

1 UNITED STATES DISTRICT COURT
2 NORTHERN DISTRICT OF CALIFORNIA

3 SAN JOSE DIVISION

4 **COPY**

5 HYNIX SEMICONDUCTOR INC.,) C-00-20905 RMW
6 HYNIX SEMICONDUCTOR)
7 AMERICA INC., HYNIX) SAN JOSE, CALIFORNIA
8 SEMICONDUCTOR U.K. LTD.,)
9 AND HYNIX SEMICONDUCTOR) MARCH 23, 2004
10 DEUTSCHLAND GMBH,)
11) PAGES 1-120
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TRANSCRIPT OF PROCEEDINGS
BEFORE THE HONORABLE RONALD M. WHYTE
UNITED STATES DISTRICT JUDGE

16 A P P E A R A N C E S:

17 FOR THE PLAINTIFF: TOWNSEND & TOWNSEND & CREW
18 BY: THEODORE G. BROWN, III AND
19 JORDAN TREND JONES
379 LYTTON AVENUE
PALO ALTO, CALIFORNIA 94301

20 THELEN, REID & PRIEST
21 BY: KENNETH L. NISSLY
22 225 WEST SANTA CLARA STREET
SUITE 1200
SAN JOSE, CALIFORNIA 95113

23 ALSO PRESENT: DAVID L. TAYLOR

24 APPEARANCES CONTINUED ON NEXT PAGE

25 OFFICIAL COURT REPORTER: LEE-ANNE SHORTRIDGE, CSR, CRP
CERTIFICATE NUMBER 9595

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APPEARANCES (CONTINUED)

FOR THE DEFENDANT: MUNGER, TOLLES & OLSON
BY: PETER A. DETRE,
GREGORY P. STONE AND
JENNIFER L. POLSE
33 NEW MONTGOMERY STREET
NINETEENTH FLOOR
SAN FRANCISCO, CALIFORNIA 94105

RAMBUS, INC.
PAUL M. ANDERSON, PATENT COUNSEL
4440 EL CAMINO REAL
LOS ALTOS, CALIFORNIA 94022

ALSO PRESENT: ROBERT J. MURPHY

1 SAN JOSE, CALIFORNIA

MARCH 23, 2004

2 P R O C E E D I N G S

3 (WHEREUPON, COURT CONVENED AND THE
4 FOLLOWING PROCEEDINGS WERE HELD:)

5 THE CLERK: CALLING CASE C-00-20905,
6 HYNIX SEMICONDUCTOR VERSUS RAMBUS, ON FOR CLAIMS
7 CONSTRUCTION HEARING.

8 COUNSEL, STATE YOUR NAME FOR THE RECORD,
9 PLEASE.

10 MR. BROWN: GOOD AFTERNOON, YOUR HONOR.

11 THEODORE BROWN FROM TOWNSEND & TOWNSEND &
12 CREW FOR THE PLAINTIFFS.

13 WITH ME IS JORDAN JONES, ALSO FROM
14 TOWNSEND, AND KEN NISSLY FROM THELEN, REID &
15 PRIEST.

16 AND I FORGOT LAST TIME. MR. DAVID
17 TAYLOR, OUR EXPERT, IS SITTING BEHIND THE BAR.

18 THE COURT: ALL RIGHT. THANK YOU.

19 MR. DETRE: GOOD AFTERNOON, YOUR HONOR.

20 PETER DETRE FROM MUNGER, TOLLER & OLSON
21 FOR RAMBUS, AND WITH ME ARE GREG STONE FROM MUNGER,
22 TOLLER; PAUL ANDERSON FROM RAMBUS; JENNIFER POLSE
23 FROM MUNGER, TOLLES; AND ROBERT MADERO, WHO'S GOING
24 TO BE OPERATING THE GRAPHICS WITH OUR FIRM.

25 AND MR. MURPHY, OUR EXPERT, IS IN THE

1 AUDIENCE.

2 THE COURT: ALL RIGHT. EVERYBODY ALL
3 SET? I GUESS YOU'VE BEEN WAITING ON ME.

4 ALL RIGHT. I THINK HOW WE DECIDED TO
5 PROCEED WAS THAT BASICALLY THE ATTORNEYS WERE GOING
6 TO MAKE THE PRESENTATIONS, BUT THE EXPERTS WERE
7 GOING TO BE AVAILABLE SHOULD WE WANT TO SPEAK WITH
8 THEM.

9 IS THAT HOW YOU PLANNED IT?

10 MR. BROWN: YES, YOUR HONOR, PARTICULARLY
11 IF YOU WANTED TO SPEAK WITH EITHER OF THEM.

12 THE COURT: RIGHT. AND I THINK TO THE
13 EXTENT IT MAKES SENSE, THAT WE SHOULD GO TERM BY
14 TERM, OR --

15 MR. BROWN: THAT'S WHAT --

16 THE COURT: -- LANGUAGE BY LANGUAGE.

17 MR. BROWN: WE AGREE TO TERM BY TERM, AND
18 ACTUALLY, MR. DETRE AND I DISCUSSED THE ORDER OF
19 THE TERMS --

20 THE COURT: OKAY.

21 MR. BROWN: -- THAT WE WOULD DISCUSS. WE
22 CAME TO AN AGREEMENT ON THAT.

23 AND WE'LL DO THE DEVICE TERMS FIRST, OR
24 WHAT WE HAD IN MIND WAS DOING THE DEVICE TERMS
25 FIRST, FOLLOWED BY -- WELL, SYNCHRONOUS MEMORY

1 DEVICE, THEN FIRST AND SECOND EXTERNAL CLOCKS.

2 AM I RIGHT SO FAR?

3 MR. DETRE: YES.

4 MR. BROWN: THEN OPERATION CODE.

5 MR. DETRE: I ACTUALLY HAD BLOCK SIZE.

6 MR. BROWN: ALL RIGHT. WE'LL DO BLOCK
7 SIZE INFORMATION, AND WE'LL FIGURE OUT THE ORDER OF
8 THE TERMS AS WE GO ALONG.

9 THE ONE OTHER THING IS WHEN MR. DETRE AND
10 I TALKED, WE AGREED THAT PLAINTIFFS WOULD GO FIRST
11 ON EACH OF THE TERMS.

12 HOWEVER, SINCE WE HAVE YOUR TENTATIVE
13 CONSTRUCTIONS, WE THINK THAT PROBABLY THE PARTY
14 WHERE IT LOOKS LIKE YOU ARE TENTATIVELY RULING
15 AGAINST SHOULD GO FIRST.

16 THE COURT: OKAY. THAT'S FINE.

17 MR. BROWN: OKAY.

18 THE COURT: SO YOU WANT TO START WITH
19 DEVICE?

20 MR. BROWN: YES, WE DO WANT TO START WITH
21 DEVICE, YOUR HONOR.

22 THE COURT: OKAY.

23 MR. BROWN: AND I WILL DISCUSS "DEVICE"
24 AND "INTEGRATED CIRCUIT DEVICE" BASICALLY TOGETHER
25 BECAUSE I'M NOT SURE THEY NEED TO BE SEPARATELY

1 DISCUSSED.

2 WE JUST CHOSE "DEVICE" AS SORT OF THE
3 LOWEST COMMON DENOMINATOR OF THE VARIOUS DEVICE
4 TERMS WHICH ARE USED IN THE CLAIMS, AND RAMBUS
5 STARTED WITH "INTEGRATED CIRCUIT DEVICE."

6 WE RECOGNIZE, PLAINTIFFS RECOGNIZE, THAT
7 PARTICULARLY WITH "DEVICE" AND "INTEGRATED CIRCUIT
8 DEVICE," THAT WE ARE -- THAT YOU WILL NOT BE
9 WRITING ON AN ENTIRELY CLEAN SLATE.

10 THE FEDERAL CIRCUIT DECISION IN RAMBUS
11 VERSUS INFINEON HAS A POTENTIAL BEARING ON THIS
12 CASE IN TWO DIFFERENT AREAS.

13 ONE OF THOSE IS WITH RESPECT TO THE TERM
14 "INTEGRATED CIRCUIT DEVICE," AND ONE OF THOSE IS
15 WITH JUST THE "DEVICE" PART OF THAT TERM.

16 AND WE ALSO RECOGNIZE THAT UNDER THE,
17 CERTAINLY THE SUPREME COURT DECISION IN MARKMAN,
18 THAT CLAIMS CONSTRUCTIONS FROM THE FEDERAL CIRCUIT
19 AND FROM OTHER COURTS ARE ENTITLED TO STARE DECISIS
20 OF FACT.

21 THE PRONOUNCEMENTS, OR THE STATEMENTS OF
22 THE FEDERAL CIRCUIT ARE NOT BINDING ON HYNIX IN A
23 COLLATERAL ESTOPPEL SENSE.

24 SINCE RAMBUS WAS A PARTY TO, TO THAT
25 ACTION, WHAT THE FEDERAL CIRCUIT SAYS IS BINDING ON

1 RAMBUS.

2 THE COURT: RIGHT.

3 MR. BROWN: SO THAT WHAT WE HAVE TO DEAL
4 WITH HERE IS THE STARE DECISIS EFFECT OF THAT
5 DECISION.

6 NOW, ONE -- AS I SAID, THERE ARE TWO
7 AREAS WHERE THERE'S A POTENTIAL BEARING ON THIS
8 CASE.

9 ONE IS ON THE TERM "INTEGRATED CIRCUIT
10 DEVICE," AND THE FEDERAL CIRCUIT DID ANNOUNCE THE
11 DEFINITION, OR A CONSTRUCTION OF INTEGRATED CIRCUIT
12 DEVICE THAT BASICALLY TRACKS EXACTLY WHAT IS IN
13 YOUR TENTATIVE HERE.

14 THAT IS, IT'S A CIRCUIT CONSTRUCTED ON A
15 SINGLE MONOLITHIC SUBSTRATE COMMONLY CALLED A CHIP,
16 AND THAT WAS RAMBUS'S PROPOSED CONSTRUCTION BEFORE
17 THE EASTERN DISTRICT OF VIRGINIA COURT AS IT WAS
18 BEFORE THE FEDERAL CIRCUIT, AND IT IS IN THIS CASE.

19 HOWEVER, THE FEDERAL CIRCUIT'S DECISION
20 ON INTEGRATED CIRCUIT DEVICE IS DICTUM. IT IS NOT
21 SOMETHING -- WE HAVE A DIFFERENT ISSUE THAT IS FOR
22 DECISION HERE WITH RESPECT TO INTEGRATED CIRCUIT
23 DEVICE.

24 THE ONLY ISSUE THAT WAS BEFORE THE
25 FEDERAL CIRCUIT WAS WHETHER OR NOT CLAIM 26 OF THE

1 RAMBUS '804 PATENT REQUIRED AN IDENTIFICATION
2 REGISTER.

3 ALL THE OTHER CLAIMS IN THE '804 PATENT
4 SPECIFICALLY REQUIRED AN IDENTIFICATION REGISTER,
5 AND INFINION ARGUED IN THAT CASE THAT BECAUSE OF
6 STATEMENTS IN THE PROSECUTION HISTORY OF THAT
7 PARTICULAR, OF THE FILE HISTORY FOR THAT PARTICULAR
8 PATENT, THAT CLAIM 26 ALSO REQUIRED AN
9 IDENTIFICATION REGISTER.

10 AND THE FEDERAL CIRCUIT REVERSED ON THAT
11 POINT AND SAID THAT SINCE IT WAS NOT IN THE PLAIN
12 TERMS OF CLAIM 26 OF THE '804 PATENT, IT WAS -- AN
13 IDENTIFICATION REGISTER WAS NOT REQUIRED IN THE, IN
14 THAT CLAIM.

15 NOW, THAT'S NOT AN ISSUE HERE WITH
16 RESPECT TO THE DEFINITION OF INTEGRATED CIRCUIT
17 DEVICE. TAKE ASIDE THE, THE ADDITIONAL DEVICE PART
18 OF THAT TERM.

19 WHAT'S AT ISSUE HERE IS WHETHER AN
20 INTEGRATED CIRCUIT DEVICE IS ONE DEVICE OR WHETHER
21 IT CAN BE MULTIPLE CHIPS; THAT IS, WHETHER IT'S
22 REQUIRED TO BE ONE CHIP OR WHETHER IT CAN BE
23 MULTIPLE CHIPS.

24 AND THAT'S AN ISSUE THAT WAS NOT DECIDED
25 BY THE FEDERAL CIRCUIT, AND ANYTHING TO THE

1 CONTRARY THAT'S IN THE FEDERAL CIRCUIT'S OPINION IS
2 DICTUM.

3 IT'S ALSO INTERESTING TO NOTE HERE THAT
4 CLAIM 26 -- THE '804 PATENT IS ONE OF THE 15
5 PATENTS-IN-SUIT.

6 CLAIM 26, WHICH IS WHAT THE FEDERAL
7 CIRCUIT INTERPRETED, IS NOT ONE OF THE ASSERTED
8 CLAIMS IN THIS PATENT.

9 IN FACT, THERE ARE NO ASSERTED CLAIMS, OR
10 NO CLAIMS THAT ARE AMONG THE REPRESENTATIVE CLAIMS
11 THAT RAMBUS HAS CHOSEN TO GO TO, OR THROUGH THE
12 PRETRIAL ON.

13 THERE ARE NO CLAIMS OUT OF THE '804
14 PATENT THAT HAVE BEEN, THAT HAVE ACTUALLY, THAT
15 HAVE BEEN ASSERTED, SO WE'RE NOT QUITE SURE WHAT
16 THE STATUS OF THAT PATENT IS.

17 HOWEVER, AS WE'LL SEE IN A MINUTE, WE
18 BELIEVE THAT THE PLAIN TERM OF THE TERM "INTEGRATED
19 CIRCUIT DEVICE," AS WELL AS THE INTRINSIC EVIDENCE,
20 DICTATES THAT AN INTEGRATED CIRCUIT DEVICE COULD BE
21 MORE THAN JUST A SINGLE CHIP. THAT IS, YOU COULD
22 HAVE MULTIPLE CHIPS OPERATING TOGETHER AS WE'VE
23 PROPOSED.

24 THE SECOND AREA WHERE -- THE SECOND AREA
25 WHERE THE FEDERAL CIRCUIT DECISION IN INFINEON HAS

1 SOME, POTENTIALLY HAS SOME BEARING ON THE ISSUES TO
2 BE DECIDED IN THIS CASE IS THE FEDERAL CIRCUIT'S
3 DECISION ON THE INTERPRETATION OF THE TERM "BUS."

4 NOW, THE FEDERAL CIRCUIT DECIDED, UNDER
5 THE PLAIN MEANING, UNDER THE VERY PLAIN MEANING,
6 THAT "BUS" MEANT BASICALLY A SET OF SIGNAL WIRES
7 FOR COMMUNICATION BETWEEN DEVICES.

8 NOW, I'M NOT QUOTING THAT DIRECTLY
9 BECAUSE I DON'T HAVE THE LANGUAGE IN FRONT OF ME,
10 BUT BASICALLY THEY'RE SAYING THAT THE BUS HAS NO
11 SPECIAL REQUIREMENTS.

12 IN THIS CASE, WE ARE NOT ASKING THE COURT
13 TO CONSTRUE THE TERM "BUS."

14 RATHER, WE'RE ASKING THE COURT TO
15 CONSTRUE "DEVICE." IF IT IS -- IF WE DO IT IN
16 TERMS OF AN INTEGRATED CIRCUIT DEVICE RATHER THAN
17 JUST A DEVICE BY ITSELF, BASICALLY WE WOULD SAY
18 THAT AN INTEGRATED CIRCUIT DEVICE IS ONE OR MORE
19 CHIPS IN A UNIT WITH A SINGLE SET OF LINES OF,
20 SIGNAL LINES FOR CARRYING SUBSTANTIALLY ALL
21 ADDRESS, DATA AND CONTROL IN WHICH THE NUMBER OF
22 BITS IN AN ADDRESS IS SUBSTANTIALLY GREATER THAN
23 THE NUMBER OF LINES IN THE BUS.

24 SO THAT'S HOW WE WOULD DEFINE AN
25 INTEGRATED CIRCUIT, AS HAVING, AS A DEVICE THAT HAS

1 A PARTICULAR KIND OF AN INTERFACE.

2 AND THAT IS FACTUALLY DISTINGUISHABLE
3 FROM THE QUESTION THAT WAS BEFORE THE FEDERAL
4 CIRCUIT.

5 THERE ARE NUMEROUS PLACES IN THE
6 INTRINSIC EVIDENCE, IN THE PATENT SPECIFICATION
7 ITSELF, WHERE THE SPECIFICATION IS VERY SPECIFIC
8 ABOUT HOW THE DEVICE MUST BE MODIFIED IN ORDER TO
9 HAVE A PARTICULAR INTERFACE, AND THOSE
10 MODIFICATIONS ARE OVER THE CONVENTIONAL, FOR
11 EXAMPLE, DRAM DEVICES OR OTHER KINDS OF DEVICES.

12 NOW, THIRD, AS YOUR HONOR IS UNDOUBTEDLY
13 AWARE, OVER THE PAST TWO YEARS, OR PERHAPS MORE
14 THAN TWO YEARS, LET'S SAY THE FEDERAL CIRCUIT'S
15 JURISPRUDENCE ON CLAIM CONSTRUCTION LAW HAS BEEN
16 SHIFTING, AND THERE ARE A NUMBER OF --

17 THE COURT: I'VE NEVER HEARD ANYBODY SAY
18 THAT BEFORE.

19 MR. BROWN: WELL, AS FAR AS I CAN TELL,
20 IT IS.

21 THE COURT: I WAS BEING FACETIOUS.

22 MR. BROWN: I UNDERSTAND THAT. SO WAS I.

23 AND THE RAMBUS V. INFINEON CASE WAS, I
24 MEAN, IN THE GRAND SCHEME OF THINGS, WAS DECIDED
25 RELATIVELY RECENTLY. IT WAS DECIDED IN JANUARY OF

1 2003.

2 BUT THAT'S ALMOST -- THAT'S ALMOST AN
3 ETERNITY AS FAR AS I CAN TELL IN TERMS OF THE
4 FEDERAL CIRCUIT LAW ON CLAIM CONSTRUCTION, AND
5 THERE ARE AT LEAST TWO CASES WHICH I WANT TO
6 SPECIFICALLY BRING TO THE COURT'S ATTENTION SINCE
7 THE INFINEON CASE WHICH, I THINK, INDICATE A SHIFT
8 BACK FROM THE PLAIN MEANING RULE TO AN INCREASED
9 IMPORTANCE, AT LEAST IN CERTAIN KINDS OF STATEMENTS
10 THAT ARE IN THE INTRINSIC EVIDENCE, AND
11 PARTICULARLY THE SPECIFICATION.

12 THE FIRST OF THOSE IS IN ALLOC V.
13 INTERNATIONAL TRADE COMMISSION, WHICH WE HAVE
14 CITED, BUT FOR THE RECORD, IT'S AT 342 F.3D 1361.

15 AND THAT CASE DEALT WITH A FLOORING
16 SYSTEM, AND A FLOORING SYSTEM IN WHICH BASICALLY I
17 THINK IT WAS A SERIES OF TILES THAT YOU COULD SET
18 DOWN ON A FLOOR TO CREATE A FLOOR.

19 AND THESE TILES, THE PANELS OF THE FLOOR
20 HAD INTERLOCKING, WERE INTERLOCKING, OKAY, SO THAT
21 THEY DIDN'T SHIFT THAT MUCH WHEN YOU LAID THEM DOWN
22 AS A FLOOR.

23 NOW, THE ISSUE THERE WAS WHETHER OR NOT
24 AN INFRINGING, OR AN ACCUSED FLOORING SYSTEM DID OR
25 DID NOT INFRINGE BECAUSE IT DID NOT HAVE PLAY IN

1 THE INTERLOCKING MECHANISM BETWEEN THE TILES OF THE
2 DIFFERENT, OF THE FLOORING SYSTEM.

3 AND THE TERM "PLAY" WAS NOT PRESENT IN
4 ANY OF THE CLAIMS THAT WERE ASSERTED.

5 HOWEVER, THE FEDERAL CIRCUIT -- AND
6 ACTUALLY, THIS OPINION IS WRITTEN BY JUDGE RADER,
7 WHO IS THE SAME, THE SAME JUDGE THAT WROTE THE
8 MAJORITY OPINION IN THE RAMBUS V. INFINEON CASE.

9 AND FIRST HE NOTED THAT THE '907 PATENT
10 SPECIFICATION DESCRIBED, QUOTE, "THE INVENTION,"
11 CLOSED QUOTE, UNDER THE HEADING "TECHNICAL PROBLEMS
12 AND OBJECTS OF THE INVENTION" AS PROVIDING A SYSTEM
13 FOR MAKING A JOINT ALONG ADJACENT EDGES, AND I'M
14 GOING TO SKIP SOME, AND I'M READING FROM PAGES 1368
15 OVER ONTO 1369.

16 AND ON THE NEXT PART, AGAIN AS PART OF
17 THIS DESCRIPTION OF, QUOTE, "THE INVENTION," THE
18 SPECIFICATION, UNDER THE SECTION "TECHNICAL
19 PROBLEMS AND OBJECTS OF THE INVENTION," CONTINUED
20 THAT "FLOOR PANELS CAN OCCUPY RELATIVE POSITION IN
21 SAID SECOND DIRECTION WHERE A PLAY EXISTS BETWEEN
22 THE LOCKING GROOVE AND A LOCKING SURFACE ON A
23 LOCKING ELEMENT."

24 NOW, THE COURT WENT THROUGH A NUMBER OF
25 OTHER PLACES IN THE SPECIFICATION WHERE IT, WHERE

1 THE SPECIFICATION INDICATED THAT PLAY WAS IMPORTANT
2 AND HAD ADVANTAGES AND SO ON, AND ALSO SPECIFICALLY
3 NOTED ON PAGE 13 -- AND THIS IS ON 1369, THAT THE
4 '907 SPECIFICATION FURTHER CRITICIZES PRIOR ART
5 FLOOR SYSTEMS WITHOUT PLAY.

6 THE END RESULT WAS THAT THE FEDERAL
7 CIRCUIT READ THE TERM "PLAY" ESSENTIALLY INTO THE
8 CLAIMS AS BEING PART OF THE INVENTION AND LIMITED
9 THE CLAIMS TO FLOORING SYSTEMS THAT DID NOT HAVE
10 PART -- SORRY -- LIMITED THE CLAIMS TO FLOORING
11 SYSTEMS THAT DID HAVE PLAY AND AS A RESULT AFFIRMED
12 THE DECISION OF THE ITC THAT THERE WAS NO
13 INFRINGEMENT.

14 NOW, A SECOND CASE THAT I'D LIKE TO CALL
15 THE COURT'S ATTENTION TO SPECIFICALLY IS EVEN MORE
16 RECENT, AND IT HAS NOT BEEN PUBLISHED YET, AND THIS
17 WAS ATTACHED TO THE, I THINK TO OUR REPLY BRIEF
18 FILED MARCH 3RD AS EXHIBIT 81 TO THE DECLARATION,
19 THE BROWN DECLARATION.

20 AND THAT CASE, WHICH WAS DECIDED IN EARLY
21 FEBRUARY OF THIS YEAR, 2004, IS MICROSOFT V.
22 MULTITECH SYSTEMS.

23 IN THAT CASE AROSE THE ISSUE, OR ONE OF
24 THE ISSUES TO BE DECIDED WAS WHETHER OR NOT THE
25 PARTICULAR TELEPHONE COMMUNICATION REQUIRED

1 TRANSMISSION OF VOICE AND DATA OVER A PLAIN OLD
2 TELEPHONE WIRE, LIKE A TELEPHONE WIRE THAT, YOU
3 KNOW, THE KIND THAT YOU PLUG INTO THE WALL THAT
4 YOUR TELEPHONE PLUGS INTO.

5 AND THE COURT STATED, AND THIS IS AT PAGE
6 12 OF THE UN, OF THE AS YET UNPUBLISHED DECISION,
7 THAT THE SUMMARY OF THE INVENTION PORTION OF THE
8 SPECIFICATION PORTION STATES THAT "THE CLAIMED
9 PERSONAL COMMUNICATION SYSTEM INCLUDES HARDWARE TO
10 ENABLE VOICE, FAX AND DATA COMMUNICATIONS WITH A
11 REMOTE SITE CONNECTED TO A STANDARD TELEPHONE
12 LINE."

13 THERE ARE -- AND THERE ARE A NUMBER OF
14 OTHER STATEMENTS THAT ARE QUOTED FROM THE
15 SPECIFICATION HERE.

16 THERE IS ALSO SOME INDICATION, OR SOME
17 REFERENCE TO THE LANGUAGE IN THE FILE HISTORY.

18 BUT I'D LIKE -- I'D ALSO LIKE TO
19 EMPHASIZE THAT THE COURT SAID, AND THIS IS ON PAGE
20 13, THAT THOSE STATEMENTS, SOME OF WHICH ARE FOUND
21 IN THE, QUOTE, "SUMMARY OF THE INVENTION," CLOSED
22 QUOTE, PORTION OF THE SPECIFICATION ARE NOT LIMITED
23 TO DESCRIBING A PREFERRED EMBODIMENT, BUT MORE
24 BROADLY CHARACTERIZE THE OVERALL INVENTION OF ALL
25 THREE PATENTS.

1 AND AT LEAST ON THE TELEPHONE LINE ISSUE,
2 THE COURT WENT ON TO AFFIRM THE TRIAL COURT'S
3 HOLDING THAT THE -- SORRY -- THAT THE CLAIMS, EVEN
4 THE CLAIMS THAT DID NOT EXPRESSLY RECITE BASICALLY
5 A PLAIN TELEPHONE LINE DID REQUIRE A PLAIN
6 TELEPHONE LINE.

7 AND THAT IS WITH REGARD TO THE SENDING,
8 TRANSMITTING AND RECEIVING LIMITATIONS. THE
9 DISCUSSION STARTS ON PAGE 8 OF THIS OPINION.

10 THE COURT: OKAY. TELL ME HOW THAT
11 RELATES TO OUR ISSUE.

12 MR. BROWN: I'LL TELL YOU HOW IT RELATES
13 TO OUR ISSUE, AND IF I CAN GET THIS FIRED UP, I CAN
14 -- I WILL -- LET ME SKIP THE FIRST FEW SECTIONS
15 HERE BECAUSE I'M DOING IT -- ALL RIGHT.

16 BECAUSE THIS IS WHAT RAMBUS SAYS IN THE
17 SUMMARY OF THE INVENTION. "'THE PRESENT
18 INVENTION,'" CLOSED QUOTE, "INCLUDES A MEMORY
19 SUBSYSTEM COMPRISING AT LEAST TWO SEMICONDUCTOR
20 DEVICES, INCLUDING AT LEAST ONE MEMORY DEVICE,
21 CONNECTED IN PARALLEL TO A BUS, WHERE THE BUS
22 INCLUDES A PLURALITY OF BUS LINES FOR CARRYING
23 SUBSTANTIALLY ALL ADDRESS, DATA AND CONTROL
24 INFORMATION NEEDED BY SAID MEMORY DEVICES, AND,"
25 SKIPPING DOWN A LITTLE, "THE BUS HAS SUBSTANTIALLY

1 FEWER BUS LINES THAN THE NUMBER OF BITS IN A SINGLE
2 ADDRESS."

3 THOSE TWO LIMITATIONS ABOUT CARRYING
4 SUBSTANTIALLY ALL ADDRESS, DATA AND CONTROL
5 INFORMATION NEEDED BY THE MEMORY DEVICES, AND "THE
6 BUS HAS SUBSTANTIALLY FEWER LINES THAN THE NUMBER
7 OF BITS IN A SINGLE ADDRESS," THAT'S THE WAY RAMBUS
8 HAS CHOSEN TO DEVISE ITS INVENTION.

9 NOW, THERE ARE MANY OTHER FEATURES THAT
10 ARE DISCLOSED IN THE RAMBUS SPECIFICATION, OKAY,
11 AND ALTHOUGH THERE ARE 15 PATENTS-IN-SUIT, THE
12 PARTIES ARE IN AGREEMENT THAT THE SPECIFICATIONS
13 ARE SUBSTANTIALLY THE SAME FOR ALL OF THEM.

14 THE COURT: OKAY.

15 MR. BROWN: AND THIS PARTICULAR ONE IS 8
16 OF THE '152 PATENT.

17 WELL, I ALSO HAVE THE CITATION FOR THE
18 '263 PATENT WHICH RAMBUS HAS BEEN USING PRETTY
19 CONSISTENTLY.

20 AND THEN THIS IS CONTINUING IN THE SAME
21 PART OF THE SUMMARY OF THE INVENTION. THERE ARE --
22 THERE'S A REFERENCE TO FIGURE 2 THAT ENDS WITH,
23 "THE NEW BUS," THAT IS, THE BUS OF THE INVENTION,
24 "INCLUDES CLOCK SIGNALS, POWER AND MULTIPLEXED
25 ADDRESS, DATA AND CONTROL SIGNALS."

1 THAT IS BASICALLY WHERE WE GET OUR
2 PROPOSED DEFINITION. THERE ARE MORE STATEMENTS
3 THAT ARE IN HERE.

4 FOR EXAMPLE -- THIS IS STILL READING FROM
5 THE SUMMARY OF THE INVENTION. WE TALK ABOUT THE
6 SYSTEMS OF THE INVENTION. "DRAMS AND OTHER DEVICES
7 RECEIVE ADDRESS AND CONTROL INFORMATION OVER THE
8 BUS AND TRANSMIT OR RECEIVE REQUESTED DATA OVER THE
9 SAME BUS. EACH MEMORY DEVICE CONTAINED ONLY A
10 SINGLE BUS INTERFACE WITH NO OTHER SIGNAL
11 OPINIONS."

12 AND THEN IMPORTANTLY FOR THE DISTINCTION
13 BETWEEN WHAT THE TERM THAT WE'RE ASKING THE COURT
14 TO CONSTRUE HERE AND WHAT THE FEDERAL CIRCUIT DID,
15 AND AGAIN, THIS IS IN THE SUMMARY OF THE INVENTION
16 SECTION, RAMBUS INDICATES THAT THE DRAMS THAT
17 CONNECT TO THIS BUS, AGAIN, THE NEW BUS, THE ONE
18 WITH SINGLE SET OF SIGNAL LINES OR -- I'M GOING TO
19 CALL IT FOR SHORTHAND JUST A MULTIPLEXED NARROW BUS
20 RATHER THAN TRY AND REPEAT THE, RATHER THAN TRY AND
21 REPEAT THE ACTUAL PHRASES.

22 BUT THE DRAMS THAT CONNECT TO THIS BUS
23 DIFFER FROM CONVENTIONAL DRAMS IN A NUMBER OF WAYS.
24 THEY INCLUDE REGISTERS THAT HAVE VARIOUS TIMES OF
25 INFORMATION IN THEM.

1 THEN IT SAYS "NEW BUS INTERFACE CIRCUITS
2 MUST BE ADDED AND THE INTERNALS OF PRIOR ART DRAM
3 DEVICES NEED TO BE MODIFIED SO THAT THEY CAN
4 PROVIDE AND ACCEPT DATA TO AND FROM THE BUS AT THE
5 PEAK DATA RATE OF THE BUS."

6 AND I'M ADDING MY OWN EMPHASIS THERE.

7 THERE ARE NUMEROUS OTHER -- WELL,
8 ACTUALLY, THIS IS FROM THE DETAILED DESCRIPTION OF
9 THE INVENTION WHERE RAMBUS SAYS THAT THE PRESENT
10 INVENTION IS DESIGNED TO PROVIDE A HIGH SPEED
11 MULTIPLEXED BUS AND TO PROVIDE DEVICES ADAPTED FOR
12 USE IN THE BUS SYSTEM.

13 THE BUS, CONSISTENT WITH THE STATEMENT
14 EARLIER THAT THE NUMBER OF BITS IN AN ADDRESS IS
15 SUBSTANTIALLY GREATER THAN THE NUMBER OF LINES IN
16 THE BUS, RAMBUS THEN SAYS, "THE BUS CONSISTS OF A
17 RELATIVELY SMALL NUMBER OF LINES CONNECTED IN
18 PARALLEL TO EACH DEVICE ON THE BUS. THE BUS
19 CARRIES," AS THE SUMMARY OF THE INVENTION SAID,
20 "SUBSTANTIALLY ALL ADDRESS, DATA AND CONTROL
21 INFORMATION NEEDED BY DEVICES FOR COMMUNICATION
22 WITH OTHER DEVICES ON THE BUS."

23 BELOW THAT, "THERE IS NO NEED FOR
24 SEPARATE ADDRESS AND DATA LINES BECAUSE ADDRESS AND
25 DATA INFORMATION CAN BE SENT OVER THE SAME LINES."

1 THE COURT: CAN YOU SQUARE YOUR PROPOSED
2 DEFINITION WITH THE DEFINITION OF BUS THAT THE
3 FEDERAL CIRCUIT CAME UP WITH?

4 MR. BROWN: THE ONLY WAY -- THE WAY TO
5 SQUARE THAT DEFINITION, OKAY, IS THAT WHAT WE'RE
6 ASKING THE COURT TO DECIDE IS TO CONSTRUE AS
7 DEVICE.

8 OKAY. AND YES, IT IS -- WE ARE ASKING
9 THE COURT TO SAY THAT IT IS A DEVICE WITH A
10 PARTICULAR INTERFACE, AND THE INTERFACE HAS TO BE
11 TO A BUS WHICH IS CHARACTERIZED BY THE TWO
12 LIMITATIONS THAT IT IS A PLURALITY OF BUS LINES FOR
13 CARRYING SUBSTANTIALLY ALL ADDRESS, DATA AND
14 CONTROL INFORMATION, AND WHERE THE BUS HAS
15 SUBSTANTIALLY FEWER BUS LINES THAN THE NUMBER OF
16 BITS IN A SINGLE ADDRESS.

17 THAT IS, THAT DEFINES, OR BASICALLY HAS A
18 SIGNIFICANT EFFECT ON THE INTERFACE WHICH IS IN THE
19 DEVICE; THAT IS, THE INTERFACE -- THE CIRCUITS IN
20 THE DEVICE HAVE TO KNOW WHAT THE PROTOCOL IS FOR
21 SENDING INFORMATION OVER THE BUS SO THAT IT CAN
22 INTERPRET THE INFORMATION THAT COMES IN AT ONE TIME
23 IN THE PREFERRED EMBODIMENT IN A PACKET, BUT NOT
24 NECESSARILY RESTRICT IT TO A PACKET, THAT IT CAN
25 INTERPRET THE INFORMATION WHICH COMES OVER A BUS

1 LINE AS EITHER ADDRESS INFORMATION OR CONTROL
2 INFORMATION OR DATA DEPENDING ON THE PARTICULAR
3 TIMING AND THE RELATIONSHIP TO OTHER SIGNALS.

4 THE COURT: ALL RIGHT. LET ME ASK YOU,
5 AND I MAY BE MISSING SOMETHING, BUT IF A BUS DOES
6 NOT HAVE TO BE A MULTIPLEXED BUS --

7 MR. BROWN: THEN THAT DOES REMOVE THE
8 CONSTRAINTS ON THE INTERFACE IN THE DEVICE THAT
9 WE'RE ASKING ABOUT.

10 THE COURT: RIGHT. SO YOUR DEFINITION
11 DOESN'T WORK?

12 MR. BROWN: UNDER THAT DEFINITION OF THE
13 TERM "BUS," YES.

14 AND WE AGREE THAT IF THAT, IF THAT
15 DEFINITION OF THE TERM "BUS" APPLIES HERE, AND WE
16 DO NOT THINK IT SHOULD BECAUSE OF THE CHANGE IN THE
17 LAW, THEN WE LOSE ON THAT PART OF THE DEFINITION OF
18 DEVICE.

19 THE COURT: OKAY.

20 MR. BROWN: OKAY?

21 THE COURT: YEP.

22 MR. BROWN: NOW, THERE'S ANOTHER PART OF
23 THE DEFINITION OF DEVICE THAT I DO WANT TO GO OVER,
24 AND THAT IS THE RESTRICTION TO WHETHER OR NOT THE
25 DEVICE IS LIMITED TO A SINGLE CHIP DEVICE.

1 AND THE FIRST PART OF OUR PROPOSED
2 DEFINITION IS THAT BASICALLY -- WELL, WHAT WE TRIED
3 TO GET AT WAS THAT WE COULD HAVE MULTIPLE -- A
4 DEVICE COULD HAVE MULTIPLE CHIPS WITHIN A UNIT, AS
5 LONG AS THEY'RE PHYSICALLY CONNECTED AND OPERATE AS
6 A UNIT.

7 OKAY. THAT IS -- THAT IS -- AN
8 INTEGRATED CIRCUIT DEVICE, FOR EXAMPLE, IS A DEVICE
9 THAT COULD INCLUDE ONE OR MORE INTEGRATED CIRCUITS,
10 AND IN THIS CASE A DEVICE THAT INCLUDES ONE OR MORE
11 INTEGRATED CIRCUIT CHIPS.

12 NOW, THE REASON -- OR THERE'S A NUMBER OF
13 REASONS WHY WE ARGUE THAT, WHY A DEVICE SHOULD BE
14 INTERPRETED AS A DEVICE THAT CAN HAVE MORE THAN ONE
15 CHIP.

16 FIRST, LET'S LOOK AT RAMBUS'S SUPPORT FOR
17 THIS. RAMBUS HAS PROVIDED A DEFINITION OF
18 INTEGRATED CIRCUIT, WHICH IS A COMBINATION OF
19 CIRCUIT ELEMENTS INSEPARABLY ASSOCIATED ON OR
20 WITHIN A CONTINUOUS SUBSTRATE.

21 NOW, THAT'S ESSENTIALLY THE SAME AS THEIR
22 PROPOSED DEFINITION, OR EFFECTIVELY THE SAME AS
23 THEIR PROPOSED DEFINITION FOR INTEGRATED CIRCUIT
24 DEVICE.

25 THE PROBLEM IS, OR AT LEAST ONE PROBLEM,

1 IS THAT THE DICTIONARY DEFINITION THAT THEY'VE
2 SUPPLIED US IS NOT A DEFINITION OF INTEGRATED
3 CIRCUIT DEVICE. OKAY. WE DO NOT ARGUE THAT THIS
4 IS AN APPROPRIATE DEFINITION OF AN INTEGRATED
5 CIRCUIT, OKAY, THAT AN INTEGRATED CIRCUIT IS ITSELF
6 A SINGLE CHIP DEVICE, OR A SINGLE CHIP, OKAY, OR
7 ACTUALLY A SINGLE CHIP DEVICE FOR THAT MATTER.

8 HOWEVER, THIS DEFINITION OF INTEGRATED
9 CIRCUIT ESSENTIALLY DELETES THE TERM "DEVICE" FROM
10 THE CLAIMS. THERE HAS TO BE SOME -- DEVICE DOES
11 APPEAR IN ALL OF THE CLAIMS, AND IT HAS TO BE GIVEN
12 SOME MEANING, SOME MEANING WHICH IS DIFFERENT FROM
13 JUST A SINGLE CHIP.

14 A MORE GENERAL DEFINITION IN -- I MEAN,
15 DEVICE IS UNDERSTOOD AS MORE THAN A SINGLE CHIP IN
16 GENERAL IN THE ART.

17 IT BASICALLY IS, CAN BE A COMPUTER
18 COMPLEMENT OR THE COMPUTER ITSELF. FOR EXAMPLE, A
19 PRINTER IS AN I/O DEVICE. A KEYBOARD IS AN I/O
20 DEVICE. IT MAY HAVE MULTIPLE CHIPS IN IT. A
21 DISPLAY ON A COMPUTER IN COMMON PARLANCE IS AN I/O
22 DEVICE, AN INPUT/OUTPUT DEVICE, AND IT HAS MULTIPLE
23 CHIPS IN IT, AND ACTUALLY I GUARANTEE IF YOU TAKE
24 THAT APART, IT WILL HAVE MULTIPLE CHIPS IN IT
25 (INDICATING).

1 SO AS LONG AS THERE ARE MULTIPLE CHIPS
2 THAT ARE CONNECTED TOGETHER THAT ARE DESIGNED TO
3 SERVE A SPECIAL PURPOSE OR THAT PERFORM A FUNCTION,
4 THEN THEY ARE -- THEN THEY CAN BE A DEVICE, EVEN
5 THOUGH THERE ARE MULTIPLE CHIPS INVOLVED.

6 ANOTHER DEFINITION FROM ANOTHER
7 CONTEMPORANEOUS SOURCE IS AN ELECTRONIC OR
8 ELECTROMECHANICAL MACHINE OR COMPONENT, FROM AS
9 SMALL AS A TRANSISTOR TO AS LARGE AS A PERIPHERAL
10 UNIT THAT JUST HAS A SINGLE FUNCTIONALITY.

11 NOW, I AGREE THAT -- I ALSO AGREE THAT A
12 SINGLE CHIP, AN INTEGRATED CIRCUIT CHIP, IS AN
13 EXAMPLE OF A DEVICE.

14 BUT THE TERM "DEVICE" IS MUCH BROADER
15 THAN JUST A SINGLE CHIP DEVICE, AND RAMBUS KNEW
16 THAT IT'S BROADER THAN A SINGLE CHIP DEVICE.

17 THIS IS ONE OF THE OTHER PATENTS-IN-SUIT,
18 AND THIS IS ACTUALLY THE '481 PATENT THAT WAS
19 ATTACHED TO THE JOINT CLAIM CONSTRUCTION STATEMENT
20 AS EXHIBIT 33.

21 AND THIS IS AN EXAMPLE -- THIS IS NOT ONE
22 OF THE PATENTS-IN-SUIT.

23 BUT RAMBUS CERTAINLY KNEW HOW TO LIMIT
24 THE CLAIM TO A SINGLE CHIP DEVICE IF IT WANTED TO
25 DO THAT.

1 THE CLAIM RECITES, A MEMORY DEVICE,
2 COMPROMISING A MEMORY ARRAY, IT COMPRISES INTERFACE
3 CIRCUITRY, A CLOCK SIGNAL RECEIVING CIRCUIT, PHASE
4 LOCKED LOOP CIRCUIT, AND THEN IN PARTICULAR, AT THE
5 VERY END OF THE CLAIM, THAT RAMBUS SPECIFIED IN
6 THIS PATENT THAT THE MEMORY ARRAY, THE INTERFACE
7 CIRCUIT, THE CLOCK SIGNAL RECEIVING CIRCUIT, AND
8 THE PHASE LOCKED LOOP CIRCUITRY ALL RESIDED ON A
9 SINGLE SEMICONDUCTOR SUBSTRATE.

10 SO THIS CLAIM RECITES A SINGLE CHIP
11 DEVICE.

12 THIS -- LANGUAGE LIKE THIS, "WHEREIN THE
13 MEMORY ARRAY AND THE OTHER COMPONENTS RESIDING ON A
14 SINGLE SEMICONDUCTOR SUBSTRATE" IS NOT IN A SINGLE
15 CLAIM THAT'S BEEN ASSERTED IN THIS LITIGATION.
16 THERE IS NO ANALOGOUS LIMITATION IN ANY OF THE
17 CLAIMS THAT ARE AT ISSUE IN THE 15 PATENTS-IN-SUIT.

18 THE COURT: SAY THAT AGAIN. I MISSED
19 YOUR FIRST PART.

20 MR. BROWN: OKAY. THIS LIMITATION THAT'S
21 IN THE '481 PATENT, OKAY, THAT RESTRICTS, THAT SAYS
22 THE VARIOUS RECITED COMPONENTS ALL RESIDE ON A
23 SINGLE SEMICONDUCTOR SUBSTRATE, THAT LIMITATION IS
24 NOT PRESENT, AND THERE'S NO ANALOGOUS LIMITATION
25 WHICH IS PRESENT, IN ANY OF THE ASSERTED CLAIMS IN

1 ANY OF THE 15 PATENTS THAT HAVE BEEN ASSERTED IN
2 THIS LAWSUIT.

3 NOW, THERE IS ADDITIONAL INTRINSIC
4 EVIDENCE WHICH I COULD PROBABLY GO THROUGH AND
5 RECITE HERE, BUT BASICALLY RAMBUS, IN THE
6 SPECIFICATION, GIVES EXAMPLES OF THE DEVICES. SOME
7 OF THEM ARE SINGLE, OR COULD BE SINGLE CHIP
8 DEVICES, AND SOME OF THEM CAN BE MULTIPLE CHIP
9 DEVICES.

10 ONE EXAMPLE, AND THESE ARE CITED IN OUR
11 BRIEFS ON THE SUBJECT, IS AN EXAMPLE OF WHERE A
12 C.P.U. COULD BE A, ONE OF THE DEVICES.

13 BUT IT IS WELL KNOWN, AND THERE IS
14 ADDITIONAL EVIDENCE THAT WE HAVE CITED IN THE JOINT
15 CLAIM CONSTRUCTION STATEMENT TO SHOW THAT CERTAINLY
16 IN THE 1990 TIMEFRAME, AND EVEN UNTIL TODAY,
17 C.P.U.'S CAN BE SINGLE CHIP DEVICES OR THEY CAN BE
18 MULTI CHIP DEVICES.

19 SO THAT'S ANOTHER EXAMPLE FROM THE
20 SPECIFICATION OF THE PATENTS-IN-SUIT, THAT ONE OF
21 THE DEVICES THAT RAMBUS SPECIFICALLY CONTEMPLATED
22 AS BEING A DEVICE IS, IS POTENTIALLY A MULTI CHIP
23 DEVICE.

24 THE COURT: SO YOUR DEFINITION WOULD BE?

25 MR. BROWN: BASICALLY ELECTRONIC --

1 RATHER -- LET'S SEE. IF WE HAD INTEGRATED CIRCUIT
2 DEVICE, WE WOULD SAY "ELECTRONIC CIRCUITS OR
3 COMPONENTS PHYSICALLY CONNECTED IN A UNIT."

4 THAT IS, THAT IT -- AND AN EXAMPLE OF
5 WHAT I WOULD SAY WOULD BE A DEVICE IS ON THURSDAY I
6 TALKED BRIEFLY ABOUT MEMORY MODULES, OKAY, WHERE
7 BASICALLY YOU HAVE A CARD THAT YOU STICK IN THE
8 COMPUTER AND IT COULD HAVE TWO OR FOUR OR EIGHT
9 CHIPS ON IT, ALL MEMORY CHIPS.

10 BUT TOGETHER, THOSE, THE CHIPS ON THAT
11 CARD, BECAUSE THEY'RE PHYSICALLY CONNECTED IN THE
12 UNIT AND THEY FUNCTION TOGETHER, THOSE COULD BE A
13 DEVICE. THAT MODULE COULD BE A DEVICE, EVEN THOUGH
14 IT HAS MULTIPLE CHIPS ON IT.

15 THE COURT: I WAS BASICALLY LOOKING,
16 BECAUSE I DIDN'T SEE IT AS I LOOKED BACK, AS TO THE
17 ACTUAL LANGUAGE YOU PROPOSED WITH RESPECT TO THAT.

18 MR. BROWN: AND BASICALLY WHAT WE
19 PROPOSED FOR THE TERM "INTEGRATED CIRCUIT DEVICE"
20 IS A DEVICE, WHICH WOULD TAKE SOME MODIFICATION,
21 LIKE ELECTRONIC CIRCUITS PHYSICALLY CONNECTED IN A
22 UNIT THAT INCLUDES ONE OR MORE INTEGRATED CIRCUITS.

23 THE COURT: OKAY.

24 MR. BROWN: OKAY?

25 THE COURT: YES.

1 MR. BROWN: OKAY. AND I ASSUME FROM OUR
2 EARLIER DISCUSSION THAT FURTHER DISCUSSION ABOUT
3 THE BUS IS PROBABLY NOT NECESSARY AT THIS POINT.

4 THE COURT: I THINK THAT'S TRUE.

5 MR. BROWN: OKAY.

6 MR. DETRE: YOUR HONOR, DO I UNDERSTAND,
7 THEN, THAT THERE'S NO NEED FOR ME TO ADDRESS BUS AT
8 THIS TIME?

9 THE COURT: I THINK WHAT I'M REALLY MOST
10 INTERESTED IN HEARING FROM YOU ON IS A DISCUSSION
11 ABOUT ONE OR MORE CHIPS.

12 MR. DETRE: OKAY.

13 WELL, FIRST OF ALL, ON ONE OR MORE CHIPS,
14 THE FEDERAL CIRCUIT HAS DECIDED THIS ISSUE. THEY
15 DID FIND THAT "INTEGRATED CIRCUIT DEVICE" CARRIES
16 ITS ORDINARY MEANING, AND THAT WAS ESSENTIALLY AS A
17 CHIP.

18 NOW, MR. BROWN ARGUES THAT YOUR -- THAT
19 THAT WAS JUST DICTA.

20 BUT IT WASN'T. THE FEDERAL CIRCUIT DID
21 CONSIDER THE ISSUE THAT MR. BROWN DESCRIBED ABOUT
22 WHETHER AN INTEGRATED CIRCUIT DEVICE NEEDS TO HAVE
23 AN IDENTIFICATION REGISTER, FOUND THAT IT DID NOT,
24 AND IT ALSO FOUND THAT INTEGRATED CIRCUIT DEVICE,
25 AS USED IN THAT PARTICULAR CLAIM, CARRIES ITS

1 ORDINARY MEANING TO ONE OF ORDINARY SKILL IN THE
2 ART.

3 AND THEN IT FOUND WHAT THAT ORDINARY
4 MEANING TO ONE OF ORDINARY SKILL IN THE ART WAS,
5 AND IT WAS A CHIP.

6 NOW, THAT IS NOT DICTA BECAUSE THE
7 FEDERAL CIRCUIT HAS REMANDED TO THE EASTERN
8 DISTRICT OF VIRGINIA FOR TRIAL OF INFRINGEMENT WITH
9 THAT CONSTRUCTION. IT IS BINDING ON THAT LOWER
10 COURT. DICTA, OF COURSE, IS NOT BINDING.

11 AND TO ARRIVE AT A DIFFERENT CONSTRUCTION
12 OF "INTEGRATED CIRCUIT DEVICE" HERE WOULD REALLY
13 DEFEAT THE WHOLE IDEA THAT THE SUPREME COURT
14 EXPRESSED IN ITS MARKMAN DECISION WHERE IT SAID
15 THAT CLAIM CONSTRUCTION WAS A MATTER OF LAW AND
16 THAT THE CONSTRUCTIONS OF THE FEDERAL CIRCUIT
17 SHOULD HAVE STARE DECISIS EFFECT TO ACHIEVE
18 UNIFORMITY.

19 NOW, THERE ARE OTHER REASONS, OF COURSE,
20 WHY THE FEDERAL CIRCUIT WAS CORRECT THAT INTEGRATED
21 CIRCUIT DEVICE IS JUST ONE CHIP.

22 AND WE, OF COURSE, HAVE OUR EXPERT
23 DECLARATION IN WHICH MR. MURPHY INDICATES THAT IN
24 HIS OPINION, THAT WOULD BE THE UNDERSTANDING OF ONE
25 OF ORDINARY SKILL IN THE ART.

1 IN ADDITION -- EXCUSE ME WHILE I LOOK
2 THROUGH THE PAGES OF MY OUTLINE.

3 THE INVENTION THAT RAMBUS DESCRIBED HERE,
4 THE INVENTIVE PART OF THESE CLAIMS THAT WE'RE
5 DISCUSSING THAT RELATE TO MEMORY DEVICES AND DRAMS
6 WAS TO TAKE THINGS THAT WERE PREVIOUSLY DONE ON
7 MULTIPLE CHIPS AND PUT LOGIC THAT WAS PREVIOUSLY
8 NOT ON A MEMORY DEVICE ONTO A MEMORY DEVICE.

9 AND ONE OF THE INVENTORS OF THE RAMBUS
10 PATENTS, DR. FARMWALD, IN HIS DEPOSITION TESTIMONY
11 IN THIS CASE DESCRIBED THAT ORIGINAL IDEA THAT THEY
12 HAD TO MAKE EACH DRAM LOOK LIKE A MEMORY CARD.

13 AT THAT TIME, MEMORY CARDS HAD MULTIPLE
14 MEMORY CHIPS ON THEM AND THEY HAD LOGIC IN A BUS
15 INTERFACE UNIT, SO YOU WOULD TAKE THIS CARD AND
16 PLUG IT INTO THE COMPUTER AND THE BUS INTERFACE
17 UNIT WOULD COMMUNICATE WITH THE C.P.U. OR A
18 SPECIALIZED CONTROLLER ACROSS THE BUS AND THEN THE
19 BUS INTERFACE UNIT WOULD INTERFACE WITH THE DRAMS.

20 AND THE IDEA WAS, YOU KNOW, WELL, LET'S
21 TAKE THAT LOGIC THAT'S IN THE BUS INTERFACE UNIT
22 AND PUT IT RIGHT ON THE MEMORY DEVICES THEMSELVES.

23 NOW, MR. BROWN SAYS, WELL, WE SHOULD
24 CONSTRUE DEVICE HERE AS IF IT COULD INCLUDE THOSE
25 PRIOR ART MEMORY DEVICES, MEMORY CARDS, EXCUSE ME.

1 WELL, OF COURSE THERE'S A GOOD REASON FOR
2 HYNIX TO ARGUE THAT. THAT WAS EXACTLY THE PRIOR
3 ART THAT RAMBUS WAS LOOKING AT AND TRYING TO
4 IMPROVE ON BY PUTTING EVERYTHING ON ONE CHIP. IF
5 YOU LET THAT PRIOR ART IN, IT, LET'S JUST SAY,
6 SIGNIFICANTLY BOLSTERS HYNIX'S INVALIDITY ARGUMENT.

7 AND THIS IS NOT JUST DR. FARMWALD'S
8 TESTIMONY ABOUT WHAT THEIR IDEA WAS. IT'S
9 REFLECTED IN THE PATENT.

10 COULD WE PULL UP THE '263 PATENT AND GO
11 TO PAGE 18?

12 AND THAT SHOWS COLUMN 3 OF THE PATENT.

13 AND IF WE COULD BLOW UP, ON THE, ON THE
14 LEFT-HAND COLUMN, COLUMN 3, RIGHT AROUND THE
15 PARAGRAPH THAT BEGINS AT LINE 11. THAT'S PERFECT.

16 AND IF WE LOOK AT LINE 11 THROUGH 15, THE
17 PARAGRAPH SAYS, "ONE OBJECT OF THE PRESENT
18 INVENTION IS TO USE A NEW BUS INTERFACE BUILT INTO
19 SEMICONDUCTOR DEVICES TO SUPPORT HIGH-SPEED ACCESS
20 TO LARGE BLOCKS OF DATA," ET CETERA.

21 SO THE IDEA HERE WAS TO TAKE THAT LOGIC
22 THAT WAS PREVIOUSLY ON A SEPARATE CHIP AND PUT IT
23 RIGHT INTO THE MEMORY DEVICE.

24 NOW, MR. BROWN ALSO SAID THAT, YOU KNOW,
25 PRETTY CLEARLY WHEN RAMBUS USED THE TERM

1 "INTEGRATED CIRCUIT DEVICE," IT MEANT SOMETHING
2 MORE THAN JUST A SINGLE CHIP.

3 BUT IN FACT, IN THIS CASE, THE ONLY
4 PATENT THAT THE TERM "INTEGRATED CIRCUIT DEVICE"
5 ACTUALLY APPEARS AS SUCH IS THE '020 PATENT.

6 THAT WAS A PATENT -- IT DATES BACK, OF
7 COURSE, TO THE ORIGINAL 1990 APPLICATION, BUT THAT
8 WAS A PATENT THAT WAS FILED IN APRIL OF 2000. THE
9 PATENT ISSUED IN APRIL OF 2002.

10 THIS WAS WHILE LITIGATION WAS GOING ON IN
11 THE EASTERN DISTRICT OF VIRGINIA, WHILE RAMBUS WAS
12 ADVOCATING, TO THE EASTERN DISTRICT OF VIRGINIA, AS
13 MR. BROWN SAID, AND THEN LATER TO THE FEDERAL
14 CIRCUIT, THAT AN INTEGRATED CIRCUIT DEVICE MEANS A
15 SINGLE CHIP.

16 WHILE THAT WAS GOING ON, RAMBUS
17 PROSECUTED THIS PATENT APPLICATION WITH CLAIMS
18 DIRECTED TO INTEGRATED CIRCUIT DEVICE.

19 IT'S QUITE CLEAR WHAT RAMBUS MEANT BY
20 "INTEGRATED CIRCUIT DEVICE."

21 FINALLY, I'D LIKE TO JUST ADDRESS
22 MR. BROWN'S ARGUMENT ABOUT CLAIM 1 OF THE '481
23 PATENT.

24 IF WE COULD PULL UP THE '481 PATENT AND
25 GO TO CLAIM 1. COULD YOU BLOW UP CLAIM 1? IT'S AT

1 THE TOP OF THE LEFT-HAND COLUMN.

2 IF WE LOOK AT CLAIM 1, CLAIM 1 RECITES A
3 MEMORY DEVICE, COMPRISING, AND THEN IT LISTS A
4 MEMORY ARRAY, INTERFACE CIRCUITRY, CLOCK SIGNAL
5 RECEIVING CIRCUIT, AND PHASE LOCKED LOOP CIRCUITRY.

6 IN THIS CASE, THE TERM "DEVICE" APPEARS
7 ONLY IN THE PREAMBLE, AND IT'S PRETTY CLEAR FROM
8 LOOKING AT THIS CLAIM THAT THE PREAMBLE IS NOT A
9 LIMITATION HERE.

10 AS I'M SURE YOUR HONOR KNOWS, A PREAMBLE
11 IS ONLY LIMITING IF IT RECITES ESSENTIAL STRUCTURE,
12 OR AS THE FEDERAL CIRCUIT HAS REPEATEDLY SAID, IT'S
13 NECESSARY TO GIVE LIFE, MEANING AND VITALITY TO THE
14 CLAIM.

15 HERE THE WHOLE PREAMBLE IS A MEMORY
16 DEVICE. PRETTY CLEARLY THE ESSENTIAL STRUCTURE
17 HERE IS THEN RECITED IN THE DETAILED COMPONENTS
18 THAT FOLLOW.

19 THE PREAMBLE HERE IS NOT LIMITING, AND
20 IT'S NEVER -- THE WORD "DEVICE" NEVER APPEARS
21 AGAIN. THE BODY OF THE CLAIM NEVER REFERS BACK TO
22 THE PREAMBLE.

23 IN FACT, THE LIMITATION THAT MR. BROWN
24 HAS FOCUSSED ON, THE FACT THAT THE OTHER COMPONENTS
25 ALL RESIDE ON A SINGLE SEMICONDUCTOR SUBSTRATE WAS

1 ADDED DURING PROSECUTION OF THIS CLAIM TO OVERCOME
2 SOME PRIOR ART THAT THE, THAT THE EXAMINER HAD
3 ADVANCED THAT INVOLVED MULTIPLE CHIPS.

4 AND RAMBUS COULD NOT RELY ON THE TERM
5 "DEVICE" AS INDICATING JUST A SINGLE CHIP BECAUSE
6 PRETTY CLEARLY HERE THAT TERM IS NOT A LIMITATION.

7 THANK YOU, YOUR HONOR.

8 THE COURT: OKAY. ALL RIGHT. SHALL WE
9 TURN TO, I GUESS NUMBER 2 WAS --

10 MR. BROWN: SYNCHRONOUS MEMORY DEVICE,
11 YOUR HONOR.

12 THE COURT: -- SYNCHRONOUS MEMORY DEVICE.

13 MR. BROWN: AND I'M GOING TO HAVE TO FAST
14 FORWARD TO IT. HERE WE GO.

15 AND HERE, YOUR HONOR, WE AREN'T ENTIRELY
16 SURE WHICH ORDER WE SHOULD DO THE ARGUMENT BECAUSE
17 YOUR TENTATIVE IS --

18 THE COURT: A LITTLE OF BOTH.

19 MR. BROWN: IT'S A LITTLE OF BOTH.

20 THE COURT: I GUESS WHOEVER DOESN'T LIKE
21 IT, LIKES IT THE LEAST GOES FIRST.

22 MR. BROWN: MR. DETRE?

23 MR. DETRE: WELL --

24 THE COURT: MAYBE IT'S OKAY WITH BOTH.

25 MAYBE BOTH OF YOU LIKE IT AND THEN WE CAN MOVE ON.

1 MR. DETRE: WE'VE JUST HAD A FEW MINUTES,
2 OF COURSE, YOUR HONOR, TO LOOK AT THIS. AND WHILE
3 IT'S NOT BAD, WE'RE NOT SURE THAT IT'S, THAT IT'S
4 PERFECT, AND OUR CONCERN IS THAT, LIKE HYNIX'S
5 PROPOSED CONSTRUCTION, THIS MAY BE BROAD ENOUGH TO
6 SWEEP IN PRIOR ART DRAMS THAT EVERYBODY CALLS
7 ASYNCHRONOUS DRAMS, AND THAT'S BECAUSE OF A COUPLE,
8 A COUPLE OF FEATURES HERE.

9 ONE IS THAT "SPEED OF OPERATION" IS A
10 SOMEWHAT VAGUE TERM, AND SO IS "RELATED."

11 AND IT IS CERTAINLY TRUE THAT IN
12 ASYNCHRONOUS DRAMS, AND WE TALKED ABOUT THOSE AT
13 THE TUTORIAL, THERE WERE RAS AND CAS SIGNALS, AND
14 THOSE -- THE MEMORY CONTROLLER ITSELF MIGHT RECEIVE
15 AN EXTERNAL CLOCK AND MIGHT USE AN EXTERNAL CLOCK
16 IN DETERMINING WHEN TO SEND THOSE RAS AND CAS
17 SIGNALS TO THE DRAM.

18 THE DRAM ITSELF WOULD NOT, WOULD NOT
19 RECEIVE A CLOCK AND, CONSEQUENTLY, THE OPERATION OF
20 THE DRAM ITSELF WAS ASYNCHRONOUS.

21 BUT POSSIBLY YOU COULD SAY THAT THE, THAT
22 SOME ELEMENTS OF HOW QUICKLY THAT MEMORY DEVICE,
23 THAT ASYNCHRONOUS DRAM WOULD OPERATE WOULD BE
24 RELATED TO THAT SYSTEM CLOCK THAT WAS DRIVING THE
25 OPERATIONS OF THE CONTROLLER, FOR EXAMPLE.

1 SO I -- WE THINK THAT YOUR CONSTRUCTION
2 HERE, YOUR HONOR, COULD BE MODIFIED IN CERTAIN WAYS
3 THAT WOULD OVERCOME THAT PROBLEM.

4 AND ONE THING, I THINK, SHOULD BE MADE
5 CLEAR, AND I THINK EVERYBODY IS IN AGREEMENT ON
6 THIS, MR. TAYLOR, I THINK, SAID SO IN HIS
7 DEPOSITION, AND WE AGREE ALSO, THAT A SYNCHRONOUS
8 MEMORY DEVICE HAS TO RECEIVE THE EXTERNAL CLOCK.

9 SO WE THINK IT SHOULD BE CLARIFIED TO SAY
10 THAT IT'S A MEMORY DEVICE THAT RECEIVES AN EXTERNAL
11 CLOCK SIGNAL AND WHOSE OPERATION IS SYNCHRONIZED,
12 NOT NECESSARILY -- AGAIN, THE SPEED OF OPERATION,
13 BUT IT'S NOT CLEAR EXACTLY WHAT THAT MEANS -- BUT
14 WHOSE OPERATION IS SYNCHRONIZED OR HAS A KNOWN
15 TIMING RELATIONSHIP WITH RESPECT TO -- THAT'S HOW
16 THE PARTIES HAVE AGREED "SYNCHRONIZED" SHOULD BE
17 CONSTRUED -- TO THE REST OF THE SYSTEM USING THAT
18 EXTERNAL CLOCK.

19 OR POSSIBLY -- I'M MAKING IT UP A LITTLE
20 BIT ON THE FLY, YOUR HONOR, BECAUSE AS I SAID, WE
21 ONLY HAD A VERY FEW MINUTES TO LOOK AT THIS, BUT IT
22 MAY NOT BE SYNCHRONIZED, OF COURSE, TO THE WHOLE
23 REST OF THE SYSTEM, BUT IT MIGHT BE SYNCHRONIZED TO
24 PART OF THE SYSTEM TO WHICH THE DEVICE IS
25 CONNECTED.

1 SO WITH THOSE MODIFICATIONS, WE THINK
2 THAT THAT WOULD OVERCOME THE PROBLEMS THAT WE THINK
3 MAY EXIST IN THE CONSTRUCTION THAT YOUR HONOR HAS
4 TENTATIVELY PROPOSED HERE.

5 THE COURT: BEFORE YOU SIT DOWN, LET ME
6 JUST LOOK AT THIS.

7 (PAUSE IN PROCEEDINGS.)

8 THE COURT: IF YOU SUBSTITUTED "TIMING"
9 FOR "SPEED OF OPERATION" AND "GOVERNED" OR
10 "CONTROLLED" FOR "RELATED," WOULD THAT IN SOME WAY
11 MAKE IT MAKE SENSE WITH BEING RELATED TO PART OF
12 THE REST OF THE SYSTEM? WOULD THAT WORK?

13 MR. DETRE: SO IT -- IF I UNDERSTAND YOUR
14 HONOR CORRECTLY, IT WOULD READ "A MEMORY DEVICE
15 WHOSE TIMING IS GOVERNED" --

16 THE COURT: "BY AN EXTERNAL CLOCK," AND
17 THEN IN SOME WAY, "AND IS RELATED TO THE REST OF
18 THE SYSTEM," OR "PART OF THE REST OF THE SYSTEM."

19 THAT'S CLUMSY, BUT WHAT I'M TRYING TO GET
20 AT, DOES THAT ADDRESS YOUR CONCERN?

21 MR. DETRE: WELL, TO SOME EXTENT. IT'S,
22 AGAIN, A LITTLE BIT -- IT'S A COMPLICATED IDEA AND
23 I DON'T WANT TO LEAVE THE CONSTRUCTION OPEN TO ANY
24 SORT OF MISINTERPRETATION.

25 WHEN WE SAY "TIMING," THE EXTERNAL CLOCK

1 WOULD BE RELATED TO THE INPUT AND OUTPUT TIMING.

2 IT WOULDN'T BE GOVERNING ALL ASPECTS OF
3 THE TIMING OF THE MEMORY DEVICE BECAUSE, FOR
4 EXAMPLE, THE TIMING OF THE DRAM CORE WOULD NOT BE
5 GOVERNED BY THE CLOCK.

6 IT WOULD -- IT WOULD STILL, YOU KNOW, AS
7 WE DISCUSSED AT THE TUTORIAL, IT WOULD STILL BE
8 FETCHING DATA AND GETTING IT TO THE SENSE
9 AMPLIFIERS AT OWN INTERNAL SPEED UNRELATED TO THE
10 CLOCK.

11 SO I THINK THE IDEA THAT I WAS TRYING TO
12 EXPRESS THAT THE OPERATION SHOULD BE SYNCHRONIZED
13 WITH THE REST OF THE SYSTEM IS AN IMPORTANT ONE.

14 IT'S NOT ALL ASPECTS OF THE TIMING OF THE
15 DRAM, BUT IT'S OPERATION SORT OF CONSIDERED IN
16 RELATION TO THE REST OF THE SYSTEM IS SYNCHRONIZED;
17 NAMELY, WHEN IT RECEIVES INPUTS FROM THE REST OF
18 THE SYSTEM AND WHEN IT OUTPUTS DATA.

19 THAT'S, THAT'S SYNCHRONIZED. THE
20 INTERFACE IS SYNCHRONIZED, ESSENTIALLY, BUT NOT ALL
21 ASPECTS OF THE OPERATION OF THE DEVICE WOULD BE.

22 THE COURT: ARE YOU TALKING ABOUT THE
23 INPUT/OUTPUT OPERATION?

24 MR. DETRE: I -- SO IT WOULD BE "A MEMORY
25 DEVICE SUCH THAT THE TIMING OF THE INPUT AND OUTPUT

1 OPERATIONS IS GOVERNED BY TIMING WITH RESPECT TO A
2 PART OF THE SYSTEM TO WHICH IT IS CONNECTED IS
3 GOVERNED BY AN EXTERNAL CLOCK"? IS THAT --
4 SOMETHING LIKE THAT, I THINK, WOULD --

5 THE COURT: OKAY. WELL, LET ME HEAR FROM
6 HYNIX.

7 MR. DETRE: THANK YOU, YOUR HONOR.

8 MR. BROWN: I HAVE TWO CONCERNS, YOUR
9 HONOR, AND THE FIRST ISSUE, AND I THINK THIS WAS
10 BRIEFED FAIRLY EXTENSIVELY, IS WHETHER ALL
11 INPUT/OUTPUT OPERATIONS OF THE DEVICE ARE GOVERNED
12 OR ARE PERFORMED WITH RESPECT TO AN EXTERNAL CLOCK,
13 OR WHETHER THERE'S SOME SUBSET OF OPERATIONS WHICH
14 IS GOVERNED BY, OF INPUT/OUTPUT OPERATIONS WHICH IS
15 GOVERNED BY AN EXTERNAL CLOCK. THAT'S THE FIRST
16 ISSUE.

17 IN RAMBUS'S PROPOSED DEFINITION, IT
18 BASICALLY REQUIRED ALL, BASICALLY ALL INPUT SIGNALS
19 AND ALL OUTPUT SIGNALS TO BE -- WELL, THEY SAID
20 "TRANSFERRED," BUT IN THIS CASE, TIMED WITH RESPECT
21 TO AN EXTERNAL CLOCK.

22 AND WE THINK THAT THAT IS TOO NARROW A
23 DEFINITION, THAT BASICALLY IF THERE ARE SOME
24 INPUT/OUTPUT OPERATIONS WHICH ARE TIMED WITH
25 RESPECT TO AN EXTERNAL CLOCK, AND THAT SHOULD BE

1 SUFFICIENT.

2 THE SECOND AREA OF CONCERN, AND I'M NOT
3 SURE WHETHER THIS WAS CLARIFIED WITH MR. DETRE'S,
4 WITH THE DISCUSSION YOU HAD WITH MR. DETRE, IS
5 THE -- IS WHAT WE MEAN BY "THE REST OF THE SYSTEM
6 TO WHICH THE DEVICE IS CONNECTED."

7 AND THE POSSIBLE ISSUE THERE, OR THE
8 POSSIBLE AMBIGUITY THERE IS THAT THERE ARE MANY
9 KINDS OF SYSTEMS THAT USE SYNCHRONOUS DRAMS, THAT
10 USE OTHER KINDS OF CHIPS THAT RUN ON MULTIPLE
11 CLOCKS.

12 AND A PENTIUM SYSTEM, LIKE A COMPUTER
13 SYSTEM, IS AN EXAMPLE.

14 THE PENTIUM BUS FROM THE PENTIUM TO THE
15 CHIPSET OPERATES AT EITHER 400 MEGAHERTZ OR 533
16 MEGAHERTZ DEPENDING ON HOW NEW YOUR SYSTEM IS.

17 BUT SOME OF THE OTHER COMPONENTS OF THE
18 SYSTEM, THAT IS, THE BUS BETWEEN THE CHIPSET AND
19 THE MEMORY, FOR EXAMPLE, MIGHT ONLY RUN AT 133
20 MEGAHERTZ.

21 SO THAT IF WE SAY -- IF IT'S CLEAR THAT
22 THE EXTERNAL CLOCK IS, OR THE EXTERNAL CLOCK IS
23 SOMETHING WHERE PART OF THE REMAINDER OF THE SYSTEM
24 -- OR AN EXTERNAL CLOCK TO SOME PART OF THE SYSTEM
25 TO WHICH THE DEVICE IS CONNECTED, THAT WOULD

1 PROBABLY CLARIFY THINGS RATHER THAN REQUIRE A
2 SYSTEM WHERE THE WHOLE -- POTENTIALLY REQUIRE A
3 SYSTEM WHERE THE WHOLE SYSTEM RUNS ON THE SAME
4 CLOCK.

5 AND ACTUALLY, I'M NOT SURE THERE IS A
6 PERSONAL COMPUTER SYSTEM IN EXISTENCE WHERE
7 EVERYTHING ACTUALLY RUNS ON THE SAME, WITH RESPECT
8 TO THE SAME CLOCK.

9 (PAUSE IN PROCEEDINGS.)

10 THE COURT: LET ME THROW OUT, AND MAYBE
11 YOU -- AGAIN, DON'T HESITATE TO CRITICIZE, I'M SURE
12 YOU WOULDN'T, BUT HOW ABOUT "A MEMORY DEVICE WHOSE
13 INPUT/OUTPUT OPERATIONS ARE GOVERNED BY AN EXTERNAL
14 CLOCK WHICH IS CONNECTED TO SOME PART OF THE REST
15 OF THE SYSTEM"?

16 MR. BROWN: OKAY. AND THEN I GUESS I
17 HAVE ONE OF THE SAME QUESTIONS. I THINK THAT WOULD
18 CERTAINLY TAKE CARE OF MY SECOND CONCERN.

19 MY FIRST CONCERN IS ON THE TIMING OF
20 INPUT/OUTPUT OPERATIONS. AGAIN, DOES THAT MEAN
21 THAT ALL INPUT AND OUTPUT OPERATIONS ARE TIMED WITH
22 RESPECT TO THE SAME EXTERNAL CLOCK, OR IS IT
23 SUFFICIENT IF SOME OF THE INPUT/OUTPUT OPERATIONS
24 ARE TIMED WITH RESPECT TO THAT EXTERNAL CLOCK?

25 THE COURT: I WAS THINKING, WHEN I WROTE

1 IT, AS ALL.

2 MR. BROWN: OKAY. THEN THAT WOULD -- IF
3 IT IS THAT YOU REQUIRE ALL OF THEM TO BE TIMED WITH
4 RESPECT TO THE EXTERNAL CLOCK, THEN I HAVE MORE TO
5 SAY.

6 THE COURT: OKAY.

7 MR. BROWN: OKAY. AND I THINK THAT THE
8 PLAIN MEANING OF THIS IS BASICALLY THAT A
9 SYNCHRONOUS, THAT "SYNCHRONOUS" JUST MEANS THAT
10 EVENTS ARE HAPPENING IN A TIMED RELATIONSHIP, OR IT
11 COULD BE AT THE SAME TIME, OR IT COULD BE A TIMED
12 RELATIONSHIP SUCH AS WE HAVE FOR THE TERM, THE
13 AGREED DEFINITION OF THE TERM "SYNCHRONIZED," THAT
14 IS, THAT IT HAS A KNOWN TIMING RELATIONSHIP.

15 BUT -- AND CERTAINLY THE PREFERRED
16 EMBODIMENT THAT IS IN THE PATENTS-IN-SUIT, BECAUSE
17 IT WORKS WITH A SYNCHRONOUS BUS, HAS -- THE INPUTS
18 AND OUTPUTS WITH RESPECT TO THAT SYNCHRONOUS BUS
19 ALL OCCUR WITH RESPECT TO WHATEVER CLOCK IS
20 GOVERNING THE OPERATION OF THAT BUS.

21 BUT THERE IS -- BUT THERE ARE DISCLOSURES
22 IN THE PATENT OF DEVICES, NOT NECESSARILY MEMORY
23 DEVICES, BUT OF DEVICES THAT CAN INTERFACE WITH TWO
24 DIFFERENT BUSES, ONE OF WHICH IS THE BUS OF THE
25 PREFERRED EMBODIMENT, THE NARROW MULTIPLEXED BUS;

1 AND ALSO DEVICES TO DIFFERENT KINDS OF BUSES, WHICH
2 MAY WELL RUN WITH DIFFERENT TIMING RELATIONSHIPS OR
3 WITH RESPECT TO A DIFFERENT EXTERNAL CLOCK.

4 SO THAT YOU COULD HAVE A DEVICE WHERE
5 THERE ARE TWO DIFFERENT BUS INTERFACES, FOR
6 EXAMPLE, AND ONE OF THEM IS TIMED WITH RESPECT TO
7 AN EXTERNAL CLOCK AND THE OTHER ONE IS EITHER NOT
8 TIMED WITH RESPECT TO AN EXTERNAL CLOCK OR IS TIMED
9 WITH RESPECT TO A DIFFERENT EXTERNAL CLOCK.

10 AND THERE ARE EXAMPLES OF THOSE DISCLOSED
11 IN THE SPECIFICATION. THE -- AND I MAY BE ABLE TO
12 FIND THAT RELATIVELY QUICKLY.

13 AND THIS IS LOOKING AT THE '152 PATENT,
14 AND I'M READING AT COLUMN 5, STARTING AT LINE 46.
15 THE PARAGRAPH STARTS, "VIRTUALLY ALL OF THE SIGNALS
16 NEEDED BY A COMPUTER SYSTEM CAN BE SENT OVER THE
17 BUS."

18 THE FOLLOWING STATEMENT IS "PERSONS
19 SKILLED IN THE ART RECOGNIZE THAT CERTAIN DEVICES,
20 SUCH AS C.P.U.'S, MAY BE CONNECTED TO OTHER SIGNAL
21 LINES AND POSSIBLY INDEPENDENT BUSES, FOR EXAMPLE,
22 A BUS TO AN INDEPENDENT CACHE MEMORY, IN ADDITION
23 TO THE BUS OF THIS INVENTION."

24 SO THAT THE PATENTS CONTEMPLATE THAT A,
25 THAT DEVICES COULD INTERFACE TO TWO DIFFERENT

1 BUSES, ONLY ONE OF WHICH IS THE BUS OF THE
2 PREFERRED EMBODIMENT, AND THOSE TWO BUSES, OR
3 MULTIPLE BUSES, COULD BE CLOCKED AT DIFFERENT, BY
4 DIFFERENT EXTERNAL CLOCKS, FOR EXAMPLE.

5 I GUESS IN SUMMARY, THE -- IN THIS
6 DEFINITION THAT BASICALLY IS YOUR PROPOSED
7 DEFINITION THAT WOULD REQUIRE ALL INPUT AND OUTPUT
8 OPERATIONS OF THE BUS TO BE TIMED WITH RESPECT TO A
9 SINGLE EXTERNAL CLOCK, THAT WOULD BE BASICALLY
10 READING IN UNNECESSARY LIMITATIONS FROM THE
11 PREFERRED EMBODIMENT.

12 THE COURT: ALL RIGHT. LET ME JUST TRY
13 ANOTHER ONE WITH YOU. "A MEMORY DEVICE WITH SOME
14 OR ALL OF THE INPUT/OUTPUT OPERATIONS GOVERNED BY
15 AN EXTERNAL CLOCK CONNECTED TO A PART OF THE REST
16 OF THE SYSTEM."

17 MR. BROWN: THAT WOULD BE ACCEPTABLE.

18 THE COURT: WHAT'S WRONG WITH THAT?

19 MR. DETRE: WELL, YOUR HONOR, THE MAIN
20 PROBLEM WITH IT IS THE "SOME OR ALL" PART.

21 THE COURT: OKAY. LET'S SAY I PUT
22 "MEMORY DEVICE WITH ALL OF THE INPUT/OUTPUT
23 OPERATIONS GOVERNED BY AN EXTERNAL CLOCK CONNECTED
24 TO A PART OF THE REST OF THE SYSTEM."

25 MR. DETRE: I THINK THERE SHOULD PROBABLY

1 STILL BE SOME SUGGESTION IN THERE THAT THE CLOCK
2 GOVERNS THE TIMING RELATIONSHIP OF THE PART WITH
3 RESPECT TO THAT PART OF THE SYSTEM TO WHICH IT
4 CONNECTS.

5 OTHERWISE I THINK, I THINK THAT WOULD BE
6 FINE.

7 CAN I ADDRESS THIS POINT ABOUT WHY IT
8 SHOULD BE ALL OR SUBSTANTIALLY ALL OF THE INPUT AND
9 OUTPUT --

10 THE COURT: ALL RIGHT. I'D LIKE TO GET A
11 DEFINITION YOU CAN LIVE WITH FIRST, AND THEN YOU
12 TELL ME WHY I SHOULD ADOPT IT.

13 MR. DETRE: OKAY. HOW DOES THIS SOUND,
14 YOUR HONOR: "A MEMORY DEVICE CONNECTED TO SOME
15 PART OF THE REST OF THE SYSTEM RECEIVING AN
16 EXTERNAL CLOCK THAT GOVERNS THE TIMING RELATIONSHIP
17 BETWEEN THE MEMORY DEVICE AND THAT PART OF THE
18 SYSTEM."

19 THE COURT: OKAY.

20 MR. DETRE: IF YOUR HONOR INCLUDES -- I
21 DIDN'T INCLUDE IT IN WHAT I JUST READ, BUT IF YOUR
22 HONOR INCLUDES THE IDEA OF INPUT/OUTPUT OPERATIONS
23 AND THE QUESTION IS WHETHER IT SHOULD BE SOME OR
24 ALL, I'M NOT SURE IF IT NEEDS TO BE ALL, BUT I
25 THINK IT NEEDS TO BE SUBSTANTIALLY ALL, AT LEAST,

1 AND THE REASON IS BECAUSE THE DEFINITION OF
2 SYNCHRONOUS THAT MR. BROWN PUT UP FROM SOME
3 DICTIONARIES IS NOT REALLY RELEVANT.

4 THE QUESTION ISN'T WHAT DOES SYNCHRONOUS
5 MEAN, BUT WHAT DOES A SYNCHRONOUS MEMORY DEVICE
6 MEAN?

7 YOU COULD HAVE, CERTAINLY, DEVICES THAT
8 PERFORM SOME OPERATIONS SYNCHRONOUSLY WITH SOME
9 TIMING SIGNALS THAT WOULD NOT, OVERALL, BE
10 CONSIDERED SYNCHRONOUS DEVICES BECAUSE A
11 SUBSTANTIAL NUMBER OF THEIR OPERATIONS ARE NOT
12 SYNCHRONOUS TO A, TO A TIMING SIGNAL.

13 THE COURT: WELL, LET ME ASK YOU, AND
14 MAYBE -- AGAIN, TELL ME IF I'M WRONG -- BUT DOES
15 THIS DEFINITION REALLY, OR CONSTRUCTION, BOIL DOWN
16 TO WHETHER WE'RE TALKING ABOUT ALL INPUT/OUTPUT
17 OPERATIONS, SUBSTANTIALLY ALL, OR SOME?

18 MR. DETRE: WELL, I THINK --

19 THE COURT: I MEAN, IS THAT THE ESSENTIAL
20 DIFFERENCE BETWEEN THE PARTIES?

21 MR. DETRE: I THINK THAT'S THE
22 SUBSTANTIAL DIFFERENCE BETWEEN THE PARTIES, YES,
23 YOUR HONOR.

24 YOU KNOW, IN OUR -- IN ONE OF OUR BRIEFS
25 WE GAVE A SORT OF SIMPLE-MINDED ANALOGY, BUT I

1 THINK IT'S AN IMPORTANT ANALOGY, THAT YOU WOULDN'T
2 SAY -- YOU WOULDN'T SAY A WAGON WAS A RED WAGON IF
3 IT HAD ONE RED STRIPE. IT HAS SOME RED IN IT, BUT
4 IT'S NOT A RED WAGON. A RED WAGON IS A WAGON
5 THAT'S SUBSTANTIALLY RED.

6 THE COURT: LET ME ASK YOU THIS, AND IT'S
7 ONE OF MY FAVORITE QUESTIONS.

8 IF THE CLAIM SAID "SUBSTANTIALLY ALL
9 INPUT/OUTPUT OPERATIONS," WOULD THE DEFINITION OF
10 "SUBSTANTIALLY" BE A CLAIM CONSTRUCTION ISSUE, OR
11 WOULD "SUBSTANTIALLY ALL INPUT/OUTPUT OPERATIONS"
12 BE A QUESTION OF INFRINGEMENT FOR THE JURY?

13 MR. DETRE: WELL, THAT'S A GOOD QUESTION,
14 YOUR HONOR, AND I AM NOT SURE OF THE ANSWER OFF THE
15 TOP OF MY HEAD.

16 THE COURT: IN OTHER WORDS, IF I USED
17 YOUR LANGUAGE OF "SUBSTANTIALLY," HAVE I JUST
18 CREATED ANOTHER CLAIM CONSTRUCTION ISSUE?

19 MR. DETRE: NO, YOUR HONOR, I DON'T THINK
20 SO. I THINK IT WOULD BE A QUESTION FOR THE JURY,
21 THINKING ABOUT IT.

22 THE ISSUE WOULD BE WHETHER THAT EXTERNAL
23 CLOCK WAS REALLY THE SIGNIFICANT ACTOR IN THE
24 TIMING OF THAT DEVICE, AND -- YOU KNOW, THERE MAY
25 BE SOME SMALL PART THAT IS NOT SYNCHRONIZED TO IT,

1 BUT I THINK THAT WOULD BE A JURY QUESTION.

2 THE COURT: OKAY.

3 MR. DETRE: I WOULD LIKE TO SHOW YOU A
4 LITTLE BIT OF DEPOSITION TESTIMONY FROM THE
5 DEPOSITION OF DAVID JOHNSON, WHO'S THE INVENTOR ON
6 AN INTEL PATENT THAT HYNIX HAS ASSERTED AS PRIOR
7 ART IN THIS CASE.

8 AND IT'S NOT -- THAT PARTICULAR PATENT IS
9 NOT IN THESE PROCEEDINGS TODAY OR TOMORROW, BUT
10 MR. JOHNSON IS A PERSON OF SKILL IN THE ART WITH NO
11 AX TO GRIND IN THIS CASE, AND, IN FACT, IT WAS
12 HYNIX WHO NOTICED HIS DEPOSITION, AND THIS IS WHAT
13 MR. JOHNSON SAID ABOUT SYNCHRONOUS DEVICES.

14 IF WE COULD PULL UP NUMBER 57?

15 I ASKED HIM, "WHAT DO YOU MEAN BY A
16 SYNCHRONOUS BUS?"

17 AND HE SAID THAT "ALL COMPONENTS
18 CONNECTED TO THAT BUS SHARED A COMMON CLOCK AND
19 THAT ALL INFORMATION WAS DRIVEN OR RECEIVED OFF OF
20 THOSE CLOCK EDGES."

21 AND THEN I ASKED HIM, "AND I BELIEVE YOU
22 SAID THAT THE SLAD BUS WAS AN ASYNCHRONOUS BUS; IS
23 THAT RIGHT?"

24 AND THE SLAD BUS WAS THE BUS IN THIS
25 PATENT THAT CONNECTED A MEMORY CONTROLLER CALLED AN

1 MCU TO A SET OF STANDARD ASYNCHRONOUS DRAMS.

2 AND HE SAID, "I DON'T RECALL -- I DON'T
3 RECALL WHAT MY ANSWER WAS, BUT THE MEMORY CONTROL
4 UNIT IS A SYNCHRONOUS DEVICE, SO EVERYTHING IT SENT
5 OR RECEIVED WAS OFF OF THE CLOCK EDGES. THE MEMORY
6 COMPONENTS DID NOT RECEIVE A CLOCK, AND SO,
7 THEREFORE, IT'S SORT OF A STRANGE INTERFACE IN THAT
8 SENSE."

9 QUESTION: "IS THAT -- WHAT YOU JUST SAID
10 IN YOUR LAST ANSWER, IS THAT YOUR UNDERSTANDING OF
11 A SYNCHRONOUS DEVICE, ONE IN WHICH EVERYTHING SENT
12 OR RECEIVED IS SAMPLED OFF THE CLOCK EDGES?"

13 AND AFTER OBJECTION, MR. JOHNSON
14 ANSWERED, "YES, THAT'S MY UNDERSTANDING."

15 IN OUR PAPERS, WE ALSO CITE TO THE IEEE'S
16 DICTIONARY DEFINITION OF A SINGLE COMPUTER AS A
17 COMPUTER IN WHICH EACH EVENT OR THE PERFORMANCE OF
18 EACH OPERATION STARTS AS A RESULT OF A SIGNAL
19 GENERATED OFF A CLOCK.

20 CLEARLY AS USED BY PEOPLE OF SKILL IN THE
21 ART, JUST HAVING CERTAIN INPUTS OR OUTPUTS BEING
22 SYNCHRONOUS TO A CLOCK IS NOT SUFFICIENT FOR IT TO
23 BE CONSIDERED A SYNCHRONOUS DEVICE.

24 THE COURT: OKAY. THANK YOU.

25 MR. DETRE: THANK YOU, YOUR HONOR.

1 THE COURT: WHAT'S YOUR REACTION TO
2 "SUBSTANTIALLY ALL"?

3 MR. BROWN: I THINK IT JUST RAISES
4 ANOTHER CLAIM CONSTRUCTION ISSUE, AND IT'S
5 PERFECTLY ILLUSTRATED BY THE DEPOSITION TESTIMONY
6 THAT MR. DETRE JUST SHOWED YOU BECAUSE THE MCU IN
7 THAT CASE -- AND THIS IS A PIECE OF PRIOR ART THAT
8 WE'RE GOING TO PROBABLY DISCUSS SIGNIFICANTLY LATER
9 ON -- THE MCU IN THAT CASE WAS CONNECTED TO TWO
10 BUSES. MR. DETRE ASKED THE WITNESS ABOUT THE SLAD
11 BUS, OKAY, AND SAID THAT THAT WAS AN ASYNCHRONOUS
12 BUS.

13 FOR TODAY'S PURPOSES, I'LL ACCEPT THAT
14 THAT'S TRUE.

15 THE MCU IN THAT CASE WAS ALSO CONNECTED
16 TO SOMETHING CALLED AN MACD BUS. OKAY, THAT MCU
17 WAS CONNECTED TO TWO DIFFERENT BUSES, AND THE
18 SYNCHRONOUS BUS THAT MR. JOHNSON WAS BEING ASKED
19 ABOUT WAS THE MACD BUS.

20 SO WE HAVE ONE DEVICE THAT'S CONNECTED TO
21 TWO DIFFERENT BUSES, ONE OF WHICH IS SYNCHRONOUS,
22 ONE OF WHICH IS NOT SYNCHRONOUS, OR ONE OF WHICH IS
23 ASYNCHRONOUS.

24 AND NOW THE QUESTION THEN BECOMES, WELL,
25 IS THAT MCU THAT'S CONNECTED TO TWO DIFFERENT

1 BUSES, IS THAT A SYNCHRONOUS DEVICE?

2 OKAY. AND I THINK THAT, THAT THE USE OF
3 THE TERM "SUBSTANTIALLY ALL" JUST REALLY DOESN'T
4 ANSWER THAT QUESTION.

5 THE COURT: GIVE ME AN EXAMPLE, AND MAYBE
6 TO A CERTAIN EXTENT YOU JUST HAVE, BUT OF A DEVICE
7 WHERE, SAY, 90 PERCENT OF THE OPERATIONS ARE
8 SYNCHRONOUS AND 10 PERCENT ARE NOT.

9 MR. BROWN: WELL, I'M NOT SURE IF IT'S
10 90-10 PERCENT, BUT I CAN TELL YOU, GIVE YOU AN
11 EXAMPLE, AND THIS IS ANOTHER REAL EXAMPLE FROM THE
12 PRIOR ART, AND THAT IS THERE'S A SPECIES OF DRAM
13 THAT'S KNOWN AS A VIDEO RAM, OKAY, AND IT HAS
14 WHAT'S KNOWN AS TWO PORTS TO IT. IT HAS A RANDOM
15 ACCESS PORT ON ONE SIDE AND IT HAS A SERIAL ACCESS
16 PORT ON THE OTHER.

17 AND THE PURPOSE OF A VIDEO RAM, WHICH
18 THERE IS ONE PATENT WHICH IS CITED IN THE PRIOR ART
19 SECTION OF THE PATENTS-IN-SUIT, AND IT'S -- I DON'T
20 REMEMBER THE NUMBER, BUT THE NAME OF THE INVENTOR
21 THAT'S CITED IS A PERSON NAMED VOSS, V-O-S-S.

22 BUT THERE IS WHAT'S KNOWN AS A SERIAL
23 PORT, AND THE SERIAL PORT IS USED TO TAKE THE, TO
24 TAKE INFORMATION FROM THE MEMORY ARRAY AND SEND IT
25 TO A VIDEO DISPLAY DEVICE, LIKE THIS (INDICATING).

1 OKAY. AND THE VIDEO DISPLAY DEVICE
2 BASICALLY WORKS ON A CLOCK; THAT IS -- WELL, NOT
3 THIS DEVICE, AN LCD DEVICE, BUT THE OLD KIND, THE
4 CRT WORKED ON A CLOCK WHERE IT SCANNED A BEAM
5 ACROSS THE SCREEN ON A REGULAR CLOCK, AND IT ALSO
6 WENT DARK OR LIGHT AT EACH POINT, AT REGULAR POINTS
7 ALONG, ALONG THE DISPLAY.

8 SO THAT IN A VIDEO RAM WHICH USED TO BE
9 USED TO, TO BASICALLY BE BETWEEN THE CHIPSET AND
10 THE, A CRT, FOR EXAMPLE, THERE WAS A SERIAL PORT
11 WHERE THE DATA CAME OUT AT A, UNDER CONTROL OF A
12 REGULAR CLOCK THAT MR. DETRE WOULD AGREE WOULD BE
13 AN EXTERNAL CLOCK.

14 IT HAS A VERY PERIODIC SIGNAL AND IT HAS
15 AN EXTERNAL PORT WHICH IS TIMED WITH RESPECT TO AN
16 EXTERNAL CLOCK.

17 NOW, IT ALSO HAS A RANDOM ACCESS PORT,
18 AND THE RANDOM ACCESS PORT, FOR EXAMPLE, WAS
19 TYPICALLY OPERATED WITH WHAT MR. DETRE WILL SAY ARE
20 ASYNCHRONOUS SIGNALS, LIKE RAS/CAS STROKES, THE
21 WRITE ENABLE SIGNAL SO THAT YOU COULD WRITE FROM
22 ONE END OF, ONE SIDE OF THE MEMORY THROUGH WHAT IS,
23 WHAT WOULD BE CALLED THE CONVENTIONAL DRAM
24 INTERFACE, AND YOU COULD INPUT AND OUTPUT DATA FROM
25 THE SERIAL PART OF THE MEMORY WITH RESPECT TO A

1 PERIODIC EXTERNAL CLOCK.

2 AND THAT'S ANOTHER EXAMPLE, A FAIRLY
3 SPECIFIC EXAMPLE, I THINK, OF A SITUATION WHERE YOU
4 HAVE, IN THIS CASE, TWO BUSES CONNECTED TO THE
5 DEVICE, ONE OF WHICH IS SYNCHRONOUS BECAUSE IT'S
6 CONTROLLED, THE PART BETWEEN THE DRAM AND THE
7 DISPLAY IS CONTROLLED BY AN EXTERNAL CLOCK, AND THE
8 PART BETWEEN THE DRAM AND PERHAPS THE PROCESSOR OR
9 THE CHIPSET IS WHAT WOULD BE KNOWN AS A
10 CONVENTIONAL BUS THAT OPERATES ON CAS AND RAS
11 STROKES FOR ITS TIMING.

12 THE COURT: ALL RIGHT.

13 MR. BROWN: AND THEN I DON'T KNOW WHETHER
14 THAT'S -- AND I DON'T KNOW WHETHER, IN THAT CASE,
15 WHETHER 90 PERCENT OF THE WORK IS DONE PUTTING DATA
16 OUT TO THE, TO THE SCREEN AND 10 PERCENT IS DONE TO
17 THE, AT THE OTHER END. I JUST DON'T KNOW WHAT THE
18 RELATIVE NUMBERS WOULD BE.

19 THE COURT: WHAT INPUT/OUTPUT -- HOW MUCH
20 OR WHAT PERCENTAGE OR HOW DO YOU DESCRIBE THE
21 AMOUNT OF INPUT AND OUTPUT OPERATIONS THAT WOULD
22 HAVE TO BE CONTROLLED BY --

23 MR. BROWN: OR TIMED WITH RESPECT TO A
24 CLOCK?

25 THE COURT: -- TIMED FOR IT TO BE

1 SYNCHRONOUS VERSUS ASYNCHRONOUS, BECAUSE THAT SEEMS
2 TO BE -- MAYBE YOU DISAGREE, BUT IT SEEMS TO ME
3 THAT THE WHOLE DISPUTE IS WHETHER IT'S --

4 MR. BROWN: WHETHER IT'S SOME PART OR
5 WHETHER IT'S THE WHOLE THING.

6 THE COURT: RIGHT.

7 MR. BROWN: YEAH. AND IN THE -- I THINK
8 THAT IF THERE IS ANY SUBSTANTIAL PART OF THE DEVICE
9 THAT IS TIMED, YOU KNOW, ANY SIGNIFICANT PART OF
10 THE DEVICE THAT IS TIMED WITH RESPECT TO AN
11 EXTERNAL CLOCK, THAT SHOULD BE SUFFICIENT.

12 THE COURT: OKAY. I WOULD LIKE, IF YOU
13 COULD DO IT QUICKLY, JUST TO HEAR YOUR TWO EXPERTS
14 ANSWER THAT QUESTION.

15 MR. BROWN: HAVE YOU BEEN FOLLOWING THE
16 DISCUSSION, MR. TAYLOR?

17 MR. TAYLOR: YEAH. I JUST WANTED TO ASK
18 A QUESTION.

19 DO YOU WANT ME TO COME UP THERE?

20 MR. BROWN: YES.

21 THE COURT: SURE.

22 DO YOU WANT ME TO SWEAR THEM, OR NOT?

23 MR. TAYLOR: I BEG YOUR PARDON?

24 THE COURT: I'M JUST ASKING THE PARTIES
25 WHETHER THEY WANT YOU TO BE SWORN IN OR NOT.

1 MR. DETRE: I DON'T THINK THAT'S
2 NECESSARY.

3 MR. BROWN: THAT'S NOT NECESSARY.

4 THE COURT: ALL RIGHT.

5 I'M TRYING TO DETERMINE HOW YOU
6 DISTINGUISH, IF YOU DO, BY THE -- AS I UNDERSTAND
7 THE DISPUTE BETWEEN THE PARTIES, IT BOILS DOWN TO
8 WHAT ARE THE INPUT/OUTPUT OPERATIONS THAT ARE
9 GOVERNED OR TIED BY AN EXTERNAL CLOCK, AND ONE SIDE
10 SAYS ALL AND THE OTHER SIDE SAYS PART.

11 I'M TRYING TO FIGURE OUT A LINE WHERE YOU
12 CAN DISTINGUISH AN ASYNCHRONOUS MEMORY DEVICE FROM
13 A SYNCHRONOUS MEMORY DEVICE.

14 MR. TAYLOR: IN GENERAL, THERE'S NO
15 NUMBER OF OPERATIONS OR NUMBER OF INPUT/OUTPUT PINS
16 THAT YOU COULD SAY GIVES YOU THE DIVIDING LINE
17 BETWEEN SYNCHRONOUS AND ASYNCHRONOUS.

18 IN OTHER WORDS, WITH RESPECT TO DRAMS,
19 OLD DRAMS AND NEWER DRAMS, ALL OF THE OPERATIONS
20 FOR THE OLDER PARTS, THE MORE CONVENTIONAL DRAMS,
21 AND THE NEWER PARTS, WHAT ARE CALLED SYNCHRONOUS
22 DRAMS, OPERATE WITH RESPECT TO A SYSTEM CLOCK FROM
23 WHICH THE TIMING SIGNALS FOR CONVENTIONAL DRAM ARE
24 DERIVED.

25 THERE IS NO SUCH THING AS JUST COMPLETELY

1 ASYNCHRONOUS WITHOUT ANY CONSIDERATION OF TIMING
2 TAKING PLACE IN THE USE OF EITHER A CONVENTIONAL
3 DRAM OR A SYNCHRONOUS DRAM.

4 THE RAS AND CAS SIGNALS THAT ARE APPLIED
5 TO THE CONVENTIONAL DRAMS ARE DERIVED FROM A SYSTEM
6 CLOCK AND THEY ARE APPLIED TO THE CONVENTIONAL DRAM
7 AND THE OUTPUT COMES OUT OF THE CONVENTIONAL DRAM
8 WITH RESPECT TO THAT SYSTEM CLOCK.

9 THE DIFFERENCE BETWEEN A CONVENTIONAL
10 DRAM AND A SYNCHRONOUS DRAM IS THAT THE PRIMARY
11 SYSTEM CLOCK IS APPLIED DIRECTLY TO A SYNCHRONOUS
12 DRAM AND ONLY ITS DERIVATIVES ARE APPLIED TO THE
13 OLDER CONVENTIONAL DRAMS.

14 SO I DO NOT SEE IT AS AN ISSUE OF HOW
15 MANY OPERATIONS OR HOW MANY PINS DOES IT TAKE
16 BEFORE YOU CAN DECIDE BETWEEN SYNCHRONOUS AND
17 ASYNCHRONOUS.

18 ALL OF THE OLDER PARTS AND THE NEWER
19 PARTS ALL OPERATE SYNCHRONOUSLY WITH RESPECT TO AN
20 EXTERNAL CLOCK.

21 THE DATA WHICH IS MOVED INTO A
22 CONVENTIONAL DRAM AND OUT OF A CONVENTIONAL DRAM IS
23 NOT JUST WITHOUT RESPECT TO TIMING. THAT TIMING IS
24 SET BY THE SYSTEM CLOCK.

25 THE INPUT AND OUTPUTTING OF DATA IN THE

1 SYNCHRONOUS DRAMS, LIKE THE RAMBUS PART, DIFFER
2 ONLY IN THAT YOU HAVE THE SYSTEM CLOCK APPLIED
3 DIRECTLY TO THE PART RATHER THAN ITS DERIVATIVE.

4 THE COURT: AND BY "DERIVATIVE," YOU
5 MEAN?

6 MR. TAYLOR: SUCH AS RAS AND CAS.

7 RAS AND CAS ARE NOT JUST APPLIED TO A
8 CONVENTIONAL DRAM WITHOUT ANY CONSIDERATION OF THE
9 SYSTEM CLOCK.

10 RAS AND CAS ARE APPLIED TO A CONVENTIONAL
11 DRAM AS A DERIVATIVE CLOCK OF THE SYSTEM CLOCK SO
12 THAT THE OPERATION OF DATA MOVING INTO AND OUT OF
13 THE DRAM, INTO AND OUT OF THE C.P.U. IS WITH
14 RESPECT TO THE SYSTEM CLOCK.

15 IT DOESN'T JUST HAPPEN RANDOMLY.

16 THE COURT: OKAY. THANK YOU.

17 MR. TAYLOR: YOU'RE WELCOME.

18 MR. MURPHY: YOUR HONOR, I THINK THAT THE
19 POINT THAT IS IMPORTANT TO RECOGNIZE HERE, AS
20 MR. TAYLOR TALKED ABOUT, IS THE FACT THAT IN THE
21 PRIOR PARTS, IN THE OLDER PARTS, NO CLOCK, NO
22 SYSTEM CLOCK WAS APPLIED TO THE ASYNCHRONOUS DRAMS;
23 THAT RAS AND CAS WERE DEVELOPED BY A SECONDARY
24 CHIP, A MEMORY CONTROL CHIP, WHICH UNIQUELY HAD TO
25 ADJUST THE TIMING SO THAT THOSE OLDER PARTS WOULD

1 WORK.

2 AND THIS WAS A VERY TRICKY ARRANGEMENT TO
3 DO. IN ADDITION TO HAVING TO -- I HAVE NO, NO --
4 WELL, LET'S JUST SAY THE UNDERSTANDING HERE WAS
5 THAT THE MEMORY CONTROL UNIT RECEIVED THE SYSTEM
6 CLOCK AND THEN, BECAUSE IT UNDERSTOOD THE MEMORY
7 MODULES, FOR INSTANCE, THAT IT HAD TO DEAL WITH AND
8 THE TYPES OF MEMORY PRODUCTS THAT WERE IN THOSE
9 MODULES, IT WOULD UNIQUELY ADJUST THE TIMINGS OF
10 RAS, CAS, WE AND THE OTHER SIGNALS SO THAT THEY
11 WOULD APPEAR CORRECTLY AT THE DEVICES SO THE
12 DEVICES WOULD WORK APPROPRIATELY.

13 SO IF YOU LOOK AT THAT ARRANGEMENT OF
14 SYSTEMS, WHAT YOU WOULD SEE IS THAT RAS AND CAS,
15 FOR INSTANCE, IN ONE BANK OF A MODULE WOULD APPEAR
16 AND THAT MODULE WOULD BE ADDRESSED AND DATA WOULD
17 COME OUT, AND THEN PERHAPS A DIFFERENT MODULE WOULD
18 GET ITS RAS AND CAS SIGNALS AND THEN THAT WOULD
19 APPEAR AND THOSE DEVICES WOULD BRING THEIR DATA
20 OUT.

21 AND THE RANDOMNESS THERE DEPENDS UPON
22 WHERE THE DATA IS LOCATED.

23 SO THESE MODULES DID NOT NECESSARILY
24 RECEIVE WHAT IS CONSIDERED BY THE PEOPLE BUILDING
25 THE SYSTEMS AS A SYSTEM CLOCK. THEY RECEIVED

1 RANDOM RAS AND CAS SIGNALS TO PULL THE DATA OUT OF
2 A PARTICULAR SET OF CHIPS TO WORK IN THAT
3 OPERATION.

4 NOW, AS THE DEVICES MATURED, PEOPLE FOUND
5 NEEDS TO MAKE DEVICES THAT HAD DIFFERENT WAYS OF
6 GETTING THE OUTPUT DATA OUT OF THE MEMORY DEVICES,
7 AND THE ONE TALKED ABOUT HERE WAS A DUAL PORT
8 ARRANGEMENT WHERE AN ASYNCHRONOUS NATURE, WHICH
9 WOULD INTERFACE VERY WELL TO THE MEMORY CONTROLLER
10 CHIP, WAS APPLIED ON ONE PORT SO THAT THIS WAS THE
11 STANDARD ASYNCHRONOUS RAS AND CAS SET OF TIMINGS.

12 AND YET, BECAUSE OF THE DISPLAY DEVICE
13 REQUIREMENTS, WHICH NEEDED A VERY WELL CONTROLLED,
14 BASICALLY DOT CLOCK, PEOPLE CHANGED THE OUTPUT
15 SECTION OF THAT AND THAT SECTION WAS DONE
16 SYNCHRONOUSLY TO THE REQUIREMENTS OF THE DEVICE
17 THAT IT TALKED TO.

18 THE DIFFERENCE THAT YOU SEE HERE WHEN YOU
19 TALK ABOUT A SYNCHRONOUS MEMORY DEVICE AND THE
20 DEVICES THAT ARE TALKED ABOUT IN THE PREFERRED
21 EMBODIMENT IN THE PATENT IS THAT THIS DEVICE IS
22 SPECIFICALLY TALKED ABOUT AS WORKING WITH A BUS
23 THAT IS BASICALLY COMPLETELY SYNCHRONOUS.

24 THE NATURE OF THIS DEVICE, AND THE NATURE
25 OF MOST DEVICES THAT WORK IN A SYNCHRONOUS SYSTEM

1 IS THAT ALL OF THE SIGNALS ARE RECOGNIZED IN THE
2 SYSTEM BASED UPON THE SYSTEM CLOCK, AND IF YOU
3 HAPPEN TO HAVE SOME SIGNALS THAT ARE NOT RECOGNIZED
4 ON THE SYSTEM CLOCK, THEN THEY HAVE TO BE HANDLED
5 VERY UNIQUELY.

6 THE COURT: OKAY. WHAT DID -- I'M SORRY.
7 I'VE FORGOTTEN THE NAMES.

8 MR. MURPHY: ROBERT MURPHY.

9 THE COURT: AND YOU ARE, SIR?

10 MR. TAYLOR: DAVID TAYLOR.

11 THE COURT: WHAT DID MR. TAYLOR,
12 DR. TAYLOR, SAY WITH WHICH YOU DISAGREE, IF
13 ANYTHING?

14 MR. MURPHY: THE, THE -- I THINK THE
15 BIGGEST DIFFERENCE THAT I HAVE IS THAT WHEN HE
16 TALKED ABOUT THE DERIVATIVE CLOCKS BEING APPLIED,
17 THIS IS THE RAS AND THE CAS, I DON'T BELIEVE ONE OF
18 ORDINARY SKILL IN THE ART WOULD CALL THOSE
19 SYNCHRONOUS CLOCKS TO WHAT HAD BEEN COMMONLY CALLED
20 ASYNCHRONOUS DEVICES PRIOR.

21 THE COURT: OKAY. THANK YOU.

22 DO YOU HAVE ANY COMMENTS ABOUT WHAT HE
23 JUST SAID?

24 MR. TAYLOR: I THINK IT'S PROBABLY JUST
25 AS IMPORTANT WHAT HE DIDN'T SAY. HE DIDN'T SAY

1 THAT THE MOVEMENT OF DATA INTO AND OUT OF
2 CONVENTIONAL DRAMS WAS NOT A SYNCHRONOUS OPERATION.

3 "SYNCHRONOUS" SIMPLY MEANS THAT THERE'S A
4 TIMING RELATIONSHIP BETWEEN THE SYSTEM CLOCK AND
5 THE MOVEMENT OF DATA INTO AND OUT OF ANY PART OF
6 THE SYSTEM, WHETHER OR NOT IT BE THE MEMORY
7 CONTROLLER OR THE DRAMS OR ANY OTHER PART OF THE
8 SYSTEM.

9 THE MOVEMENT OF DATA INTO AND OUT OF
10 CONVENTIONAL DRAMS AND THE MOVEMENT OF DATA INTO
11 AND OUT OF THE SYNCHRONOUS DRAMS ARE ALL WITH
12 RESPECT TO THE SYSTEM CLOCK.

13 THERE IS NO SUCH THING AS THE RANDOM
14 MOVEMENT OF DATA THAT HE ALLUDED TO. ALL OF THAT
15 MOVEMENT HAS TO BE WITH RESPECT TO THE SYSTEM
16 CLOCK.

17 EVEN MR. JOHNSON, WHO RAMBUS JUST
18 REFERRED TO, IN DISCUSSING THE DIFFERENCE BETWEEN
19 SYNCHRONOUS AND ASYNCHRONOUS ONLY MADE THE
20 DISTINCTION THAT A SYNCHRONOUS PART HAS THE SYSTEM
21 CLOCK APPLIED DIRECTLY TO IT, AND THAT ANY OTHER
22 PART OF THE SYSTEM WHICH DOES NOT HAVE THE SYSTEM
23 CLOCK APPLIED DIRECTLY TO IT CAN BE CONSIDERED TO
24 BE ASYNCHRONOUS.

25 BUT THAT DOES NOT MEAN THAT THERE IS NOT

1 A SYNCHRONOUS NATURE BETWEEN ALL OF THE PARTS OF
2 THE SYSTEM. THERE SIMPLY MUST BE.

3 THE COURT: OKAY. I THINK WE NEED TO
4 MOVE ON.

5 MR. DETRE: YOUR HONOR, WHEN MR. BROWN
6 WAS TALKING ABOUT MR. JOHNSON'S TESTIMONY, I THINK
7 HE MISUNDERSTOOD IT, AND IF I COULD HAVE ONE
8 MINUTE, I COULD CLARIFY THAT.

9 THE COURT: ALL RIGHT.

10 MR. DETRE: COULD WE PULL UP NUMBER 57
11 AGAIN?

12 THE SECOND QUESTION AND ANSWER, I ASKED
13 MR. JOHNSON WHETHER THE SLAD WAS AN ASYNCHRONOUS
14 BUS, AND HE SAID HE DOESN'T RECALL WHAT HIS ANSWER
15 WAS, BUT THE MEMORY CONTROL UNIT IS A SYNCHRONOUS
16 DEVICE, SO EVERYTHING IT SENT OR RECEIVED WAS OFF
17 OF THE CLOCK EDGES, WHETHER IT WAS THE MACD BUS
18 THAT MR. BROWN WAS TALKING ABOUT OR THE SLAD BUS.

19 THE MEMORY COMPONENTS ON THE OTHER END OF
20 THE SLAD BUS DID NOT RECEIVE A CLOCK, AND SO
21 THEREFORE, IT'S SORT OF A STRANGE INTERFACE IN THAT
22 SENSE.

23 BUT HE DID NOT SUGGEST THAT THE MEMORY,
24 THAT THE SYNCHRONOUS DEVICE HE WAS TALKING ABOUT,
25 THE MEMORY CONTROL UNIT, WAS SENDING THINGS ONTO

1 THE SLAD BUS WITHOUT REFERENCE TO A CLOCK.

2 THE COURT: ALL RIGHT. WHAT TERM DO YOU
3 WANT TO GO TO? I GUESS WE HAVE NEXT, WAS IT
4 BLOCKS, YEAH, BLOCK SIZE, I THINK.

5 MR. DETRE: YOUR HONOR, I THINK THAT WE
6 HAD, AMONG OURSELVES, DECIDED THAT WE WOULD NEXT
7 ADDRESS FIRST AND SECOND EXTERNAL CLOCKS.

8 THE COURT: ALL RIGHT. OKAY.

9 MR. DETRE: AND THE MAIN DIFFERENCE
10 BETWEEN THE PARTIES HERE, WE'VE AGREED ON THE
11 DEFINITION OF EXTERNAL CLOCK.

12 CAN YOU PULL UP NUMBER 46?

13 THAT'S A PERIODIC SIGNAL FROM A SOURCE
14 EXTERNAL TO THE DEVICE TO PROVIDE TIMING
15 INFORMATION.

16 AND IF WE COULD PULL UP NUMBER 47, WHICH
17 HAS THE PARTIES' PROPOSED CONSTRUCTIONS FOR SECOND
18 EXTERNAL CLOCK?

19 THE MAIN DIFFERENCE IS THAT RAMBUS SAID
20 THAT A FIRST EXTERNAL CLOCK WAS SIMPLY AN EXTERNAL
21 CLOCK, AND THE SECOND ONE WAS ANOTHER EXTERNAL
22 CLOCK, WHILE HYNIX, AS IN YOUR TENTATIVE
23 CONSTRUCTION, YOUR HONOR, HAS IT THAT THE SECOND
24 EXTERNAL CLOCK MUST PROVIDE SECOND TIMING
25 INFORMATION THAT IS DIFFERENT FROM THE FIRST TIMING

1 INFORMATION PROVIDED BY THE FIRST EXTERNAL CLOCK.

2 AND THIS WAS ALSO THE CONSTRUCTION OF
3 THE --

4 THE COURT: OF THE EASTERN DISTRICT.

5 MR. DETRE: -- EASTERN DISTRICT OF
6 VIRGINIA, AND AS YOUR HONOR HAS PREVIOUSLY RULED IN
7 CONNECTION WITH RAMBUS'S MOTION TO VACATE, THERE
8 WAS NO COLLATERAL ESTOPPEL EFFECT FROM THE EASTERN
9 DISTRICT OF VIRGINIA.

10 THE COURT: OH, I AGREE.

11 MR. DETRE: NOW, WHEN FIRST AND SECOND
12 ARE USED IN PATENT CLAIMS, THEY ARE TO BE
13 UNDERSTOOD SIMPLY AS LABELS TO DISTINGUISH ONE
14 INSTANCE OF AN ELEMENT IN THE CLAIM FROM ANOTHER.

15 BUT IT DOESN'T -- THOSE LABELS DON'T
16 PROVIDE ANY FURTHER MEANING THAN THAT, AND A RECENT
17 FEDERAL CIRCUIT CASE IS INSTRUCTIVE IN THAT, IN
18 THAT CASE, WHICH ISSUED AFTER THE CLAIM
19 CONSTRUCTION BRIEFING IN THIS CASE, 3M INNOVATIVE
20 PROPERTIES COMPANY VERSUS AVERY DENNISON CORP., 350
21 F.3D 1365, THE COURT WAS CONSIDERING A CLAIM THAT
22 CALLED FOR AT LEAST ONE SURFACE THAT HAS A MULTIPLE
23 EMBOSSED PATTERN HAVING A FIRST EMBOSSED PATTERN
24 AND A SECOND EMBOSSED PATTERN.

25 AND THE DISTRICT COURT HAD DECIDED THAT

1 THAT LANGUAGE, FIRST AND SECOND, MEANT THAT THE
2 PATTERNS HAD TO BE CREATED SEQUENTIALLY.

3 AND THIS IS WHAT THE FEDERAL CIRCUIT
4 SAID.

5 IF WE COULD PULL UP NUMBER 55.

6 "THE DISTRICT COURT ERRED WHEN IT DEFINED
7 THE TERM 'MULTIPLE EMBOSSED PATTERNS' TO INCLUDE A
8 LIMITATION THAT THE PATTERNS BE CREATED
9 SEQUENTIALLY. THE USE OF THE TERMS 'FIRST' AND
10 'SECOND' IS A COMMON PATENT-LAW CONVENTION TO
11 DISTINGUISH BETWEEN REPEATED INSTANCES OF AN
12 ELEMENT OR LIMITATION."

13 AND THEN IT CITES A COUPLE OF OTHER
14 CASES.

15 NOW --

16 THE COURT: LET ME ASK YOU TWO QUESTIONS.
17 ONE IS, CAN YOU HYPOTHETICALLY THINK OF A SITUATION
18 WHERE THE TWO CLOCK SIGNALS WOULD PROVIDE THE SAME
19 TIMING INFORMATION; AND SECONDLY, WHERE IN THE
20 SPECIFICATION IS THERE SUPPORT FOR THAT?

21 MR. DETRE: YES, YOUR HONOR, I CAN GIVE
22 YOU AN EXAMPLE FROM THE SPECIFICATION WHICH I THINK
23 ANSWERS BOTH QUESTIONS.

24 IN THE SPECIFICATION, THE -- THERE'S A
25 PREFERRED CLOCK DISTRIBUTION SCHEME THAT'S

1 DESCRIBED AS AN EARLY CLOCK SIGNAL THAT'S SENT BY A
2 CLOCK GENERATOR, AND THAT CLOCK LOOPS AROUND AND
3 COMES BACK AS A LATE CLOCK SIGNAL, AND EACH DEVICE
4 ON THE BUS RECEIVES BOTH THE EARLY CLOCK AND THE
5 LATE CLOCK, TWO CLOCK SIGNALS, AND FINDS THE
6 MID-POINT BETWEEN THEM AND THAT'S GENERATED IN EACH
7 DEVICE AND GOVERNS THE OPERATIONS OF EACH DEVICE.

8 AND THEN -- BUT THERE CAN BE DEVICES THAT
9 ARE RIGHT AT THE TURN-AROUND POINT WHEN THE FIRST,
10 WHEN THE EARLY CLOCK AND THE LATE CLOCK ARE
11 ESSENTIALLY IDENTICAL CLOCK SIGNALS, ARE IDENTICAL
12 CLOCK SIGNALS, AND IN THAT CASE, THE DEVICE
13 SITUATED AT THAT POINT WILL RECEIVE TWO CLOCK
14 SIGNALS. IT'LL STILL GET TWO CLOCK SIGNALS, BUT
15 THEY'LL BE IDENTICAL. THEY'RE PROVIDING THE SAME
16 TIMING INFORMATION IN THAT CASE.

17 AND WE HAVE A LITTLE BIT OF MR. TAYLOR'S
18 DEPOSITION IN WHICH HE EXPLAINS THIS.

19 IF WE COULD PLAY THAT AT PAGE 73?

20 (WHEREUPON, A VIDEOTAPE WAS PLAYED IN
21 OPEN COURT OFF THE RECORD.)

22 MR. DETRE: AND I WOULD ALSO LIKE TO
23 POINT OUT, YOUR HONOR, THAT IN THIS CASE, THIS IDEA
24 THAT -- AND AS WE'VE SEEN, THE SPECIFICATION, IN
25 FACT, INCLUDES A SPECIAL CASE WHERE THE TWO CLOCKS

1 DO PROVIDE THE SAME TIMING INFORMATION.

2 BUT EVEN IF THAT WERE NOT THE CASE, THAT
3 EXTRA LIMITATION, THAT DIFFERENT TIMING LIMITATION
4 BE PROVIDED WOULD JUST BE IMPORTED DIRECTLY FROM
5 THE PREFERRED EMBODIMENT OF THE CLAIMS, WHICH
6 SHOULD NOT BE DONE.

7 AND IN FACT, IT'S QUITE CLEAR THAT IN
8 THIS CASE, THAT'S WHAT HYNIX WAS PROPOSING WHEN IT
9 PROPOSED THAT CONSTRUCTION BECAUSE THE PARTIES HAVE
10 AGREED, FOR EXAMPLE, ON THE CONSTRUCTION OF FIRST
11 INTERNAL CLOCK AND SECOND INTERNAL CLOCK -- NUMBER
12 48 -- AND WITH RESPECT TO THOSE TWO CONSTRUCTIONS,
13 FIRST INTERNAL CLOCK, AN INTERNAL CLOCK SIGNAL,
14 SECOND INTERNAL CLOCK, A DIFFERENT INTERNAL CLOCK
15 SIGNAL, THERE'S NO QUESTION OF DIFFERENT TIMING
16 INFORMATION. IT'S JUST TWO INSTANCES OF AN
17 INTERNAL CLOCK SIGNAL.

18 THAT SHOULD ALSO BE THE CASE WITH RESPECT
19 TO FIRST AND SECOND EXTERNAL CLOCKS. THE TERMS
20 "FIRST EXTERNAL CLOCK" AND "SECOND EXTERNAL CLOCK"
21 NEVER APPEAR IN THE SPECIFICATION, SO RAMBUS COULD
22 NOT HAVE BEEN ACTING AS ITS OWN LEXICOGRAPHER WITH
23 RESPECT TO THEM, AND CONSEQUENTLY, THEY SHOULD
24 CARRY THEIR ORDINARY MEANING IN THE CONVENTIONAL
25 PATENT LAW SENSE TO JUST DISTINGUISH BETWEEN

1 REPEATED INSTANCES OF TWO EXTERNAL CLOCKS.

2 THE COURT: OKAY.

3 MR. JONES: YOUR HONOR, THERE ARE TWO,
4 TWO POINTS THAT I'D LIKE TO ADDRESS, AND I'LL
5 ADDRESS THE LAST PORTION OF MR. DETRE'S ARGUMENT
6 FIRST.

7 AND ONE OF THE QUESTIONS YOU HAD ASKED
8 WAS WHERE IN THE SPECIFICATION THERE IS SUPPORT FOR
9 THE NOTION OF A DEVICE CONNECTED TO THE DISCLOSED
10 SYSTEM IN THE RAMBUS PATENTS WHEREIN THE CLOCKS,
11 THE TWO EXTERNAL CLOCKS PROVIDE, OR CAN PROVIDE THE
12 SAME TIMING INFORMATION.

13 AND I THINK THAT IT FIRST BEARS NOTING
14 THAT THERE'S ONLY ONE CLOCK IN THE SCHEME DISCLOSED
15 IN THIS PATENT, AND THAT'S THE EARLY AND LATE
16 CLOCKING SCHEME, AND THAT'S DESCRIBED AND AT LEAST
17 DEPICTED IN FIGURE 8.

18 AND SO CLOCK 1 IN THIS FIGURE WOULD BE
19 WHAT'S REFERRED TO AS THE EARLY CLOCK, AND THEN AS
20 IT GOES AROUND THE TURN-AROUND IN THE U IN THE
21 CLOCK LINE, CLOCK 2 IS WHAT'S REFERRED TO AS THE
22 LATE CLOCK.

23 AND ONE OF THE THINGS THAT SHOULD BE
24 NOTED IS THAT THE DISCLOSURE AND THE SPECIFICATION
25 DOES NOT EVER SUGGEST THAT A DEVICE IS GOING TO BE

1 CONNECTED AT THE U OR THE TURN-AROUND IN THAT
2 DEVICE, IN THAT CLOCKING LINE SUCH THAT WHAT'S
3 REFERRED TO AS CLOCK 1 AND CLOCK 2 ARE, IN FACT,
4 PROVIDING THE SAME TIMING INFORMATION. THERE'S NO
5 DISCLOSURE WHATSOEVER IN THE SPECIFICATION FOR
6 THAT.

7 AND THE HYPOTHETICAL POSED TO MR. TAYLOR
8 DURING HIS DEPOSITION DOES NOT CHANGE WHAT IS, IN
9 FACT, DISCLOSED AND WHAT IS NOT DISCLOSED IN THE
10 SPECIFICATION. IT SPEAKS FOR ITSELF.

11 IF YOU TURN TO THE, TO THE PORTION OF THE
12 SPECIFICATION THAT TALKS ABOUT THE ONLY CLOCKING
13 SCHEME DISCLOSED IN THE SPECIFICATION, IT'S WORTH
14 BEARING IN MIND THAT AT COLUMN 18, LINES 58 THROUGH
15 19:27, THE SPECIFICATION READING "CLOCKS, CLOCKING
16 A HIGH SPEED BUS ACCURATELY WITHOUT INTRODUCING
17 ERROR DUE TO PROPAGATION DELAYS CAN BE IMPLEMENTED
18 BY HAVING EACH DEVICE MONITOR TWO BUS CLOCK
19 SIGNALS," AND THAT'S EARLY CLOCK AND LATE CLOCK,
20 "AND THEN DERIVE INTERNALLY A DEVICE CLOCK, THE
21 TRUE SYSTEM CLOCK."

22 NOW, IT GOES ON TO SAY "THE BUS CLOCK
23 INFORMATION CAN BE SENT ON ONE OR TWO LINES TO
24 PROVIDE A MECHANISM FOR EACH BUSSED DEVICE TO
25 GENERATE AN INTERNAL DEVICE CLOCK WITH ZERO SKEW

1 RELATIVE TO INTERNAL DEVICE CLOCKS."

2 NOW, THAT PRINCIPLE, OR THAT IDEA IS
3 WHAT'S REFLECTED IN FIGURE 8A WHERE IT SHOWS THE
4 TWO CLOCK SIGNALS, CLOCK 1 AND CLOCK 2, OR THE
5 EARLY AND LATE CLOCK.

6 AND IN THAT INSTANCE, WHAT IT'S SHOWING
7 IS THAT THE TIMING INFORMATION, MEANING THE CLOCK
8 SIGNAL THAT'S RISING AND FALLING ON THE EDGES OF
9 THOSE TWO SIGNALS, ARE NOT THE SAME, AND THE
10 PURPOSE OF THE INVENTION IN APPLYING THIS CLOCKING
11 SCHEME IS SO THAT YOU CAN ADJUST FOR THE TIME LAG,
12 THE DIFFERENCE IN TIME AT WHICH THE CLOCK IS GOING
13 TO ARRIVE AT EACH DEVICE ON THE CLOCK BUS.

14 NOW, THE INTERESTING THING THAT MR. DETRE
15 MENTIONED WAS IN CONTRASTING THE NOTION, OR THE
16 AGREED UPON DEFINITION OF THE INTERNAL CLOCK
17 SIGNALS, HE NOTED THAT THE SAME CONSTRUCTION HAD
18 NOT BEEN AGREED TO; THAT IS, THAT THE TWO INTERNAL
19 CLOCKS HAVE DIFFERENT TIMING INFORMATION.

20 AND THERE'S A REASON FOR THAT. THE
21 SPECIFICATION, WHEN IT TALKS ABOUT THE DERIVATION
22 OF AN INTERNAL CLOCK FOR EACH OF THESE DEVICES,
23 ACTUALLY DISCLOSES TWO COMPLEMENTARY CLOCKS, AND
24 THAT'S SHOWN IN FIGURE 13 OF THE PATENT ON THE
25 RIGHT-HAND SIDE OF WHAT'S BEING SHOWN ON THE SCREEN

1 RIGHT NOW, AND THAT'S INTERNAL CLOCK 73 AND
2 INTERNAL COMPLEMENT CLOCK 74.

3 AND IN THAT INSTANCE, THOSE ARE THE
4 INTERNAL CLOCKS THAT HAVE BEEN DERIVED FROM THE TWO
5 EXTERNAL CLOCKS, AND WHAT YOU SEE THERE IS THESE
6 TWO CLOCK SIGNALS ARE INTERNAL CLOCK SIGNALS THAT
7 ARE COMPLEMENTARY, THEREFORE, THEY ARE PROVIDING
8 THE SAME TIMING INFORMATION, IT'S JUST THAT THEY
9 ARE INVERSED IMAGES, OR MIRROR IMAGES OF ONE
10 ANOTHER.

11 IN THAT INSTANCE, THE SPECIFICATION
12 SUPPORTS WHAT'S BEEN AGREED TO BY THE PARTIES,
13 WHICH IS THAT THE INTERNAL CLOCK SIGNALS ARE MERELY
14 JUST THAT. IT DOESN'T HAVE THE LIMITATION OR
15 REQUIREMENT OR EVEN SUGGESTION THAT THE TIMING
16 INFORMATION OF THE INTERNAL CLOCKS HAS TO BE
17 DIFFERENT.

18 IN CONTRAST TO WHAT'S SHOWN IN THE
19 SPECIFICATION, AND IT'S THE ONLY DISCLOSURE IN THE
20 SPECIFICATION, THE IMPORTANT ASPECT OF HAVING THIS
21 CLOCKING SCHEME IS THAT YOU CAN ADJUST FOR THE SKEW
22 THAT APPEARS AT THE DEVICES BASED ON WHERE THEIR
23 LOCATION IS ALONG THE CLOCK BUS LINE.

24 NOW, ONE OF THE OTHER INTERESTING THINGS
25 THAT I THINK NEEDS TO BE ADDRESSED AND CLARIFIED,

1 YOUR HONOR, IS THAT THE NOTION OF COLLATERAL
2 ESTOPPEL, I THINK, HAS BEEN A LITTLE BIT CONFUSED
3 IN THE SENSE OF CLAIM CONSTRUCTION.

4 AND IT IS HYNIX'S POSITION, AND I'D LIKE
5 TO MAKE SURE THAT THIS IS CLARIFIED, THAT IN TERMS
6 OF CLAIM CONSTRUCTION, THE INTERPRETATION OF THE
7 EASTERN DISTRICT OF VIRGINIA AS TO THE FIRST AND
8 SECOND EXTERNAL CLOCK SIGNAL, OR CLOCK DEFINITIONS,
9 WAS NOT APPEALED BY RAMBUS, AND IT THEN BECAME THE
10 BASIS FOR THE FINDING OF NONINFRINGEMENT AS TO THE
11 '214 PATENT.

12 AND THAT ISSUE IS DISTINCT FROM WHETHER
13 OR NOT THERE SHOULD BE COLLATERAL ESTOPPEL OF
14 NONINFRINGEMENT AS TO THOSE CLAIMS THAT RECITE THE
15 '214 PATENT, OR EXCUSE ME, THOSE CLAIMS THAT RECITE
16 THE FIRST AND SECOND EXTERNAL CLOCK SIGNALS, THE
17 REASON BEING, OR THE DIFFERENCE BEING IS THAT THE
18 COURT TOOK THE OPPORTUNITY AND TOOK LOTS OF TIME
19 AND DEDICATION, I WOULD THINK, IN LISTENING TO THE
20 ARGUMENTS PRESENTED BY RAMBUS, LISTENING TO THE
21 ARGUMENTS PRESENTED BY INFINEON, THE PARTIES HAD A
22 FAIR OPPORTUNITY TO PRESENT THOSE ARGUMENTS, AND
23 THE COURT THEN CONSTRUED THE CLAIMS.

24 RAMBUS THEN MADE ITS CHOICE NOT TO APPEAL
25 THAT DECISION TO THE FEDERAL CIRCUIT.

1 THE COURT: LET ME STOP YOU TO MAKE SURE
2 I UNDERSTAND WHERE YOU'RE COMING FROM.

3 IS IT YOUR VIEW THAT IF THERE HAD BEEN NO
4 APPEAL, BUT NO FINAL JUDGMENT IN THE EASTERN
5 DISTRICT, THAT THE CLAIM CONSTRUCTION WOULD NOT BE
6 COLLATERAL ESTOPPEL; BUT SINCE THERE WAS AN APPEAL
7 AND RAMBUS HAD THE OPPORTUNITY TO APPEAL THE
8 CONSTRUCTION AND DIDN'T DO SO, IT IS COLLATERAL
9 ESTOPPEL, OR IS YOUR POSITION SOMETHING DIFFERENT
10 THAN THAT?

11 MR. JONES: NO, NO. I THINK THAT IS OUR
12 POSITION. I THINK THAT IS, IN FACT, WHAT HAPPENED
13 IN JANUARY OF THIS YEAR.

14 THE COURT IN THE EASTERN DISTRICT OF
15 VIRGINIA EXPLICITLY RULED THAT BECAUSE OF THOSE
16 CIRCUMSTANCES, THE '214 PATENT WAS OUT OF THE CASE
17 DUE TO RAMBUS'S FAILURE TO PRESENT PROOF ON THE
18 EXISTENCE OF THESE ELEMENTS, THE FIRST AND SECOND
19 EXTERNAL CLOCK SIGNALS IN THE ACCUSED DEVICES.

20 THE COURT: BUT WOULD YOU AGREE THAT IF
21 THERE HAD BEEN NO APPEAL AND THE EASTERN DISTRICT
22 CASE WERE STILL PENDING, THAT WHATEVER CLAIM
23 CONSTRUCTION IT HAD DONE WOULD NOT BE COLLATERAL
24 ESTOPPEL.

25 MR. JONES: YES, I THINK I WOULD, YOUR

1 HONOR.

2 THE COURT: OKAY. SO IT'S THE FACT THAT
3 THEY HAD THE OPPORTUNITY TO APPEAL AND CHOSE NOT
4 TO?

5 MR. JONES: WELL, IT'S THE FACT THAT THAT
6 ASPECT OF THE JUDGMENT IS STILL FINAL, YES, YOUR
7 HONOR, AND THAT THEY -- THAT THEY MADE THAT
8 ELECTION NOT TO APPEAL ON THAT TERM.

9 AS FAR AS THE '214, THE OUTCOME ON THE
10 '214 WAS BASED UPON A FAILURE OF PROOF BY RAMBUS AS
11 TO THE EXISTENCE OF THE FIRST AND SECOND EXTERNAL
12 CLOCKS.

13 NOW, WE CAN DEBATE WHETHER OR NOT THE
14 FAILURE OF PROOF, WHICH WAS DUE TO SOME RULINGS AS
15 FAR AS WHAT EVIDENCE WAS GOING TO BE PERMITTED TO
16 BE INTRODUCED AT TRIAL BY RAMBUS, WHETHER THAT HAS
17 A -- WHETHER THAT ISSUE OF COLLATERAL ESTOPPEL AS
18 TO THE ISSUE OF INFRINGEMENT OR NOT INFRINGEMENT
19 THEN SHOULD APPLY.

20 BUT IN TERMS OF THE CLAIM CONSTRUCTION
21 FOR THE FIRST AND SECOND EXTERNAL CLOCKS, THEY HAD
22 AN OPPORTUNITY TO LITIGATE THAT, AND THEY THEN
23 CHOSE NOT TO APPEAL IT.

24 THE RESULT OF THAT IS THAT REGARDLESS OF
25 HOW THEY GOT THERE, THAT TERM, THOSE TERMS WERE THE

1 BASIS FOR THE FINAL JUDGMENT OF NONINFRINGEMENT AS
2 TO THE '214 PATENT.

3 THE COURT: OKAY. THANK YOU.

4 DO YOU WANT TO JUST BRIEFLY ADDRESS THE
5 COLLATERAL ESTOPPEL ISSUE, AND THEN WE'LL MOVE ON.

6 MR. DETRE: YES, YOUR HONOR.

7 I THINK ALL I HAVE TO SAY ON THAT IS THAT
8 THE FEDERAL CIRCUIT HAS VERY STRICT PAGE LIMITS ON
9 ITS BRIEFS.

10 RAMBUS HAD TO PICK AND CHOOSE WHICH CLAIM
11 CONSTRUCTIONS TO APPEAL. IT PICKED THE ONES IT
12 CONSIDERED WERE THE MOST IMPORTANT AND, AS YOUR
13 HONOR KNOWS, THE FEDERAL CIRCUIT REVERSED THE
14 DISTRICT COURT ON ALL OF THE APPEALED TERMS.

15 WE DON'T THINK THAT THE FACT THAT RAMBUS
16 ULTIMATELY DECIDED NOT TO APPEAL FIRST AND SECOND
17 EXTERNAL CLOCK SIGNALS HAS ANY BEARING ON THE
18 COLLATERAL ESTOPPEL ISSUE.

19 AND YOUR HONOR HAS ALREADY DECIDED THIS,
20 THE COLLATERAL ESTOPPEL EFFECT OF THE DISTRICT
21 COURT.

22 THE COURT: WELL, IN FAIRNESS, WHAT I DID
23 WAS VACATE THE SUMMARY JUDGMENT I GRANTED BECAUSE
24 OF THE REVERSAL.

25 I CAN'T SAY I THOUGHT IT THROUGH TO THE

1 EXTENT OF THE QUESTION OF WHETHER OR NOT, SINCE YOU
2 DIDN'T APPEAL CERTAIN CLAIM TERMS AND THOSE CLAIM
3 TERMS WERE THEN USED BY THE TRIAL COURT IN REACHING
4 A FINAL JUDGMENT, OR CONSTRUCTION, WOULD BE
5 COLLATERAL ESTOPPEL. I CAN'T REPRESENT THAT I
6 THOUGHT THAT FAR THROUGH THE ISSUE.

7 MR. DETRE: WELL, THE DISTRICT COURT DID
8 REACH THAT CLAIM CONSTRUCTION.

9 THE FINAL JUDGMENT THAT THE DISTRICT
10 COURT REACHED WAS VACATED BY THE FEDERAL CIRCUIT,
11 SO THERE IS NOT A FINAL JUDGMENT IN THE EASTERN
12 DISTRICT OF VIRGINIA AT THIS TIME. IT'S BEEN
13 REMANDED FOR TRIAL.

14 THE COURT: OKAY. LET'S TAKE JUST A
15 SHORT BREAK AND THEN WE'LL RESUME.

16 MR. DETRE: THANK YOU, YOUR HONOR.

17 (WHEREUPON, A RECESS WAS TAKEN.)

18 THE COURT: OKAY. READY TO GO FORWARD?

19 MR. DETRE: YES, YOUR HONOR.

20 THE COURT: I JUST WILL MENTION, I TALKED
21 TO THE REPORTER AT THE BREAK, AND WE CAN GO UNTIL
22 5:30, BUT WE'RE GOING TO HAVE TO QUIT AT THAT TIME,
23 SO GOVERN YOURSELVES ACCORDINGLY.

24 MR. DETRE: YOUR HONOR, THE NEXT TERM I'D
25 LIKE TO ADDRESS IS "BLOCK SIZE INFORMATION."

1 THE COURT: IS THERE REALLY A DISPUTE
2 HERE?

3 MR. DETRE: YES, THERE IS, YOUR HONOR.

4 THE COURT: OKAY.

5 MR. DETRE: IT -- YOU'VE, IN YOUR
6 TENTATIVE CLAIM CONSTRUCTION, ADOPTED HYNIX'S
7 PROPOSED CONSTRUCTION, AND WE HAVE A FEW PROBLEMS
8 WITH THAT.

9 ONE IS THAT WE THINK THAT THE TERM
10 "SPECIFIES" IS SOMEWHAT VAGUE.

11 IN OUR CONSTRUCTION, WE SAID
12 "REPRESENTATIVE OF," AND AT ONE POINT IN THEIR
13 CLAIM CONSTRUCTION, CLAIMS CONSTRUCTION BRIEFING,
14 HYNIX AGREED THAT "SPECIFIES" SIMPLY MEANS
15 REPRESENTATIVE OF AN AMOUNT.

16 BUT IN -- NOT TO JUMP TOO FAR AHEAD, BUT
17 IT IS RELEVANT. IN THEIR SUMMARY JUDGMENT PAPERS,
18 HYNIX, AMONG OTHER ARGUMENTS IT MAKES, SAYS THAT
19 BECAUSE THE BURST LENGTH IN HYNIX'S SDRAM DEVICES
20 RELATES SIMPLY TO A SINGLE PIN ON THE MEMORY RAM
21 DEVICE, IT DOES NOT REPRESENT THE TOTAL AMOUNT OF
22 DATA TO BE OUTPUT BY THAT MEMORY DEVICE, OR DOES
23 NOT SPECIFY IT.

24 AND WE THINK IT CLEARLY DOES REPRESENT
25 IT. YOU JUST HAVE TO MULTIPLY THE NUMBER OF PINS

1 BY THE BURST LENGTH.

2 AND SO WE THINK THAT THE TERM
3 "REPRESENTATIVE" IS A LITTLE BIT CLEARER IN THAT
4 RESPECT THAN "SPECIFIES," WHICH MAY HAVE AN
5 INDICATION OF ACTUALLY BEING THE NUMBER THAT IS THE
6 AMOUNT OF DATA TO BE READ OUT.

7 THE WORD "TOTAL" IS ANOTHER WORD THAT WE
8 HAVE A PROBLEM WITH, BECAUSE THE CLAIMS HERE THAT
9 BLOCK SIZE APPEARS IN ARE ACTUALLY QUITE CLEAR
10 ABOUT WHAT BLOCK SIZE MEANS.

11 FOR EXAMPLE, COULD WE PULL UP THE '918
12 PATENT, PAGE 30. AND BLOW UP CLAIM 18 ON THE
13 RIGHT-HAND COLUMN.

14 THIS IS ONE CLAIM --
15 CLAIM 18. NO, NO. UP, UP, UP. THERE
16 YOU GO.

17 THIS IS ONE CLAIM WHICH HAS THE TERM
18 "BLOCK SIZE INFORMATION" IN IT, AND IT SAYS, "THE
19 FIRST BLOCK SIZE INFORMATION DEFINES FIRST AMOUNT
20 OF DATA TO BE OUTPUT BY THE MEMORY DEVICE."

21 IT DOESN'T SAY THAT IT'S THE TOTAL AMOUNT
22 OF DATA, IT'S JUST AN AMOUNT OF DATA.

23 FINALLY, WE ARE SOMEWHAT CONCERNED BY THE
24 LANGUAGE THAT THE BLOCK SIZE INFORMATION "SPECIFIES
25 THE TOTAL AMOUNT OF DATA THAT IS TO BE TRANSFERRED

1 ON THE BUS DURING THE MEMORY READ OR WRITE
2 OPERATION. "

3 IN A SYSTEM WITH MORE THAN ONE MEMORY
4 DEVICE, MORE THAN ONE MEMORY DEVICE MAY OUTPUT DATA
5 ONTO THE BUS IN A READ OR WRITE OPERATION.

6 AND ADDING THAT, WE THINK, EXTRANEIOUS
7 LANGUAGE OF BEING TRANSFERRED ON THE BUS COULD
8 POSSIBLY BE MISINTERPRETED AS NOT JUST REPRESENTING
9 THE BLOCK SIZE INFORMATION RELATING TO A SINGLE
10 MEMORY DEVICE, BUT THE CLAIMS IN WHICH THIS APPEARS
11 ARE QUITE CLEAR THAT WE'RE TALKING ABOUT BLOCK SIZE
12 INFORMATION RELATING TO A SINGLE MEMORY DEVICE.

13 SO THOSE ARE THE THREE ADJUSTMENTS WE
14 WOULD MAKE TO THAT PROPOSED CONSTRUCTION, YOUR
15 HONOR.

16 THE COURT: OKAY.

17 MR. DETRE: THANK YOU.

18 THE COURT: GO AHEAD. I'M SORRY.

19 MR. BROWN: OKAY. I WAS JUST --

20 "SPECIFIES" VERSUS "REPRESENTATIVE," I
21 PREFER "SPECIFIES" BECAUSE -- FIRST, WHEN MR. DETRE
22 STARTED TALKING, I WAS BASICALLY READY TO AGREE
23 THAT "SPECIFIES" AND "REPRESENTATIVE OF" MEANT THE
24 SAME THING.

25 BUT WHEN HE SAID -- WHEN HE GOT TO HIS

1 NEXT ARGUMENT WHERE HE SAID THAT THE BLOCK SIZE
2 INFORMATION JUST DEFINES AN AMOUNT OF DATA, THEN I
3 START TO WORRY ABOUT WHETHER OR NOT BLOCK SIZE JUST
4 REPRESENTS, YOU KNOW, SOME AMOUNT OF DATA THAT --
5 AND I THINK THAT'S MUCH TOO INDEFINITE AND I THINK
6 THAT THE TOTAL AMOUNT OF DATA IS APPROPRIATE.

7 WITH RESPECT TO THAT ONE CLAIM OF THE
8 '918 PATENT THAT MR. DETRE SHOWED YOU, THE LANGUAGE
9 WAS IT DEFINES AN AMOUNT OF DATA TO BE OUTPUT IN
10 RESPONSE TO A READ REQUEST.

11 THAT IS, BASICALLY BLOCK SIZE INFORMATION
12 DEFINES THE AMOUNT OF DATA. IT'S -- IT'S REFERRED
13 TO THE CLAIM AS AN AMOUNT BECAUSE THAT'S BASICALLY
14 THE WAY YOU HAVE TO WRITE PATENT CLAIMS.

15 BUT THE CLAIM THAT HE REFERRED TO WAS
16 DEFINING AN AMOUNT OF DATA TO BE OUTPUT IN RESPONSE
17 TO A READ REQUEST.

18 THE WAY I READ THAT, THE PLAIN LANGUAGE
19 OF THAT CLAIM IS THAT MEANS THE BLOCK SIZE
20 INFORMATION IS THE TOTAL AMOUNT OF DATA WHICH IS TO
21 BE OUTPUT IN RESPONSE TO THAT READ REQUEST.

22 THE SECOND -- OR THE THIRD POINT IS THAT
23 THE REFERENCE TO A SINGLE MEMORY DEVICE, OR
24 MR. DETRE'S CONCERN ABOUT THE SINGLE MEMORY DEVICE
25 I'M NOT QUITE SURE WHERE HE WAS DRIVING, WHERE HE

1 WAS GOING ON THAT, AND OBVIOUSLY IT DEPENDS ON WHAT
2 THE COURT'S CONSTRUCTION OF THE TERM "DEVICE" IS,
3 AS TO WHETHER A DEVICE IS, YOU KNOW, EIGHT CHIPS ON
4 A MODULE, ON A MEMORY MODULE, OR WHETHER IT'S A
5 SINGLE CHIP.

6 SO I'M NOT QUITE SURE WHERE MR. DETRE IS
7 GOING WITH THAT, BUT WE THINK THAT THIS DEFINITION
8 OF BLOCK SIZE INFORMATION, WHICH IS NOT QUITE WHAT
9 WE PROPOSED, BUT APPROXIMATELY WHAT WE PROPOSED,
10 BUT MORE IMPORTANTLY, IT'S WHAT EDVA, OR IT'S
11 ESSENTIALLY WHAT THE EDVA, WHAT JUDGE PAYNE AT THE
12 TRIAL COURT LEVEL SAID BLOCK SIZE INFORMATION WAS,
13 AND WE THINK THAT THAT'S THE CORRECT CONSTRUCTION.

14 THE COURT: OKAY. THANK YOU.

15 MR. BROWN: OKAY.

16 THE COURT: OKAY. WHAT DO YOU WANT TO DO
17 NEXT?

18 MR. BROWN: OPERATION CODE, YOUR HONOR,
19 SO I GET TO GO FIRST.

20 THE ORDINARY MEANING OF "OPERATION CODE,"
21 THE PLAIN AND ORDINARY MEANING, AND IT IS WHAT
22 OCCURS IN BASICALLY ALL OF THE DEFINITIONS THAT
23 WE'VE BEEN ABLE TO FIND IN DICTIONARIES, FOR
24 EXAMPLE, REFER TO THE PORTION OF A DIGITAL COMPUTER
25 INSTRUCTION THAT INDICATES WHAT ACTION IS TO BE

1 PERFORMED. THAT'S THE ORDINARY MEANING OF THE
2 TERM.

3 OKAY. IT'S WHERE -- BASICALLY WE HAVE
4 NOT BEEN ABLE TO FIND A SOURCE THAT DEVIATES FROM
5 THAT, EXCEPT FOR THE ONLY SOURCE WHERE WE FIND
6 DEVIATION FROM THAT IS IN THE RAMBUS PATENT
7 SPECIFICATION AND TWO OR THREE OTHER ARTICLES WHICH
8 DESCRIBE THE USE OF PACKET-BASED BUSES.

9 AND IT WOULD, IT WOULD BE IMPROPER, AS
10 THE COURT HAS INDICATED AND I CERTAINLY AGREE, IT
11 WOULD BE IMPROPER TO ADOPT A DEFINITION OF
12 "OPERATION CODE" THAT EXCLUDED THE PREFERRED
13 EMBODIMENT OF -- THAT'S IN THE PATENT APPLICATION.

14 SO I AGREE BASICALLY THAT THERE IS A
15 DEVIATION FROM THE ORDINARY, THE PLAIN AND ORDINARY
16 MEANING OF THE TERM "OPERATION CODE," AND THAT
17 INDICATES -- OR THAT MEANS, IN TURN, THAT RAMBUS
18 HAS ADOPTED A SPECIAL DEFINITION OF THE TERM, HAS
19 EXPRESSLY DEFINED "OPERATION CODE" DIFFERENTLY FROM
20 ITS ORDINARY MEANING.

21 AND I'D LIKE TO -- IF I CAN BRING THIS TO
22 THE ATTENTION OF THE COURT, THIS IS A RECENT
23 DECISION, ACTUALLY, THIS IS A DECISION OF THE
24 FEDERAL CIRCUIT THAT WAS ISSUED LAST THURSDAY --

25 THE COURT: OKAY.

1 MR. BROWN: -- IN INTERNATIONAL RECTIFIER
2 CORPORATION VERSUS IXYS, AND I'LL LEAVE A COPY, A
3 COUPLE COPIES FOR THE COURT.

4 AND THE FEDERAL CIRCUIT WAS FACED WITH A
5 SIMILAR SITUATION. THERE WAS A TERM IN THE
6 CLAIM -- ONE CLAIM TERM THAT WAS UNDER DISPUTE WAS
7 THE TERM "ANNULAR," AND THE COURT LOOKED AT THE
8 ORDINARY DEFINITION, AND I DON'T HAVE ANY -- THIS
9 IS NOT, SORRY, IN THE PRESENTATION HERE.

10 THE COURT LOOKED AT THE TERM "ANNULAR"
11 AND LOOKED AT THE ORDINARY DEFINITION, OKAY, WHICH
12 WAS BASICALLY THAT IT IS RING-LIKE, OKAY, THAT
13 ANNULAR IN THE ORDINARY DEFINITION AND ALL THE
14 DICTIONARIES WAS RING-LIKE.

15 OKAY. NOW, BUT THE WAY IT WAS USED IN
16 THE PATENT CLAIMS WAS IT WAS USED TO DESCRIBE A
17 SECTION THAT WENT AROUND A POLYGON, OKAY, SO
18 BASICALLY IT WAS ONE POLYGON CONCENTRICALLY LOCATED
19 WITHIN ANOTHER POLYGON, WHICH NECESSARILY HAS TO
20 HAVE STRAIGHT SIDES AND ANGLES.

21 AND THE FEDERAL CIRCUIT SAID THERE THAT
22 DEFINITION OF ANGULAR, THAT THERE WAS A SPECIAL
23 DEFINITION OF THE WORD ANGULAR, OR SORRY, ANNULAR
24 THAT HAD BEEN ADOPTED OR HAD BEEN USED IN THE
25 PATENT, AND THAT IT DEVIATED FROM WHAT IT SAW AS

1 THE PLAIN AND ORDINARY DEFINITION ENOUGH TO INCLUDE
2 THE USAGE OF THE TERM IN THE PATENT, BUT NOT MORE
3 THAN THAT.

4 AND BASICALLY IT DID NOT GO SO FAR AS TO
5 SAY THAT YOU CAN EXPAND THE DEFINITION OF "ANNULAR"
6 IN THIS CASE INSOMUCH THAT IT INCLUDES ANY LINE
7 THAT GOES AROUND OR ANY REGION THAT CIRCUMNAVIGATES
8 ANOTHER REGION, REGARDLESS OF THE SHAPE, THAT YOU
9 CAN DEVIATE FROM THE ORDINARY MEANING, WHICH IS
10 CIRCULAR, OR RING-LIKE, TO INCLUDE THE POSSIBILITY
11 OF HAVING POLYGONS, CONCENTRIC POLYGONS AND SAYING
12 ANNULAR IS THE SPACE BETWEEN CONCENTRIC POLYGONS.

13 AND RAMBUS'S DEFINITION, OR PROPOSED
14 DEFINITION, OF "OPERATION CODE" ESSENTIALLY
15 BASICALLY, WHEN IT GOES TO ONE OR MORE BITS TO
16 SPECIFY A TYPE OF ACTION, AT THIS POINT THERE JUST
17 IS NO, THERE'S NO LIMIT TO THE DEFINITION OF TERMS.

18 IT HAS, YOU KNOW, THIS ONE OR MORE BITS.
19 IT IS COMPLETELY UNHINGED FROM THE PATENT
20 DISCLOSURE. THERE'S NO -- THERE'S NO SUGGESTION IN
21 THE PATENT DISCLOSURE, ANYWHERE IN THE PATENT
22 DISCLOSURE, THAT THE OPERATION CODE WOULD BE
23 ANYTHING BUT A SERIES OF BITS THAT ARE CONTAINED IN
24 A PACKET.

25 THAT'S THE ONLY EMBODIMENT WHICH IS SHOWN

1 IN THE PATENT AND THERE'S NO DISCLOSURE, THERE'S
2 NOTHING IN THE PATENT WHICH SUGGESTS THAT AN
3 OPERATION CODE COULD BE, COULD BE SOMETHING ELSE,
4 THAT IT COULD BE ANY OTHER, ANY OTHER EMBODIMENT.

5 THE COURT: HOW CAN THE OPERATION CODE BE
6 COMMUNICATED TO THE DEVICE IF IT'S NOT DONE WITHIN
7 PACKETS?

8 MR. BROWN: THERE'S NO DISCLOSURE OF HOW
9 IT CAN BE DONE IN -- SEE, THE PROBLEM IS THE
10 OPERATION CODE IS JUST A PART OF THE PREFERRED
11 EMBODIMENT.

12 THE COURT: RIGHT, I UNDERSTAND THAT.

13 MR. BROWN: OKAY. THAT'S THE ONLY PLACE
14 IT'S DISCLOSED.

15 IT COULD BE -- HOW CAN THE OPERATION CODE
16 BE -- WITHIN THE SCOPE OF THE PATENT, OR WITHIN THE
17 DISCLOSURE OF THE PATENT, I DON'T SEE ANY
18 MEANINGFUL -- ONCE YOU -- ONCE I SAY THAT THE
19 OPERATION CODE DOES NOT HAVE TO BE PART OF A
20 PACKET, OKAY, I DON'T SEE ANY MEANINGFUL PLACE TO
21 STOP BETWEEN BEFORE YOU GET TO THE VERY GENERAL
22 DEFINITION THAT RAMBUS HAS PROPOSED.

23 ONCE YOU TAKE IT OUTSIDE THAT PACKET, OUT
24 OF THE CONFINES OF THE PACKET, I DON'T SEE -- IF
25 YOU SORT OF -- I DON'T SEE ANY PLACE, ANY WAY TO

1 STOP BETWEEN A PACKET AND WHAT RAMBUS HAS PROPOSED.

2 I HOPE I'VE EXPLAINED THAT RIGHT.

3 THE COURT: WELL, I GUESS I'M JUST
4 THEORETICALLY -- FORGETTING THE PATENT FOR A
5 MOMENT, HOW WOULD YOU MAKE A COMMUNICATION OTHER
6 THAN IN A PACKET?

7 MR. BROWN: YOU MEAN JUST BETWEEN
8 DEVICES?

9 THE COURT: YEAH.

10 MR. BROWN: WELL, THIS, IN TURN, WILL
11 DEPEND ON RAISING ANOTHER, I SUPPOSE, IMPLICIT
12 CLAIM CONSTRUCTION ISSUE ABOUT WHAT A PACKET IS.

13 AND THE INFORMATION THAT WE HAVE FROM
14 CERTAINLY MR. TAYLOR'S EXPERT DECLARATION AND FROM
15 MR. FARMWALD'S DEPOSITION TESTIMONY IS THAT A
16 PACKET IS -- YOU SORT OF GATHER UP ALL OF THE
17 CONTROL INFORMATION AND THE DATA -- SORRY -- THE
18 CONTROL INFORMATION, THE ADDRESS AND, IF IT'S
19 NEEDED IN THE PACKET, THE DATA, AND YOU PACKAGE IT
20 UP AND TRANSFER IT ACROSS A BUS IN A SEQUENCE OF
21 BYTES OF INFORMATION, OR A SEQUENCE OF SEGMENTS OF
22 INFORMATION.

23 AND THAT IS -- THAT'S BASICALLY -- THAT
24 IS WHAT A PACKET IS, THAT YOU TAKE THE BITS THAT
25 ARE RELEVANT, OR THE INFORMATION THAT IS RELEVANT

1 TO A PARTICULAR TRANSACTION, AND YOU TRANSMIT IT
2 OVER THE BUS IN A SEQUENCE OF GROUPS OF
3 INFORMATION.

4 THAT'S THE CLOSEST I CAN COME TO WHAT A
5 DEFINITION OF A PACKET IS.

6 AND IN THE CASE OF -- IT CERTAINLY IS
7 EASIEST TO DESCRIBE IN TERMS OF THE PACKETS OF THE
8 BUS, THE PACKETS OF THE PREFERRED EMBODIMENT, THAT
9 BASICALLY IF YOU HAVE A REQUEST PACKET, OR A READ
10 REQUEST PACKET, AND THAT'S WHAT'S SHOWN IN FIGURE 4
11 OF THE PATENT-IN-SUIT, AND IN THIS CASE ALL OF THE
12 INFORMATION IN THIS CASE, THE ACCESS TYPE, THE
13 ADDRESS INFORMATION, THE BLOCK SIZE, THOSE ARE ALL
14 RELATED TO EACH OTHER BECAUSE THEY'RE PART OF THE
15 SAME REQUEST PACKET, AND THEN THEY'RE TRANSMITTED
16 OVER THE BUS SEQUENTIALLY IN GROUPS.

17 NOW, IN THE PREFERRED EMBODIMENT, THERE'S
18 ONE BYTE OF INFORMATION THAT IS TRANSMITTED EVERY,
19 EVERY HALF CLOCK CYCLE.

20 I DON'T SEE ANY REASON -- AND THERE ARE
21 PACKET BUSES WHERE INFORMATION IS TRANSMITTED OVER
22 DIFFERENT NUMBERS OF LINES OR IT'S TRANSMITTED ONCE
23 PER CLOCK CYCLE.

24 YOU COULD HAVE DIFFERENT TIMING
25 OPERATIONS BETWEEN THE BYTES THAT ARE RELATED TO

1 EACH OTHER IN THE SENSE THAT THEY FORM PART OF THE
2 SAME REQUEST OR MESSAGE TO BE SENT TO OR FROM THE
3 MEMORY DEVICE.

4 BUT BASICALLY THAT'S WHAT A PACKET IS, IS
5 YOU HAVE THE WHOLE GROUP OF INFORMATION THAT'S
6 TRANSMITTED IN CHUNKS AT DIFFERENT TIMES OVER SOME
7 KIND OF A BUS TO THE RECEIVING END.

8 THE COURT: IN THIS CASE, DON'T WE HAVE,
9 IN EACH CLAIM, THE OPERATION CODE BEING UTILIZED
10 FOR A SPECIFIC PURPOSE?

11 FOR EXAMPLE --

12 MR. BROWN: THE OPERATION --

13 THE COURT: -- TO INSTRUCT THE MEMORY
14 DEVICE TO PERFORM A READ OPERATION OR TO PERFORM A
15 WRITE OPERATION?

16 MR. BROWN: RIGHT. IT IS THE OPERATION
17 CODE THAT BASICALLY, THAT TELLS, IN EACH OF THE
18 CLAIMS, I BELIEVE, THAT HAS BASICALLY INSTRUCTIONS,
19 OR SOME BITS THAT REPRESENT, THAT DO REPRESENT ONE
20 OR MORE OPERATIONS THAT THE DEVICE IS SUPPOSED TO
21 PERFORM, YES.

22 THE COURT: SO DOESN'T THE LIMITING
23 LANGUAGE OF THE CLAIMS ALLAY YOUR FEAR SOMEWHAT
24 THAT THE DEFINITION THAT RAMBUS PROPOSES IS TOO
25 BROAD?

1 MR. BROWN: TO SOME EXTENT.

2 BUT I THINK THAT, THAT THE PROPER WAY, OR
3 THE BEST WAY TO CONSTRUE THIS IS THAT THESE BITS DO
4 HAVE TO BE PART OF A PACKET, OKAY, OR THAT THEY
5 HAVE TO BE SENT FROM, IN THIS CASE, THE MASTER TO
6 THE MEMORY IN SOME SORT OF FORMAT, WHETHER THEY'RE,
7 WHETHER THEY'RE DONE IN A SEQUENCE OR -- PROBABLY A
8 SEQUENCE, OR IT COULD BE ALL DONE SIMULTANEOUSLY.
9 I'M JUST NOT QUITE SURE WHERE THIS IS GOING TO END
10 UP UNDER RAMBUS'S DEFINITION.

11 THE COURT: OKAY. THANK YOU.

12 MR. DETRE: YOUR HONOR, I THINK, AS YOU
13 POINTED OUT IN THE CLAIMS IN WHICH IT'S USED, IT'S
14 CLEAR WHAT THE OPERATION CODE IS DOING, AS IN THE
15 EXAMPLE YOU MENTIONED IN INSTRUCTING THE MEMORY TO
16 PERFORM A READ OPERATION.

17 "OPERATION CODE" IS A VERY BROAD TERM. A
18 PERSON OF ORDINARY SKILL READING SUCH A CLAIM WOULD
19 UNDERSTAND IT IN VARIOUS WAYS TO GET THAT OPERATION
20 CODE TO A MEMORY DEVICE, AND THERE'S SIMPLY NO --

21 THE COURT: HOW WOULD YOU GET IT OTHER
22 THAN IN A PACKET UNDER YOUR DISCLOSURE?

23 MR. DETRE: WELL, THERE'S SOME ISSUE AS
24 TO WHAT EXACTLY "PACKET" MEANS. I WANTED TO GET TO
25 THAT.

1 BUT ONE THING THAT, FOR EXAMPLE, HYNIX
2 DISTINGUISHES FROM "PACKET" IS A SET OF DEDICATED
3 SIGNAL LINES, THAT EACH LINE IS DEDICATED TO CARRY
4 ONLY A CERTAIN KIND OF CONTROL INFORMATION SO THAT
5 YOU DON'T NEED TO HAVE A SORT OF PACKET PROTOCOL TO
6 IDENTIFY WHAT EACH BIT MEANS WHEN IT COMES IN.
7 IT'S IDENTIFIED BY VIRTUE OF BEING ON THAT SIGNAL
8 LINE, AND HYNIX SAYS THAT'S NOT A PACKET.

9 I THINK THE TERM "PACKET" IS A SOMEWHAT
10 VAGUE TERM, AND THAT'S ANOTHER PROBLEM WITH HYNIX'S
11 PROPOSAL HERE.

12 AND WE COMPLAINED IN ONE OF OUR BRIEFS
13 THAT HYNIX HASN'T SAID WHAT A PACKET IS, AND IN
14 RESPONSE, HYNIX SAID, "WELL, WE DIDN'T HAVE TO SAY
15 WHAT IT WAS BECAUSE IT'S DEFINED IN THE PATENT, OR
16 THE PATENT TALKS ABOUT A REQUEST PACKET."

17 AND THE PATENT DOES SAY THAT A REQUEST
18 PACKET, IN THE PREFERRED EMBODIMENT, IS A SEQUENCE
19 OF BYTES COMPRISING ADDRESS AND CONTROL
20 INFORMATION.

21 NOW, OF COURSE, IF WE GO WITH THAT
22 DEFINITION OF PACKET, THEN THAT CAN'T BE RIGHT
23 BECAUSE THERE'S NO PROVISION FOR DATA BEING
24 TRANSMITTED IN A PACKET, AND MR. BROWN, AND HYNIX
25 IN ITS BRIEFS, HAS SPOKEN ABOUT DATA BEING

1 TRANSMITTED IN THE PACKET AND IT'S, IT'S STILL NOT
2 CLEAR TO ME EXACTLY WHAT HYNIX DOES MEAN BY A
3 PACKET.

4 MR. TAYLOR, AT HIS DEPOSITION, APPARENTLY
5 FELT THAT THE CORRECT DEFINITION OF A PACKET HAD TO
6 BE RESTRICTED TO JUST THAT DEFINITION OF REQUEST
7 PACKET IN THE PREFERRED EMBODIMENT AND COULD NOT
8 INCLUDE DATA.

9 AND PERHAPS WE COULD JUST PLAY A LITTLE
10 BIT OF THAT VIDEO AT PAGE 63.

11 (WHEREUPON, A VIDEOTAPE WAS PLAYED IN
12 OPEN COURT OFF THE RECORD.)

13 MR. DETRE: SO THAT ILLUSTRATES A COUPLE
14 OF THINGS, I THINK: ONE THAT HYNIX ISN'T QUITE
15 SURE WHAT A PACKET IS; AND TWO, THAT THIS IS AN
16 ATTEMPT TO RESTRICT RAMBUS TO A VERY NARROW
17 DEFINITION OF WHAT -- OF PACKET EXACTLY AS WHAT'S
18 IN THE PREFERRED EMBODIMENT, AND THERE'S NO
19 JUSTIFICATION FOR THAT.

20 THE OTHER POINT I WANTED TO ADDRESS JUST
21 BRIEFLY IS COMPUTER CODE INSTRUCTION.

22 MR. BROWN MAINLY TALKED ABOUT PACKETS AND
23 HOW OPERATION CODE SHOULD BE INTERPRETED ACCORDING
24 TO A PACKET AS IN RAMBUS'S PREFERRED EMBODIMENT.

25 THEIR CONSTRUCTION, THOUGH, RECOGNIZES,

1 AS YOUR HONOR PUT IN THE TENTATIVE CLAIM
2 CONSTRUCTION, THAT THEY COULDN'T JUST STICK WITH
3 PACKETS BECAUSE THEY WOULD RUN AFOUL OF CLAIM
4 DIFFERENTIATION.

5 SO THEY TACK ON WHAT THEY SAY IS THE
6 ORDINARY MEANING OF OPERATION CODE, WHICH IS A
7 COMPUTER CODE, A FIELD IN A COMPUTER CODE
8 INSTRUCTION WHICH APPARENTLY, AS MR. BROWN
9 EXPLAINED IT, RELATES TO INSTRUCTIONS TO DIGITAL
10 COMPUTERS AND DOESN'T HAVE VERY MUCH, IF ANYTHING,
11 TO DO WITH THE PATENTS HERE.

12 I HAVE NOT HAD A CHANCE TO READ THROUGH
13 THIS CASE THAT MR. BROWN HAS HANDED OUT,
14 INTERNATIONAL RECTIFIER CORPORATION VERSUS IXYS,
15 BUT I WILL BET THAT THE CONSTRUCTION THAT THE COURT
16 CAME UP WITH THERE MADE SENSE IN TERMS OF THE
17 PATENTS-IN-SUIT.

18 IT WASN'T SOMETHING IN THE PREFERRED
19 EMBODIMENT APPENDED TO SOME OTHER THING UNRELATED
20 TO ANYTHING IN THE PATENTS.

21 AND THE LAST POINT I WANT TO MAKE IS THAT
22 EVEN THAT PART OF THE, OF HYNIX'S PROPOSAL ABOUT
23 COMPUTER CODE INSTRUCTION IS ITSELF TOO VAGUE AND
24 HYNIX ISN'T QUITE SURE WHAT THAT MEANS.

25 MR. BROWN TODAY WAS TALKING ABOUT

1 INSTRUCTIONS TO DIGITAL COMPUTERS AND, IN FACT, ALL
2 THE DICTIONARIES THAT THEY CITED, OR THE MAJORITY
3 OF THEM ANYWAY, ALL TALKED ABOUT MACHINE
4 INSTRUCTIONS TO MICROPROCESSORS.

5 BUT IF WE COULD PULL UP NUMBER 41, THIS
6 IS ANOTHER BIT OF MR. TAYLOR'S TESTIMONY.

7 I WAS CURIOUS, SO I ASKED HIM, "CAN YOU
8 GIVE ME AN EXAMPLE OF A MEMORY DEVICE THAT RECEIVES
9 AN OPERATION CODE AS BITS IN A FIELD WITHIN A
10 COMPUTER CODE INSTRUCTION?"

11 AND MR. TAYLOR ANSWERED, "THE RAMBUS PART
12 OPERATES THAT WAY."

13 AND THIS WAS -- THIS SEEMED SURPRISING
14 BECAUSE THIS SEEMED TO BE, IN THEIR CONSTRUCTION,
15 AN ALTERNATIVE TO TRANSMITTING THE OPERATION CODE
16 IN THE PACKET.

17 SO I CLARIFIED. "THE RAMBUS PART
18 RECEIVES -- I DIDN'T SAY 'WITHIN A PACKET.' I SAID
19 'WITHIN A COMPUTER CODE INSTRUCTION.' THE RAMBUS
20 PART RECEIVES OPERATION CODES AS BITS IN A FIELD
21 WITHIN A COMPUTER CODE INSTRUCTION?"

22 AND MR. TAYLOR ANSWERED, "WELL, A
23 COMPUTER CODE, OR 'INSTRUCTION CODE' IS REALLY A
24 VERY GENERIC TERM. IT APPLIES TO SIGNALS THAT ARE
25 PART OF A SYSTEM. EVEN 'COMPUTER' ITSELF DOESN'T

1 NECESSARILY MEAN A COMPUTER. IT CAN MEAN SOME
2 DEVICE LIKE A COMPUTER."

3 SO APPARENTLY, ACCORDING TO MR. TAYLOR, A
4 COMPUTER CODE INSTRUCTION IS NOT REALLY RESTRICTED
5 TO DIGITAL COMPUTER INSTRUCTIONS. IT INCLUDES THE
6 PACKET.

7 BUT IF THAT PART INCLUDES THE PACKET,
8 THEN WHY, AS PART OF HYNIX'S PROPOSED INSTRUCTION
9 OF A PACKET, IF THAT'S ALREADY PART OF A COMPUTER
10 CODE INSTRUCTION?

11 SO BASICALLY THE BOTTOM LINE IS HYNIX'S
12 PROPOSED CONSTRUCTION IS VAGUE. HYNIX ITSELF
13 DOESN'T KNOW WHAT IT MEANS.

14 AND IT'S, AT BOTTOM, AN IMPROPER ATTEMPT
15 TO RESTRICT RAMBUS TO A PREFERRED EMBODIMENT.

16 THE COURT: DO YOU AGREE THAT THE SOLE
17 PREFERRED EMBODIMENT USES "OPERATION CODE" AS A
18 FIELD WITHIN A PACKET?

19 MR. DETRE: WELL, I BELIEVE THERE ARE A
20 NUMBER OF EMBODIMENTS IN GENERAL DESCRIBED IN THE
21 PATENT. I AGREE THAT WHEN THE PATENT REFERS TO AN
22 OPERATION CODE, IT -- THAT PARTICULAR PREFERRED
23 EMBODIMENT PLACES THE OPERATION CODE IN A PACKET,
24 THAT'S RIGHT.

25 THE COURT: IF YOU INCLUDED THAT FACT IN

1 THE CONSTRUCTION, DOES THAT, IN YOUR VIEW, RENDER A
2 COUPLE OF THE DEPENDENT CLAIMS SUPERFLUOUS?

3 MR. DETRE: YES, YOUR HONOR. I THINK WE
4 CAN -- ONE EXAMPLE IS CLAIM 8 OF THE '120 PATENT,
5 WHICH CLAIM 1 OF THE '120 PATENT IS A FAIRLY BROAD
6 CLAIM RELATING TO SENDING AN OPERATION CODE,
7 SPECIFYING THE READ OPERATION, AND THEN IT GOES ON
8 TO TALK ABOUT BLOCK SIZE INFORMATION.

9 AND THEN CLAIM 8 SAYS THE OPERATION CODE
10 IS SENT IN A REQUEST PACKET.

11 SO I THINK THAT'S EXACTLY RIGHT, YOUR
12 HONOR.

13 ALSO, I WOULD POINT OUT THAT ASIDE FROM A
14 CLAIM DIFFERENTIATION ISSUE -- I THINK THAT'S A
15 VERY REAL ISSUE HERE AND DECIDES THE CASE, BUT
16 ASIDE FROM A CLAIM DIFFERENTIATION ISSUE, THE
17 FEDERAL CIRCUIT HAS BEEN QUITE CLEAR, AND HERE I'M
18 QUOTING, THAT "THE FACT THAT A SPECIFICATION
19 DESCRIBES ONLY ONE EMBODIMENT DOES NOT REQUIRE THAT
20 EACH CLAIM BE LIMITED TO THAT ONE EMBODIMENT."

21 THAT'S FROM SRI INTERNATIONAL VERSUS
22 MATSUSHITA, WHICH WE CITE IN OUR BRIEFS AND IT IS
23 AN EN BANC DECISION OF THE FEDERAL CIRCUIT. THAT'S
24 A 1985 CASE, BUT THAT SAME IDEA HAS BEEN EXPRESSED
25 MUCH MORE RECENTLY AND REPEATEDLY BY THE FEDERAL

1 CIRCUIT.

2 IT'S QUITE CLEAR THAT IT ALL COMES DOWN
3 TO WHAT WOULD A PERSON OF ORDINARY SKILL IN THE
4 ART, READING THE CLAIM, UNDERSTAND, AND NOT WHETHER
5 THERE'S ONE OR MORE EMBODIMENTS IN THE
6 SPECIFICATION.

7 THE COURT: MR. BROWN, WOULD YOU ADDRESS
8 THE CLAIM DIFFERENTIATION ISSUE?

9 MR. BROWN: UNDER THE, THE PRINCIPALS OF
10 CLAIM DIFFERENTIATION, YES, IT PRESUMES THAT
11 THERE'S A DIFFERENCE IN SCOPE BETWEEN THE
12 INDEPENDENT AND THE DEPENDENT CLAIMS.

13 BUT BASICALLY WHERE, AND THIS IS JUST A
14 CANON OF CONSTRUCTION, WHERE, AS WE WOULD, HYNIX
15 WOULD SUBMIT IN THIS CASE, THE INDEPENDENT CLAIM IS
16 ONLY A MINIMAL OF ONE CONSTRUCTION, ONE REASONABLE
17 CONSTRUCTION, THEN THE DOCTRINE OF CLAIM
18 DIFFERENTIATION IS NOT APPLICABLE.

19 THE COURT: YOU DON'T DISAGREE WITH THE
20 FACT THAT IF WE ADOPT YOUR CONSTRUCTION, THAT CLAIM
21 8 AND, I THINK IT'S A CLAIM IN THE 20'S, DON'T ADD
22 ANYTHING?

23 MR. BROWN: I'VE GOT TO LOOK. ON THAT
24 PARTICULAR PART OF -- ON THAT PARTICULAR PART OF
25 THE CLAIM -- I DON'T HAVE THE CLAIM IN FRONT OF ME,

1 SO AS TO WHETHER THERE ARE OTHER DIFFERENCES IN THE
2 SCOPE OF THE CLAIM OF CLAIM 8 OF THE '120 PATENT --
3 SORRY, YOUR HONOR. I'M JUST NOT --

4 DO YOU HAVE THAT?

5 MR. DETRE: DO YOU HAVE THE '120 PATENT?

6 MR. BROWN: OKAY. SO -- OKAY. NO.

7 THERE ARE -- ALL RIGHT.

8 THE ONLY SIGNIFICANT LIMITATION IS THAT
9 THE FIRST OPERATION CODE IS INCLUDED IN A REQUEST
10 PACKET; AND DOES THE MAIN CLAIM REFER TO ONE
11 OPERATION CODE, JUST ONE?

12 MR. DETRE: CAN WE GO BACK TO CLAIM 1.
13 IT STARTS ON THE PREVIOUS PAGE.

14 MR. BROWN: OKAY.

15 MR. DETRE: I THINK THE CLAIM ACTUALLY
16 CONTINUES.

17 MR. BROWN: RIGHT, IT DOES CONTINUE ON
18 THE NEXT ONE.

19 I BELIEVE THAT THE ANSWER TO THE QUESTION
20 IS THAT THERE ISN'T ANY OTHER -- I BELIEVE THAT
21 THAT IS THE ONLY DISTINCTION BETWEEN CLAIM 1 AND
22 CLAIM 8.

23 THE COURT: OKAY.

24 MR. BROWN: BUT BASICALLY CLAIM 8
25 REQUIRES IT TO BE IN A PACKET, YES.

1 THE COURT: THAT WOULD BE THE SAME FOR
2 23, I THINK, TOO.

3 MR. BROWN: WELL, IN THAT CASE -- YES,
4 THAT'S TRUE, WHERE BOTH THE BLOCK SIZE INFORMATION
5 AND THE FIRST OPERATION CODE ARE INCLUDED IN A
6 REQUEST PACKET.

7 BUT, YES, THE OPERATION CODE -- THAT ONE
8 IS A LITTLE BIT DIFFERENT BECAUSE BOTH BLOCK SIZE
9 INFORMATION AND A FIRST OPERATION CODE HAVE TO BE
10 INCLUDED IN A PACKET.

11 SO THE DEFINITION OF "FIRST OPERATION
12 CODE," OR "OPERATION CODE THAT REQUIRES AN
13 OPERATION CODE TO BE IN A REQUEST PACKET" IS NOT
14 INCONSISTENT WITH THAT BECAUSE CLAIM 23 BASICALLY
15 SAYS THAT THE BLOCK SIZE IS ALSO IN A REQUEST
16 PACKET.

17 THE COURT: OKAY.

18 MR. BROWN: OKAY.

19 THE COURT: OKAY. NEXT?

20 MR. DETRE: YES, YOUR HONOR. THE NEXT
21 TERM THAT I HAVE ON MY LIST IS PRECHARGE
22 INFORMATION, WHICH I WILL ADDRESS FIRST SINCE YOUR
23 HONOR'S TENTATIVE CLAIM CONSTRUCTION IS NOT EXACTLY
24 HYNIX'S PROPOSED, BUT SIMILAR TO IT.

25 COULD WE PULL UP NUMBER 43?

1 THIS SHOWS HYNIX'S ORIGINALLY PROPOSED
2 CONSTRUCTION AND OUR PROPOSED CONSTRUCTION. I
3 THINK IF I READ THIS CORRECTLY, THE ONLY DIFFERENCE
4 BETWEEN THE TENTATIVE CLAIM CONSTRUCTION AND
5 HYNIX'S IS THAT "MEMORY ARRAY" HAS BEEN CHANGED TO
6 "MEMORY DEVICE."

7 WE THINK THAT OUR CONSTRUCTION, AS
8 SLIGHTLY MODIFIED IN SOME OF THE BRIEFING FROM WHAT
9 WE ORIGINALLY PROPOSED BY ADDING "IN SENSE
10 AMPLIFIERS ON THE MEMORY DEVICE" IS SOMEWHAT MORE
11 PRECISE, AND ALSO ATTEMPTS TO DEFINE WHAT
12 "PRECHARGING" MEANS INSTEAD OF JUST USING THE TERM
13 "PRECHARGE" IN THE CONSTRUCTION OF PRECHARGE
14 INFORMATION.

15 OTHER THAN THAT, WE DON'T HAVE A, WE
16 DON'T HAVE A MAJOR DISAGREEMENT WITH WHAT THE
17 TENTATIVE CLAIM CONSTRUCTION IS, BUT WE DO THINK
18 THAT OURS IS PREFERABLE FOR THOSE REASONS.

19 IT'S NOT THE WHOLE MEMORY DEVICE THAT'S
20 PRECHARGED. IT'S CERTAIN PARTS OF THE MEMORY
21 DEVICE, SPECIFICALLY IN SENSE AMPLIFIERS.

22 IT IS TRUE THAT CERTAIN OTHER PARTS, LIKE
23 THE BIT LINES, ARE ALSO PRECHARGED, BUT IT'S
24 SUFFICIENT TO IDENTIFY PRECHARGE INFORMATION TO
25 SPECIFY IN SENSE AMPLIFIERS.

1 THE COURT: OKAY.

2 MR. JONES: YOU CAN GO AHEAD -- IF YOU
3 CAN LEAVE THAT UP FOR ME, THAT WOULD BE GREAT.

4 MR. DETRE: SURE.

5 MR. JONES: IT'LL SAVE US THE TIME OF
6 FUMBLING AROUND.

7 YOUR HONOR, THE NOTION OF, OR AT LEAST
8 THE ONLY DISCLOSURE IN THE SPECIFICATION AND WHAT'S
9 CONSISTENT WITH WHAT ONE OF ORDINARY SKILL WOULD
10 UNDERSTAND IS THAT PRECHARGE INFORMATION IS
11 INFORMATION THAT'S MEANT TO DETERMINE WHETHER OR
12 NOT THE DEVICE SHOULD BE PRECHARGED.

13 NOW, THE PROBLEM WE HAVE WITH RAMBUS'S
14 PROPOSED CONSTRUCTION, AND I THINK THAT MAYBE THIS
15 IS WHERE THE POINT IS BEING MISSED, I DON'T THINK
16 THERE'S A LEGITIMATE DISPUTE OVER WHAT PRECHARGING
17 IS.

18 THE QUESTION -- OUR PROBLEM WITH RAMBUS'S
19 CONSTRUCTION IS THAT IT INTRODUCES A LOT OF
20 AMBIGUITIES INTO THE NOTION OF PRECHARGE
21 INFORMATION SUCH THAT ALTHOUGH NOW RAMBUS IS
22 OFFERING -- AND IN FACT, THIS IS INTERESTING
23 BECAUSE RAMBUS'S ORIGINAL CONSTRUCTION DID NOT EVEN
24 INCLUDE THE TERM, OR PHRASE, "SENSE AMPLIFIERS."
25 THIS IS A NEW CONSTRUCTION THAT HAS BEEN PROFFERED

1 IN RESPONSE TO ARGUMENTS DURING CLAIM CONSTRUCTION
2 AND THE SUMMARY JUDGMENT PROCESS.

3 THE PROBLEM WITH THEIR CONSTRUCTION IS
4 THAT IT DOESN'T EVEN HAVE A NOTION OF PRECHARGING.
5 IT'S JUST THE NOTION OF SETTING A PREDEFINED
6 VOLTAGE STATE IN SENSE AMPLIFIERS.

7 WE THINK THIS INTRODUCES A COUPLE OF
8 AMBIGUITIES. ONE IS -- FIRST IS "THE VALUE THAT IS
9 RELATED TO AN ESTABLISHMENT OF A PREDEFINED
10 VOLTAGE."

11 "VALUE THAT IS RELATED TO AN
12 ESTABLISHMENT" COULD BE ANYTHING. ANY TYPE OF
13 OPERATION WITHIN THE MEMORY DEVICE OR THE SYSTEM
14 WHICH HAS TO REQUIRE THE SETTING OF THE SENSE
15 AMPLIFIERS COULD, WOULD FALL WITHIN, WITHIN THIS
16 CONSTRUCTION, AND THAT WOULD INCLUDE, FOR EXAMPLE,
17 READ AND WRITE OPERATIONS.

18 EVERY OPERATION IN THE DEVICE IN WHICH
19 THE MEMORY WRITE IS ACCESSED INVOLVES HAVING TO
20 PRECHARGE THE SENSE AMPLIFIERS IN ORDER TO EITHER
21 WRITE OR READ DATA INTO THE MEMORY ARRAY, AND FOR
22 THIS REASON, THE WHOLE NOTION OF PRECHARGE
23 INFORMATION IS JUST THROWN OUT THE WINDOW. THIS
24 WOULD COVER ALL THESE OTHER TYPES OF COMMANDS, IF
25 YOU WILL.

1 THE OTHER, THE OTHER PROBLEM WITH THIS IS
2 THAT THE PATENT SPECIFICATION ITSELF IS CLEAR WHEN
3 IT TALKS ABOUT THE ACCESS MODE, AND WE REFERENCED,
4 FOR EXAMPLE, COLUMN 10 OF THE '152 PATENT AT LINES
5 36 TO 44, THERE'S A VERY EXPLICIT REFERENCE WITHIN
6 THE SPECIFICATION. IT'S TALKING IN THE CONTEXT OF
7 ACCESS MODE.

8 AND WHAT IT SAYS IS "THE ACCESS MODE ALSO
9 DETERMINES WHETHER THE DRAM SHOULD PRECHARGE THE
10 SENSE AMPLIFIERS OR SHOULD SAVE THE CONTENTS OF THE
11 SENSE AMPS FOR A SUBSEQUENT PAGE MODE ACCESS."

12 AND SO, AGAIN, EVERYONE IN THIS ROOM
13 THAT'S BEEN INVOLVED IN THIS CASE UNDERSTANDS WHAT
14 THE TERM "PRECHARGE" MEANS.

15 BUT WHAT WE'VE DONE HERE IS -- WHAT
16 RAMBUS HAS DONE IS BASICALLY REMOVED THAT MEANING
17 AND THAT DEFINITION FROM THEIR PROPOSED
18 CONSTRUCTION.

19 IN CONTRAST, HYNIX'S CONSTRUCTION IS
20 CONSISTENT WITH WHAT IS DISCLOSED IN THE
21 SPECIFICATION, AND ALTHOUGH IT REPEATS WHAT
22 PRECHARGE IS, REPEATS THE TERM "PRECHARGE," IT IS
23 THE WAY IT'S DISCLOSED AND IT IS CONSISTENT WITH
24 HOW IT'S DESCRIBED IN THE SPECIFICATION AS BEING
25 INFORMATION THAT CONNOTES OR IS USED TO DETERMINE

1 WHETHER OR NOT A PRECHARGING OPERATION SHOULD BE
2 CONFORMED, EXCUSE ME, SHOULD BE PERFORMED.

3 IN CONTRAST, RAMBUS'S DEFINITION JUST
4 TALKS ABOUT ANY TYPE OF VALUE THAT WILL AFFECT THE
5 SENSE AMPLIFIERS.

6 NOW, AGAIN, THAT COULD BE A READ
7 OPERATION, A WRITE OPERATION, A REFRESH OPERATION.
8 THERE'S MANY, MANY DIFFERENT OPERATIONS THAT, WHEN
9 YOU TALK ABOUT MOVING DATA IN AND OUT OF THE MEMORY
10 ARRAY, THE SENSE AMPLIFIERS ARE ALWAYS INVOLVED.

11 AND WITHIN THE SPECIFICATION OF THIS
12 PATENT AND THESE DISCLOSURES, IT'S ACTUALLY
13 INFORMATION THAT'S MEANT TO CONNOTE WHETHER OR NOT
14 YOU SHOULD PERFORM A PRECHARGE OPERATION, NOT TO
15 PERFORM A READ OPERATION WHICH, IN THE PROCESS, IS
16 ALSO GOING TO CHARGE THE SENSE AMPLIFIERS, OR A
17 WRITE OPERATION, WHICH IS ALSO GOING TO, IN EFFECT,
18 INVOLVE CHARGING THE SENSE AMPLIFIERS.

19 IT'S SPECIFICALLY USED TO CONNOTE WHETHER
20 OR NOT THE SENSE AMPLIFIERS SHOULD BE PRECHARGED.

21 THE COURT: IF YOU WERE TO STICK "SENSE
22 AMPLIFIERS" IN YOUR DEFINITION, HOW WOULD YOU DO
23 IT?

24 MR. JONES: IF WE WERE TO STICK IT IN OUR
25 DEFINITION, IT WOULD SAY "INFORMATION DENOTING

1 WHETHER A MEMORY" -- EXCUSE ME -- "WHETHER THE
2 SENSE AMPLIFIERS SHOULD BE PRECHARGED."

3 AND THE SENSE AMPLIFIERS, IN A SENSE --
4 EXCUSE ME -- IS A PORTION, OR IS RELATED, OR IS A
5 PORTION THAT SITS RIGHT OUTSIDE THE CORE OF THE
6 MEMORY ARRAY AND, IN FACT, THAT WOULD BE ACCURATE.

7 THE PROBLEM WE HAVE WITH ONLY INCLUDING
8 THE SENSE AMPLIFIERS IS THAT THERE ARE MANY OTHER
9 THINGS THAT ARE INVOLVED IN THE PROCESS OF
10 PRECHARGING THE SENSE AMPLIFIERS. YOU'RE NOT JUST
11 CHARGING THE SENSE AMPLIFIERS.

12 YOU'RE ALSO, IN ESSENCE, SETTING THE
13 VOLTAGE STATE ACROSS THE LINES FROM WHICH THE SENSE
14 AMPLIFIER IS GOING TO SENSE WHETHER OR NOT THE
15 MEMORY IN THE ARRAY IS A, IS A LOGICAL 1 OR A
16 LOGICAL 0.

17 THE COURT: ISN'T THERE AN ISSUE AS TO
18 WHETHER OR NOT THE SENSE AMPLIFIERS ARE PART OF THE
19 MEMORY ARRAY?

20 MR. BROWN: YOUR HONOR, IF -- RATHER THAN
21 "MEMORY ARRAY," IF WE SAID "THE BIT LINES AND
22 SENSE" -- OR "WHETHER THE BIT LINES OR SENSE
23 AMPLIFIERS OR A PORTION OF THOSE SHOULD BE
24 PRECHARGED," THAT WOULD BE ADEQUATE, YES.

25 THE COURT: BUT DO YOU AGREE THAT THERE

1 IS AN ISSUE?

2 MR. BROWN: I KNOW THAT THERE IS AN ISSUE
3 RAISED AS TO WHETHER THE SENSE AMPLIFIERS ARE PART
4 OF THE ARRAY, AND THAT SORT OF IS A LINE DRAWING
5 EXERCISE THAT I DON'T THINK WE NEED TO GET TO.

6 THE COURT: OKAY.

7 ANYTHING FURTHER?

8 MR. JONES: NO.

9 MR. DETRE: WELL, I THINK WE'RE ALL
10 AGREED, I THINK MR. TAYLOR TESTIFIED IN HIS
11 DEPOSITION AND WE AGREE THAT, ACCORDING TO THE
12 AGREED CONSTRUCTION OF MEMORY ARRAY IN THIS CASE,
13 THE SENSE AMPLIFIERS ARE NOT PART OF THE MEMORY
14 ARRAY.

15 THE COURT: SO HYNIX'S DEFINITION, THEN,
16 IF YOU'RE CORRECT IN THAT, WOULD BE WRONG?

17 MR. DETRE: HYNIX'S DEFINITION WOULD BE
18 WRONG.

19 YOUR DEFINITION, YOUR HONOR, REPLACED
20 "ARRAY" WITH "DEVICE," SO YOUR DEFINITION WOULD BE
21 SOMEWHAT IMPRECISE BECAUSE YOU'RE NOT IDENTIFYING
22 WHAT PORTIONS OF THE DEVICE NEED TO BE PRECHARGED.

23 BUT IT WOULD BE MORE CORRECT THAN
24 HYNIX'S, YEAH.

25 THE COURT: BUT HYNIX HAS NO PROBLEM WITH

1 SUBSTITUTING "BIT LINE" AND "SENSE AMPLIFIERS";
2 RIGHT?

3 MR. BROWN: NO. IN OUR DEFINITION IN
4 PLACE OF "MEMORY ARRAY"?

5 THE COURT: RIGHT.

6 MR. BROWN: NO, WE HAVE NO PROBLEM WITH
7 THAT.

8 THE COURT: ALL RIGHT. THANK YOU.
9 WHAT DO YOU WANT TO DO NEXT?

10 MR. BROWN: LET ME CONFER BRIEFLY WITH
11 MR. DETRE.

12 THE COURT: OKAY. YOU GUYS ARE GETTING
13 ALONG SO WELL, I HATE TO INTERFERE WITH YOUR
14 AGREEMENTS.

15 MR. BROWN: I'M SORRY.

16 MR. DETRE: I APOLOGIZE, YOUR HONOR.

17 THE COURT: NO, DON'T.

18 (DISCUSSION OFF THE RECORD BETWEEN
19 COUNSEL.)

20 MR. BROWN: ALL RIGHT. LET ME GO THROUGH
21 AND GIVE YOU -- AND JUST SO WE HAVE THIS STRAIGHT,
22 IN TERMS OF YOUR CONSTRUCTIONS OF, OR YOUR PROPOSED
23 CONSTRUCTIONS HERE OF ACCESS TIME, ACCESS TIME
24 REGISTER, DELAY TIME, VALUE THAT IS REPRESENTATIVE
25 OF AN AMOUNT OF TIME TO TRANSPIRE, VALUE WHICH IS

1 REPRESENTATIVE OF THE DELAY TIME, AND VALUE WHICH
2 IS, OR CODE BEING, REPRESENTATIVE, OR INDICATIVE,
3 OF A PREPROGRAMMED NUMBER OF CLOCK CYCLES, HYNIX,
4 WE CAN ACCEPT THOSE DEFINITIONS, THOSE PROPOSED
5 CONSTRUCTIONS.

6 THE COURT: SO ACCESS TIME REGISTER DOWN
7 THROUGH VALUE?

8 MR. BROWN: YES.

9 THE COURT: OKAY.

10 MR. BROWN: NOW, AND ALSO JUST TO GO TO
11 THE OTHER, THE REMAINING TWO CONSTRUCTIONS HERE, OR
12 ON THE TENTATIVES, WHICH ARE "DATA" AND "CONTROL
13 INFORMATION," ON THE ASSUMPTION THAT THE, THAT THE
14 COURT IS NOT GOING TO CONSTRUE "DEVICE" TO REFER TO
15 A SET OF SIGNAL LINES THAT TRANSMIT SUBSTANTIALLY
16 ALL ADDRESS, DATA AND CONTROL, THEN IF THE COURT IS
17 NOT GOING TO ACCEPT THAT, THEN WE AGREE THAT IT'S
18 NOT NECESSARY TO ARGUE OVER EITHER "DATA" OR
19 "CONTROL INFORMATION."

20 IN THOSE PLACES WHERE "DATA" APPEARS IN
21 THE CLAIMS, IT'S VERY CLEAR THAT THE DEVICE IS
22 OUTPUTTING DATA, AND I THINK IT'S VERY CLEAR THAT
23 IT'S NOT OUTPUTTING DATA FROM A CONTROL REGISTER,
24 SO THAT UNDER THE COURT'S TENTATIVE RULING ON
25 "DEVICE" ABOUT THE, ABOUT WHETHER OR NOT THE

1 MULTIPLEXED BUS HAS ANYTHING TO DO WITH THE TERM
2 "DEVICE," THEN THE ISSUES OF "DATA" AND "CONTROL
3 INFORMATION" BECOME NO LONGER RELEVANT.

4 THE COURT: OKAY.

5 MR. BROWN: OKAY. OH, I'M SORRY.

6 I JUST -- JUST TO PRESERVE -- JUST TO
7 PRESERVE MY POSITION, IT IS THAT IF -- I THINK THAT
8 THE CONSTRUCTIONS OF "DATA" AND "CONTROL
9 INFORMATION" ARE RELEVANT UNDER THE, UNDER A
10 CONSTRUCTION WHERE THE DEVICE HAS AN INTERFACE TO A
11 NARROW MULTIPLEXED BUS.

12 THE COURT: OKAY.

13 MR. BROWN: OKAY.

14 MR. DETRE: YOUR HONOR, THE ONLY TERM,
15 THEN, THAT I WANT TO ADDRESS IS "ACCESS TIME
16 REGISTER," AND YOUR HONOR'S PROPOSED CONSTRUCTION,
17 "A DATA STORAGE ELEMENT TO STORE A VALUE
18 REPRESENTATIVE OF THE TIME A DEVICE MUST WAIT
19 BEFORE RESPONDING TO A TRANSACTION REQUEST" IS
20 SOMEWHAT VAGUE AND COULD BE INTERPRETED IN A WAY
21 THAT I THINK MIGHT BE AT ODDS WITH THE DISCLOSURE
22 IN THE PATENT SPECIFICATION AND THE CLAIMS IN WHICH
23 "ACCESS TIME REGISTER" APPEARS.

24 IF WE COULD PULL UP NUMBER 51?

25 THERE ARE TWO CLAIMS WHICH, IN THIS CASE

1 WHICH CONTAIN THE TERM "ACCESS TIME REGISTER," AND
2 THEY'RE CLAIM 18 OF THE '214 PATENT AND CLAIM 24 OF
3 THE '918 PATENT.

4 AND I FOCUS -- THEY'RE SLIGHTLY
5 DIFFERENT, BUT BOTH OF THEM, IN FACT, TELL US WHAT
6 IS STORED IN THE ACCESS TIME REGISTER.

7 FOR EXAMPLE, LOOKING AT CLAIM 24 OF THE
8 '918 PATENT, IT DISCUSSES STORING THE DELAY TIME
9 CODE IN AN ACCESS TIME REGISTER, AND THAT DELAY
10 TIME CODE IN THAT ACCESS TIME REGISTER IS
11 REPRESENTATIVE OF A NUMBER OF CLOCK CYCLES TO
12 TRANSPIRE BEFORE DATA IS OUTPUT ONTO THE BUS AFTER
13 RECEIPT OF A READ REQUEST.

14 SO I WOULD JUST BE A LITTLE BIT CONCERNED
15 BY THE LAST PART OF THE TENTATIVE CONSTRUCTION OF
16 ACCESS TIME REGISTER WHICH TALKS ABOUT THE DEVICE
17 WAITING BEFORE RESPONDING TO A TRANSACTION REQUEST,
18 WHICH IS SOMEWHAT MORE VAGUE THAN WHAT'S ACTUALLY
19 WRITTEN IN THE CLAIMS SPECIFYING THE BOUNDARIES OF
20 THAT DELAY TIME THAT'S STORED IN THE ACCESS TIME
21 REGISTER.

22 AND THAT IS WHY, IN RAMBUS'S PROPOSED
23 CONSTRUCTION, WHICH IS "A DATA STORAGE ELEMENT TO
24 STORE A VALUE REPRESENTATIVE OF AN ACCESS TIME
25 DELAY," WE'VE ESSENTIALLY LEFT ACCESS TIME DELAY

1 PURPOSELY UNDEFINED IN THE CONSTRUCTION BECAUSE THE
2 DEFINITION IS PROVIDED BY THE CLAIM LANGUAGE ITSELF
3 AS TO WHAT'S STORED IN THE ACCESS TIME REGISTER.

4 THE COURT: WHAT'S THE DIFFERENCE?

5 MR. DETRE: WELL, THIS GETS INTO WHAT I
6 THINK, AND OF COURSE -- AND I'M OBVIOUSLY GUESSING
7 SOMEWHAT BECAUSE I DON'T KNOW WHAT'S IN THE MIND OF
8 HYNIX'S COUNSEL, BUT I THINK HYNIX HAS INDICATED
9 THUS FAR, IN CONNECTION WITH THEIR PROPOSED
10 CONSTRUCTION OF "ACCESS TIME" AND "ACCESS TIME
11 REGISTER" THAT THEY INTEND TO ARGUE THAT THE ACCESS
12 TIME THAT'S STORED IN THE ACCESS TIME REGISTER
13 RELATES NOT TO A PROGRAMMABLE VALUE OR A VALUE THAT
14 YOU CAN SELECT, AS THE SPECIFICATION OF THE PATENTS
15 CLEARLY INDICATE IS WHAT'S MEANT HERE, BUT RATHER,
16 TO AN INHERENT TIMING PARAMETER OF, OF A MEMORY
17 DEVICE WHICH, IN THE CASE OF S DRAMS, IS WHAT'S
18 CALLED T_{AC} -- YOU MAY RECALL FROM THE TUTORIAL, T,
19 SUB A-C -- WHICH IS A, AN INHERENT PARAMETER WHICH
20 JUST REPRESENTS HOW LONG IT TAKES TO GET FROM THE
21 CLOCK EDGE DIRECTLY BEFORE DATA COMES OUT TO DATA
22 ACTUALLY COMING OUT, AND WHICH WOULD MAKE NO SENSE
23 TO STORE IN A REGISTER ON THE MEMORY DEVICE.

24 IT'S SIMPLY A PARAMETER THAT IS
25 CHARACTERISTIC OF THE MEMORY DEVICE BASED ON ITS

1 INHERENT CAPABILITIES.

2 AND I'M CONCERNED THAT THE LANGUAGE, "THE
3 TIME A DEVICE MUST WAIT BEFORE RESPONDING TO A
4 TRANSACTION REQUEST," TO THE EXTENT THAT HYNIX
5 TRIES TO USE THAT TO VARY THE ACTUAL LANGUAGE
6 THAT'S INCLUDED IN THE CLAIMS OF WHAT THE, OF WHAT
7 THE BEGINNING AND END POSTS ARE OF THE DELAY TIME
8 STORED IN THE ACCESS TIME REGISTER, THEY COULD SAY
9 THAT THAT REPRESENTS THIS ACCESS, INHERENT ACCESS
10 TIME, A TIME THAT THE DEVICE MUST WAIT FROM THE
11 CLOCK EDGE IMMEDIATELY PRECEDING DATA COMING OUT TO
12 THE DATA COMING OUT, WHICH REALLY WOULD NOT MAKE
13 ANY SENSE IN TERMS OF THE ACTUAL CLAIMS OR THE
14 SPECIFICATION.

15 AND THAT'S MY CONCERN, YOUR HONOR.

16 IF YOU LOOK AT THE CLAIM, THE CLAIM
17 SPECIFIES THAT IT'S, IN THIS PARTICULAR CLAIM
18 ANYWAY, THE ACCESS TIME REGISTER STORES NUMBER OF
19 CLOCK CYCLES.

20 THAT COULDN'T BE THE INHERENT ACCESS
21 TIME, WHICH IS EXPRESSED IN NANoseconds AND NOT IN
22 CLOCK CYCLES, TO TRANSPIRE BEFORE DATA IS OUTPUT ON
23 TO THE BUS AFTER RECEIPT OF A READ REQUEST.

24 SO IT'S BETWEEN THE TIME YOU GET A READ
25 REQUEST, NOT THE CLOCK EDGE RIGHT BEFORE DATA

1 OUTPUT, UNTIL DATA IS OUTPUT ONTO THE BUS.

2 SO IN MY OPINION, THAT'S QUITE CLEAR FROM
3 THE CLAIM AND I WOULD BE LEERY OF A CONSTRUCTION
4 THAT COULD BE USED TO TRY TO VARY THE CLEAR
5 LANGUAGE OF THE CLAIM.

6 THE COURT: OKAY.

7 MR. JONES: YOUR HONOR, I THINK WHAT
8 MR. DETRE -- IT WAS HARD TO FOLLOW WHAT HE WAS
9 TALKING ABOUT, BUT WE DON'T SEE AN INCONSISTENCY
10 WITH THE LANGUAGE THAT WAS SHOWN IN THAT PARTICULAR
11 CLAIM AND THE PROPOSED DEFINITION THAT THE COURT
12 HAS ISSUED IN ITS TENTATIVE.

13 THERE'S NO NOTION IN THE PROPOSED
14 CONSTRUCTION OF ACCESS TIME OF TALKING ABOUT CLOCK
15 EDGES AND THE IMMEDIACY OF THE DATA THAT COMES OUT
16 IN COMPARISON TO THAT CLOCK EDGE.

17 I THINK WHAT MR. DETRE IS PROBABLY
18 CONCERNED ABOUT IS WHAT WE MAY OR MAY NOT ARGUE IN
19 THE FUTURE IN TERMS OF INFRINGEMENT OR
20 NONINFRINGEMENT.

21 AND IN TERMS OF THIS CONSTRUCTION IN
22 COMPARISON TO THE OTHER LANGUAGE THAT'S RECITED IN
23 THE CLAIMS, WE DO NOT SEE AN INCONSISTENCY AND WE
24 THINK THE LANGUAGE HERE, ALTHOUGH NOT THE ONE WE
25 PROPOSED INITIALLY IN ITS ENTIRETY, IS ACCEPTABLE.

1 THE COURT: YOU SAID YOU DON'T SEE AN
2 INCONSISTENCY.

3 DO YOU SEE A DIFFERENCE?

4 MR. JONES: BETWEEN THIS LANGUAGE AND
5 THE --

6 THE COURT: YEAH.

7 MR. JONES: I DON'T, YOUR HONOR. I THINK
8 THE ACCESS TIME REGISTER AND THE LANGUAGE THAT HAD
9 BEEN SHOWN STORES A CODE.

10 AND THEN THE FURTHER LANGUAGE WITHIN THAT
11 CLAIM THEN DEFINED WHAT THE CODE WAS IN THAT
12 SPECIFIC INSTANCE, AND THAT'S WHY WHEN YOU LOOK AT
13 ALL THE DIFFERENT TERMS THAT HAVE BEEN GROUPED
14 TOGETHER, ACCESS TIME REGISTER, DELAY TIME, THE
15 VALUE, THE THREE VALUE TERMS, THERE'S ALL DIFFERENT
16 WAYS IN WHICH THE INFORMATION STORED WITHIN THE
17 ACCESS TIME REGISTER HAS BEEN LATER CLARIFIED IN
18 THE CLAIM LANGUAGE, AND WE THINK THAT CLAIM
19 LANGUAGE IS VERY EXPLICIT AND IT'S CLEAR AND I
20 DON'T SEE THE INCONSISTENCY.

21 THE ONE THING THAT WE PARTICULARLY HAD A
22 PROBLEM WITH IN RAMBUS'S PROPOSED CONSTRUCTION IS
23 THE FACT THAT IT INTRODUCED THE NOTION OF ACCESS
24 TIME IN THEIR PROPOSED CONSTRUCTION, BUT OFFERED
25 ABSOLUTELY NO EXPLANATION AS TO WHAT THE MEANING OF

1 ACCESS TIME WAS.

2 AND THAT WAS WHERE WE DISAGREED, AND WE
3 THINK THE EXTRINSIC EVIDENCE THAT WE'VE CITED IN
4 TERMS OF WHAT ONE OF ORDINARY SKILL WOULD
5 UNDERSTAND THE MEANING TO BE, IT'S REALLY THE
6 NOTION OF HOW LONG DOES IT TAKE THE DEVICE TO
7 PROVIDE INFORMATION AFTER IT'S RECEIVED A REQUEST
8 FROM EITHER THE CONTROLLER OR ANOTHER PORTION OF
9 THE SYSTEM?

10 HOW LONG DOES IT TAKE THE DEVICE, ONCE IT
11 GETS THAT INSTRUCTION, OR REQUEST, TO THEN PROVIDE
12 THE DATA OR RESPOND TO THAT REQUEST?

13 AND WE THINK THIS CONSTRUCTION IS
14 CONSISTENT WITH THAT.

15 THE COURT: DO YOU QUARREL WITH THE
16 CONSTRUCTION HE GAVE IT WHEN HE JUST SPOKE? I
17 MEAN, ISN'T THAT THE SAME THING THAT WE'VE SAID
18 HERE?

19 MR. JONES: I'M SORRY. SAY THAT AGAIN,
20 YOUR HONOR.

21 THE COURT: WHEN COUNSEL WAS ARGUING, AND
22 I CAN'T EXACTLY WORD IT, BUT HE GAVE A CONSTRUCTION
23 THAT PLUGGED IN DELAY TIME, I THINK, IN IT.

24 WOULD YOU READ YOURS AGAIN?

25 MR. DETRE: YOU MEAN OUR PROPOSED

1 CONSTRUCTION, YOUR HONOR?

2 THE COURT: THE ONE YOU SAID WHEN YOU
3 WERE ARGUING.

4 MR. DETRE: WELL, WHEN I WAS ARGUING I
5 GAVE OUR PROPOSED CONSTRUCTION, AND THEN I ALSO
6 CITED TO THE LANGUAGE IN THAT PARTICULAR CLAIM,
7 WHICH DEFINED WHAT WAS IN --

8 THE COURT: RIGHT. BUT THEN I THOUGHT
9 YOU PARAPHRASED IT. MAYBE I'M --

10 MR. DETRE: WELL, I DID, BUT I DID IT FOR
11 PURPOSES OF THAT CLAIM, YOUR HONOR.

12 SOME CLAIMS ARE WORDED A LITTLE BIT
13 DIFFERENTLY, BUT I THINK WE PROBABLY WOULD BE
14 SATISFIED WITH THAT GENERALLY.

15 IT'S THE TIME FROM THE RECEIPT OF A READ
16 REQUEST, OR READ COMMAND, UNTIL THE TIME THAT DATA
17 IS OUTPUT FROM THE DEVICE, REPRESENTATIVE OF THAT
18 AMOUNT OF TIME.

19 THE COURT: I GUESS I'M HAVING TROUBLE
20 SEEING WHAT PROBLEM YOU HAVE WITH THE WAY IT'S
21 WORDED NOW, AND I GUESS I'M HAVING TROUBLE SEEING
22 WHERE HYNIX SEES A DIFFERENCE BETWEEN WHAT'S HERE
23 AND WHAT YOU ARGUED FOR.

24 MR. DETRE: WELL, MY --

25 THE COURT: IN OTHER WORDS, I'M HAVING

1 TROUBLE SEEING A DISTINCTION.

2 MR. DETRE: WELL, MY ONLY CONCERN IS, TO
3 THE EXTENT THAT BEGINNING TIME OF THE TIME THAT THE
4 DEVICE MUST WAIT BEFORE RESPONDING TO THE
5 TRANSACTION REQUEST, THAT IS SOMEWHAT MORE VAGUE IN
6 THE PROPOSED CONSTRUCTION THAN IT ACTUALLY IS IN
7 THE CLAIM THAT WE LOOKED AT.

8 THE COURT: OKAY. AND IN THE CLAIM,
9 AGAIN, IT SAYS WHAT?

10 MR. DETRE: I BELIEVE -- LET'S PULL IT UP
11 SO THAT WE GET THE EXACT LANGUAGE.

12 "AFTER RECEIPT OF A READ REQUEST."

13 THE RECEIPT OF A READ REQUEST, IN THAT
14 PARTICULAR CLAIM, IS ONE END POST, AND DATA OUTPUT
15 ONTO THE BUS IS THE OTHER END POST.

16 THE COURT: SO IF I CHANGED --

17 MR. DETRE: FROM RECEIPT TO THE
18 TRANSACTION.

19 THE COURT: RECEIPT OF A READ REQUEST,
20 RESPONDING TO RECEIPT OF A, RECEIPT OF A READ
21 REQUEST?

22 MR. DETRE: WELL, CERTAIN -- "READ
23 REQUEST" IN THIS CASE HAS A CONSTRUCTION FROM THE
24 FEDERAL CIRCUIT. IT APPEARS IN SOME CLAIMS.

25 OTHER CLAIMS REFER TO, YOU KNOW, AN

1 OPERATION CODE SPECIFYING A READ OPERATION.

2 SO IT -- RECEIPT OF A READ REQUEST OR
3 AN OPERATION CODE SPECIFYING A READ OPERATION, I'M
4 NOT SURE IF THERE ARE ANY OTHER TERMS USED IN THE
5 CLAIMS FOR THAT IDEA.

6 THE COURT: SO YOU'RE CONCERNED THAT
7 "TRANSACTION REQUEST" MAY MEAN SOMETHING DIFFERENT
8 THAN "RECEIPT OF A READ REQUEST"?

9 MR. DETRE: WELL, MY CONCERN IS WHEN IT
10 SAYS THAT THE DEVICE MUST WAIT BEFORE RESPONDING TO
11 A TRANSACTION REQUEST, IT DOESN'T NAIL DOWN THAT
12 YOU START THE TIME RUNNING FROM WHEN YOU RECEIVE
13 THE TRANSACTION REQUEST.

14 BUT IT COULD BE CONCEIVABLY ARGUED THAT
15 THIS IS -- THAT A TRANSACTION REQUEST IS RECEIVED,
16 A COUPLE OF CLOCK CYCLES GO BY, AND THEN THERE'S A
17 CLOCK EDGE RIGHT BEFORE THE OUTPUT OF DATA FOLLOWED
18 BY THIS TIMING PARAMETER, T_{AC} , AND THAT THAT T_{AC}
19 COULD BE CONSIDERED A TIME THAT THE DEVICE MUST
20 WAIT BEFORE RESPONDING TO THAT TRANSACTION REQUEST
21 THAT WAS RECEIVED A COUPLE OF CLOCK CYCLES BEFORE,
22 THAT IT DOESN'T SPECIFY, IN THE SAME DEGREE OF
23 DETAIL AS THE CLAIM ITSELF, WHAT THE BEGINNING
24 POINT IS OF THIS VALUE STORED IN THE ACCESS TIME
25 REGISTER.

1 SO THAT'S MY CONCERN.

2 AND I THINK IT'S UNNECESSARY GIVEN THAT
3 THE CLAIMS THAT USE THE TERM ACTUALLY DO SPELL THIS
4 OUT.

5 THE COURT: OKAY. I'M STILL A LITTLE BIT
6 LOST, TO BE HONEST WITH YOU, AS TO WHAT THE PROBLEM
7 IS WITH THE WAY -- I'M INTERPRETING MY CLAIM
8 CONSTRUCTION TO BE EXACTLY WHAT YOU SAY.

9 I GUESS I'D LIKE TO HEAR FROM HYNIX IF IT
10 THINKS IT SAYS SOMETHING DIFFERENT.

11 MR. BROWN: WE -- SORRY, YOUR HONOR.

12 I THINK WE INTERPRET IT THE SAME WAY,
13 TOO, THE SAME WAY AS YOU'RE INTERPRETING IT AND THE
14 SAME WAY AS MR. DETRE IS INTERPRETING IT.

15 YOU MIGHT HAVE A LITTLE MORE SPECIFICITY
16 IF YOU SAID "A DATA STORAGE ELEMENT," I THINK THIS
17 IS REALLY GILDING THE LILLY, "TO STORE A VALUE
18 REPRESENTATIVE OF A TIME A DEVICE MUST WAIT FROM
19 RECEIVING A TRANSACTION REQUEST BEFORE RESPONDING
20 TO A TRANSACTION REQUEST."

21 MR. DETRE: I AGREE, YOUR HONOR. THAT
22 WOULD BE MORE PRECISE.

23 THE COURT: ALL RIGHT. THAT'S EASY.

24 OKAY. IS THAT IT FOR TODAY?

25 MR. DETRE: YOUR HONOR, JUST ONE LAST

1 POINT I'D LIKE TO RAISE.

2 ONE -- THERE WAS A LONG TIME SPENT ON
3 "SYNCHRONOUS MEMORY DEVICE." THE PARTIES HAVE NOT
4 HAD A LOT OF TIME TO DIGEST YOUR TENTATIVE CLAIM
5 CONSTRUCTION, AND TO THE EXTENT THAT YOUR HONOR
6 THINKS IT WOULD BE HELPFUL, WE -- IT MIGHT MAKE
7 SENSE FOR US TO SUBMIT SOME ADDITIONAL BRIEFING ON
8 THAT ONE TERM IF YOUR HONOR THINKS THAT THE COURT
9 WOULD BENEFIT FROM THAT.

10 THE COURT: AT THIS POINT I'M NOT SURE I
11 DO. I THINK IT'S BEEN PRETTY THOROUGHLY ARGUED.

12 DID YOU WANT TO SUBMIT SOMETHING FURTHER?

13 MR. BROWN: I DO NOT SEE ANY NEED TO, BUT
14 I'LL AGREE WITH MR. DETRE THAT IF THE COURT THINKS
15 IT MIGHT BE HELPFUL, I'D BE WILLING TO.

16 THE COURT: OKAY. WHY DON'T I TELL YOU
17 TOMORROW WHEN WE MEET?

18 MR. DETRE: THANK YOU, YOUR HONOR.

19 THE COURT: ALL RIGHT. I TAKE IT NOBODY
20 HAD ANY REQUEST TO PROVIDE DATA, OR DATA --

21 MR. DETRE: I BELIEVE THAT WAS -- SORRY.

22 MR. BROWN: DURING THE BRIEFING, WE
23 DECIDED IT WAS THE SAME AS A READ REQUEST.

24 THE COURT: OKAY. ALL RIGHT.

25 SO WE'LL SEE YOU TOMORROW AT 2:00, OR IS

1 THERE SOMETHING ELSE SOMEBODY WANTED TO BRING UP?

2 MR. BROWN: NO.

3 MR. DETRE: NO, YOUR HONOR.

4 THE COURT: OKAY. THANK YOU.

5 MR. DETRE: THANK YOU.

6 THE COURT: DON'T WAIT FOR ME, BECAUSE
7 I'M GOING TO GATHER SOME STUFF.

8 MR. BROWN: SO ARE WE.

9 (WHEREUPON, THE PROCEEDINGS IN THIS
10 MATTER WERE CONCLUDED.)

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CERTIFICATE OF REPORTER

I, THE UNDERSIGNED OFFICIAL COURT
REPORTER OF THE UNITED STATES DISTRICT COURT FOR
THE NORTHERN DISTRICT OF CALIFORNIA, 280 SOUTH
FIRST STREET, SAN JOSE, CALIFORNIA, DO HEREBY
CERTIFY:

THAT THE FOREGOING TRANSCRIPT,
CERTIFICATE INCLUSIVE, CONSTITUTES A TRUE, FULL AND
CORRECT TRANSCRIPT OF MY SHORTHAND NOTES TAKEN AS
SUCH OFFICIAL COURT REPORTER OF THE PROCEEDINGS
HEREINBEFORE ENTITLED AND REDUCED BY COMPUTER-AIDED
TRANSCRIPTION TO THE BEST OF MY ABILITY.



LEE-ANNE SHORTRIDGE, C.S.R.
CERTIFICATE NUMBER 9595