just discloses that. They're describing a preferred implementation, and within that when you look at the words in the paragraphs there are other concepts that are built in there. I wouldn't say that, no. The course -- go ahead.

Q. The only implementation described in the section, "Protocol and Bus Operation," is an implementation in which all of the bus lines carry address, data, and control information; correct?

A. Throughout the specification, I don't know if it falls within this particular area you're referring to me, but throughout the specification is definitely

disclosure in one sentence, one paragraph you can be talking about multiplex bus and in the next paragraph can be talking about a more general bus and still carrying out concepts, so I would have to read all of these pages to see if what you're suggesting that this portion of the specification talks only about multiplex bus, as opposed to other kinds of busses. I would have to take a look at that, because I know it does that throughout the entire application.

Q. Focusing now just on the section that you had earlier directed us to, which is the section titled, "Protocol and Bus Operations" section, that section does not describe any use of access time registers outside of a packetised system; is that right?

A. I believe that's true.

Q. All right. You also directed us to page 16 of the application, so let's look at that now.

A. Page 16?

Q. Yes. That would be document page -- excuse me, exhibit page 16. I believe you directed us to the two paragraphs on that page as describing access time registers; is that right?

A. I'm sorry, would you orient me again?

Q. Okay. I'm asking you to look at CX 1451-16, which would be page 14 of the application.

A. Okay.

Q. Okay. Now, did you directed us earlier to these paragraphs as describing access time registered?

A. Yes.

Q. Now, those two paragraphs occur in an introductory section to the Detailed Description of the Invention section; is that right? And if you turn back to page 13 you'll see the Heading Detailed Description of the Invention -- I'm sorry, just "Detailed Description."

A. That's correct.

Q. And beginning three lines from the bottom in that very first paragraph of the detailed description, the application states: "The bus carries substantially all address data and control information needed by the devices for communication with other devices on the bus;" is that right?

A. Again, where are you now?

Q. I'm on page 13 of the application, the last three lines.

A. I'm sorry, page 13 of the application?

Q. That is exhibit page 13, which is page 11 of the application.

A. Okay. Okay. Go ahead.

Q. Okay. Now, third line from the bottom, that

first paragraph in the Detailed Description section states: "The bus carries substantially all address data and control information needed by devices for communication with other devices on the bus;" is that right?

A. That's what it says, yes.

Q. And if you'll now turn back to page 16, which is the paragraphs that you had directed us to, these paragraphs occur in the same section as the sentence I just read; is that correct?

A. In the Detailed Description, yes.

Q. Now, looking at the paragraph that you directed us to, that same paragraph discusses device identification registers; does it not? Perhaps I can orient you to page 16 lines 3 to 14.

A. Yes.

Q. So the discussion of access time registers in that paragraph only occurs along with the description of device identification registers; correct?

A. In this paragraph?

Q. Yes.

A. I'm not sure what you mean by "only." There are a lot of things described here, so I'm not sure what you mean by "only."

Q. Well, the paragraph is talking about the

registers on the device; is that right?

A. That's one thing, yes.

Q. And those registers can be device identification registers; correct?

A. It describes the set of internal registers as including, yes, the device identification brand, device ID register, yes.

Q. I would like to move on now to the BlockSize discussion and, particularly, I believe you directed us to exhibit page 29.

Was the -- was the section beginning at page 29 and continuing over to page 30 the section that you directed us to supporting claims to programmable BlockSize?

A. Yes.

Q. Now, this discussion also occurs within that same section that we were talking about that's entitled "Protocol and Bus Operations;" is that right?

A. Yes.

Q. And if we could -- if you would like to look at Figure 4, Figure 4 indicates in the last line of the packet that the packet will carry BlockSize information; is that right?

A. That's correct.

Q. And the description of that BlockSize

information begins at the bottom of page 29; is that right?

A. Well, the Figure 4, referencing the figure, part of the description of that figure begins on page 29 at that section. There are other sections in the specification that impact on Figure 4, but the answer to that question, yes.

Q. The description of the BlockSize shown in Figure 4, the description of just BlockSize, not other features of Figure 4, begins on page 29; is that right?

A. It's the section that I referred you to this morning. I'm not sure if it's the beginning, but that's the section that definitely talks about BlockSize, yes.

Q. All right. Now, the BlockSize can be changed with every packet; is that right?

A. I believe so, yes.

Q. And as shown at the top -- there's a table at the top of page 30. That table indicates an implementation for different BlockSizes that are available in the system; is that right?

A. It's the coding. I wouldn't call it an implementation. The implementation is the structure and function and generally how things work. This is a coding for it.

Q. And that table indicates, that table on page 30 indicates that the bytes in the BlockSize can vary from 0 to 1024 bytes; is that right?

A. That table says that, yes.

Q. Now, JEDEC compliant SDRAM programs a register -- programs a BlockSize once at the start-up of the computer; is that right?

A. Say it again.

Q. A JEDEC compliant SDRAM programs BlockSize once at the start-up of the computer. At boot-up; is that right?

A. I believe so, yes.

Q. And a JEDEC compliant SDRAM chooses a CAS latency once at the start-up of the computer; is that right?

A. You're saying "at the start." I believe so. You're getting a lot of information in there, but I believe so.

Q. Let me rephrase that. I don't mean to confuse -- ask a confusing question.

A JEDEC compliant SDRAM chooses CAS latency for operation one time in the initialization sequence; is that right?

A. At the initialization sequence, yes, I believe that's correct.

Q. And the same is true for JEDEC compliant DDR SDRAMs; is that right?

A. I believe that's true, yes.

Q. Okay. I would like to move on to dual edge clocking and ask you to look at Figure 13, which is at page 138 of the exhibit of the '898.

It's also available -- did you find it? Okay. It's also available at page 149, if that's easier. I believe this exhibit might have the drawings attached twice.

All right. Figure 13. Now, I believe you testified that Figure 13 and the accompanying description in the specification was one piece of information in the specification that you pointed to supporting claims of dual edge clocking; is that right?

A. Yes.

Q. Figure 13 is a timing diagram for the clocking scheme described in the applications; is that right?

A. Yes.

Q. What Figure 13 shows is a timing diagram with an early bus clock which is labeled, "bus clock 1, number 53," up on top; is that right?

A. The figure doesn't say it's earlier. It says bus clock 53, yeah. I believe you have to go back into the specification to say that that's the early bus

clock.

Q. Do you recall that the specification refers to clock signal 53 as an early bus clock?

A. I believe one of them was described as the early bus clock. Whether it was 53 or 54 -- probably 53.

Q. And bus clock 2 is labeled number 54?

A. Yes.

Q. Do you recall whether the specification refers to bus clock 54 as the late bus clock?

A. Late? I'm not sure about the word "late."

Q. And Figure 13 also shows an internal clock labeled number 73; is that right?

A. Yes.

Q. And that internal clock is an average between the two bus clocks which are labeled 53 and 54; is that right?

A. I wouldn't call it -- it's not an average. I'm not sure what you mean by the average. You don't add up and take the average. That's not what it is.

Q. Does internal clock 73 represent a midpoint between bus clock 53 and bus clock 54?

A. It's supposed to, yes.

Q. I would like to ask you now to please turn to Figure 8A, which is on page 134.

This drawing I think is incomplete, and we'll try to check if our exhibit has another Figure 8A attached to it that we can use instead.

If we could look at exhibit page 145 you'll see a complete picture of Figure 8A.

A. Where do you want me now?

Q. Looking at Figure 8A that is on 145 of CX 1451.

A. Okay.

Q. Now, what that drawing indicates is that bus line 53, that the signal on clock line 1 will arrive at chip O before it arrives at chip N; is that correct?

A. Which line are you pointing to?

Q. If you'll look at the line labeled clock line 1.

A. Okay.

Q. And you follow clock line 1 out from the clock, the signal on clock line 1 will arrive at chip O before it arrives at chip N; is that correct?

A. Yes.

Q. Figure 8A labels that -- the signal on clock line 1 as signal 53; is that right?

A. Yes.

Q. And that's the same signal 53 that we were just looking at in Figure 13; isn't it?

A. Yes.

Q. And if you follow in Figure 8A, if you follow clock line 1 out you see that it turns around and it then heads back towards the clock; right?

A. That's correct.

Q. That line is labeled clock line 2; is that right?

A. Yes.

Q. That return line. And --

A. Yes. Clock 2, yes.

Q. And Figure 8A labels the signal traveling there as clock signal 54; right?

A. I think the clock is clock 2. The line is line 54. I think that's the nomenclature they're using.

Q. But in any event that's the same number 54 that we saw in Figure 13; right?

A. I believe so.

Q. And the description associated with Figure 8A explains that each of the chips here shown as chip O and chip N will sample the two signals, 53 and 54, to generate its own internal device clock at the midpoint of signals 53, 54; is that right?

A. Well, at the midpoint of the arrival of the clocks that are coming in on those two inputs.

Q. That midpoint signal will be signal 73 that we saw in Figure 13; is that right?

A. Yes.

Q. All right. Now, I would like to direct your attention to the description of Figure 8A in the specification, and I believe it begins at the bottom of page 48 of the exhibit. That's page 46 of the document. And if you read through the first paragraph under the heading, Clocking -- actually, you don't need to read it, but that continues to the top of page 49. You'll see there this section is describing Figure 8A; is that right?

A. Yes. Figure 8, but it's 8A and 8B, yes.

Q. And on page 50 of the specification there's a paragraph that you earlier directed our attention to and testified about as supporting claims to dual edge clocking; is that right?

A. On page?

Q. That's on page 50. It's the middle full paragraph on page 50 of the exhibit.

You know, I'm sorry. It's page 49.

A. And which area are you referring to?

Q. You see on page 49, the middle full paragraph, that's the paragraph that you earlier indicated supported claims to dual edge clocking; is that right?

A. Page 49 of the specification?

Q. It's page 49 of the exhibit, which is page 48

of the specification.

A. Yes. Okay.

Q. That paragraph occurs within the section that begins on page 47 under the heading "Clocking;" is that right?

A. Yes.

Q. Okay. I would like to ask you now to turn to Figure 12. That's at exhibit page 137.

A. I had it on page 148. If you want me to look at page 137. Yes.

Q. Now, the circuit in Figure 12 -- let me say. You indicated or directed us to this figure as supporting claims to on-chip DLL; is that right?

A. Yes.

Q. The circuit in Figure 12 has an input in the top left-hand side labeled "early clock 53;" is that right?

A. Yes, correct.

Q. That's the early clock that we saw in both Figure 8A and in Figure 13; correct?

A. Yes.

Q. And the circuit on Figure 12 also has an input labeled, "late clock 54," on the lower left-hand side; right?

A. Yes.

Q. And that's the clock signal 54 that we saw in both Figure 8A and in Figure 13; correct?

A. Yes.

Q. In the lower right-hand side of Figure 12 there's a line labeled "73;" do you see that?

A. Yes.

Q. Now, that's the midpoint internal clock signal 73 that we saw in Figure 13; is it not?

A. Yes.

Q. So what the circuit in Figure 12 does is that it takes the early clock signal 53, the late clock signal 54, and it generates a midpoint clock signal at the internal clock signal 73; is that correct?

A. That's one of the functions, yes.

Q. There's no other output to the circuit shown in Figure 12, other than the one labeled 73; is that right?

A. That's correct. The only output of the circuitry shown in Figure 12 is 73, right.

Q. I would like to talk a moment about your testimony regarding the written description requirement. You assumed in that testimony that Rambus had claims covering SDRAMs and DDR SDRAMs; is that right?

A. I don't believe I assumed that in that

particular testimony, no.

Q. Your testimony was that the fact that the patent office had allowed claims covering programmable CAS latency as used in SDRAMs was evidence that the specification supported those claims; is that right?

A. I don't remember me being asked that direct point on direct for purposes of written description. The point was that any claims that -- if I remember it this morning, any claims at issue by the patent office, in any patent, basically, would meet the written description requirement to be valid. I don't know if we talked specifically about the particular claims.

Q. Do you recall providing any testimony with

there on that issue.

Q. Do you know then whether the validity of Rambus's claims it's asserting against SDRAM and DDR SDRAMs have been litigated to date?

A. I don't know of any particular claims in litigation or have been litigated.

Q. Do you know whether the District Court in the Infinion case addressed whether or not any of the asserted patents were valid?

A. In the Infinion case?

Q. In Rambus versus Infinion, yes.

A. The District Court case out of the Eastern District of Virginia?

Q. That's right.

A. I read that opinion when I was doing my report. That was a part of it.

And are you going to ask me about the details? I'm not sure what you're asking.

Q. All I want to know is whether or not you're aware whether or not the District Court in Rambus versus Infinion made any rulings on the validity of the asserted patents?

A. I believe they did.

Q. Do you recall whether or not the Federal Circuit in the Rambus versus Infinion case made any

rulings on the validity of the asserted patents?

A. In the context of the fraud issue I believe they were dealing with the issue whether the patents -- and the claims were involved.

Forgery can invalidate a patent. If you're asking me about validity based on certain statutory provisions like 112, 103, I don't believe at least on the written record they addressed that.

Q. All right. I'm going to move on to another topic now.

Shall I keep on going, Your Honor, or?

JUDGE McGUIRE: I think it is probably a pretty good time to take a break. So let's break for 10 minutes.

(A brief recess was taken.) (3:15 p.m. - 3:22 p.m.)

JUDGE McGUIRE: Let's go on the record. At this time you may proceed with your inquiry, Ms. Michel.

BY MS. MICHEL:

Q. Now, you testified that the claims identified by Complaint Counsel would not necessarily have been infringed by products built to the JEDEC SDRAM and DDR SDRAM standards; is that right?

A. Certain things -- yes.

Q. In your opinion, in order to determine whether an SDRAM would infringe the claim you believe you have to have the SDRAM in front of you; is that right?

A. I believe that anyone from that perspective, including, quite frankly, the Federal Circuit, if you're doing a full-blown infringement analysis need to have an actual device in front of you to compare, under the law.

Q. When you formed your opinion you did not know whether or not the JEDEC standard for SDRAM required the device to have a programmable CAS latency feature; is that right?

A. I remember you talking about this in our deposition. When you talk about "required."

The standard discloses the feature you're talking about, and whether that means that anybody building a DRAM is required to put that in, I guess that's where we were having a little trouble. So if that's the essence -- it's the question about required, that I'm not sure.

To answer your question, it's there, it's part of the standard. You're going to build it and go ahead and do that using that standard, yes.

Q. But when you formed your opinion you weren't sure whether anyone building a JEDEC compliant SDRAM

had to put in CAS latency feature in order to be JEDEC compliant; is that right?

A. Yes. Yes.

Q. And you did not know whether the JEDEC standard for SDRAMs required the use of a register to store the programmable CAS latency information; did you?

A. There were disclosures of these things in the standards. The standards disclosed a lot of things. To the extent of which one or more or all a manufacturer of a DRAM had to put in to meet the standards, I thought that's what we were talking about. That, I don't know.

Q. Well, to analyze whether it's possible to build a JEDEC compliant SDRAM that does not have the programmable CAS latency feature you would need the assistance of a technical person; is that right?

A. I'm sorry. Say that again.

Q. To analyze whether it's possible to build a JEDEC compliant SDRAM that does not have a programmable CAS latency feature, you would need the assistance of a technical expert; is that right?

A. Yes. Yes. Now you're talking about actually building a device as opposed to doing some legal analysis that involves technology, yes.

Q. I'm actually asking you whether for you to

analyze whether it's possible to build a JEDEC compliant SDRAM that does not have a programmable CAS latency feature you would need the assistance of a technical person?

A. Yes.

Q. Now, when you formed your opinion regarding whether claims cited by Complaint Counsel would necessarily be infringed, you didn't know whether the JEDEC standard for SDRAMs requires that the DRAM device have a programmable burst length feature; is that right?

A. In the context that we're talking about the feature was there. Whether a particular device required it, no, I didn't know that.

Q. And you didn't know whether for an SDRAM to comply with the JEDEC standard it would have to have a mode register for implementing the programmable burst length feature; did you?

A. Again, in the sense you're using the term, "required," that's true, yes.

Q. Claims are to be interpreted as they would be understood by a person of ordinary skill in the art; is that right?

A. Yes.

Q. And you did not discuss your claim

interpretation of these pending claims with any person you considered to be a person of ordinary skill in the art; did you?

A. That's correct.

Q. I would like to ask you now to turn to CX 1504, page 221, and I'll try to use the exhibits that are in the binder in front of you.

Now, that particular exhibit would be in Volume 2, and it appears to be the first tab.

A. Okay.

Q. If you'll just turn to what is the first page behind the tab, and there you'll see the amendment filed on January 6, 1995; is that right?

A. Yes. Page 216 of the exhibit.

Q. Now, I believe you testified that you interpreted the claims filed in this amendment to be limited to a device identification feature; is that right?

A. When did I do that?

Q. Actually I probably -- let me restate, because I think I might have misstated your testimony. Let me rephrase that.

The claims that you discussed that were filed in this amendment and so, therefore, I don't mean all of the claims in the amendment, but the claims you

discuss you interpreted to be limited to a device identifier feature; is that right?

A. This morning?

Q. I misstated it again.

You interpreted the claims you discussed this morning to include a limitation to a device identifier feature; is that right?

A. I believe with respect to these claims in this morning's testimony, if this is the set we're talking about, it was that the Federal Circuit had said they didn't read on the standards. Is that? You have to be very clear about the claims we're talking about when we go through this. Is this the set of claims we're talking about?

Q. If you'll look, please, at the serial number on the front page of this amendment it bears serial number 07/847961; right?

A. Right. It would help me if I go through -- if we're going to talk about that if I can go back to the demonstratives this morning.

Q. Sure. That would be great.

A. I'm looking at page 216 of the exhibit which is the application serial number, last three digits are the '961 application, and that's what is addressed in the demonstrative this morning, these claims that were

in the '961 application, and what I testified this morning was the Federal Circuit found that they were not -- that the -- had determined these claims did not cover devices built to the SDRAM standard. That's what I said this morning.

Q. And do you recall the reason that the Federal Circuit made the statement that you're talking about right now?

A. Yes.

Q. And was that reason that the court said that the claims of the '961 application all contained a limitation to a device identifier feature?

A. I think it was a little broader in their term. If you want to take me to the actual language, but I think they said something the claims in that application relate to device identifier feature or something to that extent.

Q. Let's look at the language and make sure we're all clear. You can find the Federal Circuit opinion at two tabs back, RX 2111, and particularly --

A. Is that in Volume 1?

Q. I'm sorry, it's in the same volume you have right now, Volume 2. Particularly I'll direct your attention to page 34 of the opinion.

A. Okay. Uh-huh.

the very top, the sentence starts on the previous page, they mention the '961 application.

Q. Are you relying on any other statement in the Federal Circuit opinion regarding the claims in the '961 application to support your opinion that the Federal Circuit considered the '961 application and determined that the claims do not cover devices built to the SDRAM standard?

A. Not the purpose of this -- no. No.

Q. Now, isn't it true that Infinion never directly addressed Rambus's assertions before the Federal Circuit that the claims of the '961 application contained limitations to a device identifier feature?

A. I didn't read the -- unless there is some statement in the Federal Circuit opinion about that I didn't read the briefs or trial transcript or anything relating to what the arguments were.

Q. All right. If I could direct your attention, please, to page 35 of this opinion, and particularly the last five lines. The sentence begins, "despite Rambus's repeated assertions"?

A. Yes.

Q. The sentence states: "Despite Rambus' repeated assertions, e.g., its renewed JMOL motion, its opening brief to this court, and at panel hearing before this

indicates to you, Mr. Fliesler, that the court did not have information presented to it in reaching its decision that the '961 application claims were not limited to the device identifier feature.

A. No. It just says -- that sentence just says -- I read that and understand that to mean that the court said Infinion didn't directly address the arguments. I don't know that there's not underlying evidence.

JUDGE McGUIRE: That speaks for itself. That's why I don't know what you're headed toward here. Are you asking him his understanding of the opinion?

MS. MICHEL: Yes, Your Honor. I'm probing him for the fact that he relied on it that --

JUDGE McGUIRE: You're asking for the court opinion. It speaks for himself. If you want to ask him overall his understanding and what basis, but I don't know going through this sentence is --

BY MS. MICHEL:

Q. Mr. Fliesler, I would like to direct you back to CX 1504, which is the first tab in your binder, which is what we were just looking at?

A. Okay.

Q. In particular I would like to direct you to page, let's see, it's page 222, and to Claims 61 and to 62?

A. Yes.
Q. Claim 61 recites an identification --
A. I'm sorry, 151 or 161?
Q. Claim 161, which is on page 222 of CX 1504.
A. Okay.
Q. Now, Claim 161 contains the limitation and identification register; does it not?
A. Yes.
Q. And Claim 161 is dependent on Claim 160; is that correct?
A. Yes.
Q. And Claim 160 does not contain the term, "an identification register;" correct?
A. That's correct.
Q. And Claim 161 is a claim dependent from 160, would be understood to be adding limitations to Claim 160; is that right?
A. As a proper dependent claim, yes.
Q. I would like to direct your attention to Claim 164, next, which is on page 223 of CX 1504.
A. Okay.
Q. Have you formed any opinion as to whether Claim 164 is limited to a device identification feature?
A. To the extent, again, the Federal Circuit, I

believe, covered that particular claim as well in the statements we just talked about. So my opinion is based on what the Federal Circuit said.

similar in pertinent respects to claims in the '961 application."

That's just to orient you as to what your previous testimony was to help you refresh your recollection.

BY MS. MICHEL.

Q. Is your opinion that Claims 183 to 185, as they issued, do not cover devices built to the SDRAM standard based on the Federal Circuit's decision with regards to claim '961?

A. Not based in the same way that it is with the '961. I don't believe they opined on 183, 184, and 185.

Q. You're relying on the similarities between Claims 183 and 185 and the claims in the '961 application and the fact that the Federal Circuit indicated the claims in the '961 application don't cover SDRAMs for your opinion today about Claims 183 to 185; is that right?

A. I'm not sure I can answer yes or no to that.

The Federal Circuit opined in the '961 that they don't read on because the claims there relate to a device identifier feature. And when you get to Claims 183 and 185, I believe they specified, there is specific language in there about device identifying

cover devices built to the SDRAM standard.

So this demonstrative, it doesn't reference the Federal Circuit opinion in the sense that the previous demonstrative did.

Q. Okay. I would like to ask you now to turn to CX 1502, and I believe that should also be in binder number 2.

A. Please give that to me again.

Q. CX 1502. And I'm looking for the early version of Claim 151 of the '692 application, which I believe will be in the first tab labeled CX 1502, bearing page numbers 205 to 213.

A. Yes, I have that.

Q. And in particular you offered testimony with regard to Claim 151, which is on page 208 of that exhibit; is that right?

A. Yes.

Q. And with regard to the NEC presentation with the PLL your testimony was that this claim would not cover an SDRAM implementing that presentation, because that presentation did not perform -- did not have a phase locked loop coupled to the memory array; correct?

A. That was one of the reasons.

Q. Because the phase locked loop was -- there was a line going to the output buffer; is that right?

A. Whether it was -- it wasn't so much the emphasis on the phase lock loop, it was that that element was coupled to the clock signal receiving circuit and the memory array. The signal was coupled to the memory array. The circuit is coupled to the memory array.

Q. If you could turn, please, to JX 21 and page 91, and if we could show that on the screen, that's the drawing from the NEC presentation. There's also a tab in your binder.

A. I think I'm okay if you just put it up on the screen.

Q. Sure.

A. Okay.

Q. With regard to the drawing there with PLL, in a read operation when the SDRAM shown there outputs data it is going to output data that had previously been stored in the memory array; is that right?

A. That's the inference from that schematic, yes.

Q. And the SDRAM uses the output buffer to output data that had been previously stored in the memory array; is that right?

A. Yes.

Q. All right. Next I would like to ask you to look at Claim 1 of the '327 patent.

For convenience I'm trying to work with the binder, but I'm not quite as familiar with it. Is the '327 patent in the binder, may I ask opposing counsel?

MR. STONE: You certainly can. It is CX 1904.

BY MS. MICHEL:

Q. In Volume 2 of the binder, CX 1994 is the CX patent that you testified about earlier; is that right?

A. Yes.

Q. Looking at Claim 1, I believe you testified

clocks. Clocks are the fundamental signal component that sequences things through, so clocks are clocks.

Q. Solely for purposes of interpreting the term, "clock," as it's used in Claim 1, you did not discuss how the term clock is used in term 1 with any technical person; is that right?

A. That's correct.

Q. Let me ask you to look at Claim 7, the next column. I believe your testimony there is you do not believe a DDR SDRAM made to the standard would infringe Claim 7, because the standard did not require a multiplexer; is that right?

A. That's correct.

Q. Did you consider whether or not the use of a multiplexer was the most feasible way to implement the requirements of the standard?

A. No.

Q. Did you consider whether or not there were any methods of implementing the DDR standard without the use of a multiplexer?

A. Going through the analysis, yes.

Q. Did you talk with any technical people about whether or not it was possible to implement the DDR standard without the use of a multiplexer?

A. I did not talk to any technical people, no.

Q. I'm going to ask you now to turn to Claim 405. I believe it's also in the same binder.

I meant patent '405. RX 2122-15.

A. Thank you.

Q. Now, do you know whether or not Rambus has asserted that any DDR SDRAMs infringe Claim 1 of the '405 patent?

A. Asserted in their litigation? No, I don't know.

Q. And you didn't discuss with any technical person whether a DDR SDRAM --

A. I mean there are other assertions like licensing and things like that. I don't know if they're seeking to enforce that claim.

Q. I understand. And you don't know whether Rambus has made any assertions in licensing or any other way as to whether or not claim 405 would cover DDR SDRAM; do you?

A. No.

Q. You didn't analyze the validity of the '405 patent; did you?

A. Only to the extent that I looked at the -- on the first few pages a huge amount of prior art. I looked at, as I testified earlier, the substantive prosecution of the chains of applications that led to

A. Yes.

Q. Did you do any investigations into or review any documents showing any JEDEC considerations of the auto precharge feature prior to June 1996?

A. It's the prior to 1996 that -- lots of JEDEC documents. There was auto precharge that was described. Here today I'm trying to think of the actual document or documents when auto precharge started to appear.

Q. From the documents that you reviewed you believe there was some discussion of auto precharge within JEDEC prior to June 1996; is that right?

A. I can't say prior to 1996, but definitely there was auto precharge.

Q. Okay. If I could have you look at JX 56, please?

MS. MICHEL: Your Honor, may I approach?

JUDGE McGUIRE: Yes.

BY MS. MICHEL:

Q. Mr. Fliesler, do you recognize this document?

A. Yes.

Q. Did you review it in the course of preparing your report?

A. Yes.

Q. And --

A. Portions of it.

Q. Okay. If I could ask you to turn to page 115 of the exhibit numbers.

A. Page -- hold it. Page 115. I see. It's cut off at the bottom. Okay. I believe I have it, yes.

Q. Mr. Fliesler. Earlier Ms. Michel asked you some questions about what the JEDEC standard required or didn't require. Do you recall that line of questioning?

A. Yes.

Q. For the purposes of the opinions you've expressed here today have you assumed that the four features in question are -- must be included in a JEDEC compliant part?

A. Yes.

Q. I want to take you back to Volume 1, if I can. I apologize. I'm going to try not to jump too much in the volumes.

Go back to Volume 1 binder, go to the '898 application, which is CX 1451, if you would.

A. I have it.

Q. And turn to page 13 of CX 1451.

Do you recall Ms. Michel asked you about the last full sentence on that page which reads: "The bus carries substantially all address, data, and control information needed by devices for communications with other devices on the bus"?

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information," as it's written there imply that multiplexing is necessary?

A. No, not that sentence, no.

Q. Okay. While we're on this document let me ask you if you would turn to page 16, if you would.

And you'll see on page 16 of CX 1451, beginning at line 21 there's a sentence which reads: "Each slave may have one or several access time registers (four in a preferred embodiment)." Do you see that language?

A. Yes.

Q. In the event where the slave has only one access time register are you able to change the access time or the CAS latency each time there's a transaction?

A. No. It's done basically on initialization.

Q. Okay. Is there -- you were asked earlier about foreign applications and some issues about the implications with respect to foreign applications. Let me just take you back there for a minute.

A. Sure.

Q. Is there a difference in terms of your understanding between what would happen with respect to countries where the -- they have adopted the patent cooperation treaty, as opposed to countries which have not?

A. Yes.

Q. So when some of your deposition testimony was read compared to your testimony here at trial, was there a difference how you would answer if the question was limited to the PCT countries, as opposed to all foreign countries?

A. Yes.

Q. Does the specification of the '898 application that we've been looking at, CX 1451, indicate that Rambus had invented the use of a register to store a value representative -- representative of a number of clock cycles to transpire between receipt of a read request and output of data?

A. Yes.

Q. Is that your understanding of CAS latency, or is your understanding of CAS latency different?

A. Fundamentally, that's it.

Q. Okay. Turn if you would to the table we looked at in this exhibit that you were shown on cross examination, I believe it's at page 29 of CX 1451.

A. Okay.

Q. Does the access type indicate which of the access time registers you will use for your response?

A. Yes.

turn to page 104 of CX 1451. Tell me when you're there.

A. I'm there.

Q. Does that set forth Claim 103?

A. Yes.

Q. Now, let me ask --

Q. Let me ask you to do one more flipping at the moment, which is flip back to one of the documents towards the back of the binder, RX 2213A.

A. Okay.

Q. Let me direct you to page 5.

A. Yes.

Q. Do you see a reference in the left-hand column to 103?

A. Yes.

Q. Do you see written in English on the right-hand side the word "latency"?

A. Yes.

Q. Now, turn if you would to page 27 of the same document. Page 27 of RX 2213A.

A. Sure. Okay.

Q. Do you see there the translation where it says "103"?

A. Yes.

Q. And the translation is similar to SDRAM latency control?

A. Yes.

Q. Do you understand SDRAM latency control to be programmable CAS latency or something else?

A. No, that.

Q. Excuse me?

A. Programmable CAS latency.

Q. Okay. Is there in the law a presumption of validity that attaches to patents?

A. Yes.

Q. Can you explain to us just briefly what that presumption is?

A. Well, by statute, any patentee has the presumption of validity, which is just that, presumption of validity. It basically is a burden shifting mechanism whereby it's the person asserting invalidity that has the duty to move forward and try to show invalidity.

Q. In connection with what you reviewed in the Infinion case in the Federal Circuit, did you look at all at the Infinion Petition for Rehearing?

A. No.

Q. You don't know what it says in there about the '961 application?

A. No.

Q. Okay. Let me direct you back to the second binder, JX 21, at page 91.

A. Can you give me that again?

Q. Yes. JX 21, page 91. We can bring that chart up on the screen.

A. Okay.

Q. You may be able to see it there.

A. I have it. NEC. Sure.

Q. Looking at just the right half of this screen, where we see this signal that has gone through the box labeled "PLL;" do you see that?

A. Yes.

Q. And the signal then comes into the triangular shaped object which I think you told us earlier was a buffer?

A. An output buffer.

Q. As you understand this particular diagram can the signal that comes from the PLL affect the timing of anything within the memory array?

A. No.

MR. STONE: I have no further questions on redirect, Your Honor. Thank you.

JUDGE McGUIRE: Recross?

MS. MICHEL: No further questions, Your Honor.

JUDGE McGUIRE: Okay. Thank you very much for your testimony. You're excused from this proceeding.

Mr. Stone, I'm hopeful that concludes your presentation for today.

MR. STONE: It does.

JUDGE McGUIRE: Here's some hard copy up here counsel might want to pick up. Otherwise this hearing

is adjourned until 9:30 tomorrow morning.

MR. STONE: Thank you.

(Hearing adjourned at 4:10 p.m.)

C E R T I F I C A T E O F R E P O R T E R

DOCKET/FILE NUMBER: 9302

CASE TITLE: IN THE MATTER OF RAMBUS

HEARING DATE: JULY 15, 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 to the best of my knowledge and belief.

Dated:

_____

Paula G. Satkin, RPR