

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

XILINX, INC.,

Petitioner

V.

POLARIS INNOVATIONS LIMITED,

Patent Owner

IPR2023-00516

Patent No. 6,157,589

The remote, videotaped deposition of
R. JACOB BAKER, Ph.D., P.E., called for examination
pursuant to the Rules of Civil Procedure for the United
States Patent Trial and Appeal Board pertaining to the
taking of depositions, taken before Margaret M. Lanier,
CSR (IL), RMR, CRR, via the Zoom platform, on
November 10, 2023, at the hour of 6:55 a.m.

2 (Pages 2 to 5)

Page 2	Page 4
1 A P P E A R A N C E S: 2 McDERMOTT WILL & EMERY, by 3 MR. AASHISH KAPADIA 4 300 Colorado Street 5 Suite 2200 6 Austin, Texas 78701 7 (512) 298-6488 8 akapadia@mwe.com 9 10 Representing the Petitioner; 11 12 NELSON BUMGARDNER CONROY PC, by 13 MR. JON RASTEGAR 14 2727 N. Harwood 15 Suite 250 16 Dallas, Texas 75201 17 (214) 755-4867 18 jon@nelbum.com 19 20 Representing the Patent Owner. 21 22	1 I N D E X 2 WITNESS EXAMINATION 3 4 R. JACOB BAKER, Ph.D., P.E. 5 EXAMINATION BY MR. RASTEGAR 6 6 * * * * 7 E X H I B I T S 8 9 NUMBER MARKED FOR ID 10 Baker Deposition Exhibit 11 Exhibit 1 Declaration of R. Jacob 9 12 Exhibit 2 Baker, Ph.D., P.E. 11 13 Exhibit 3 copy of U.S. patent No. 7,532,523 13 14 Exhibit 4 U.S. patent No. 7,433,992 13 15 to Bains 16 Exhibit 5 Petition For Inter Partes 13 17 Review of U.S. Patent No. 7,532,523 18 * * * * 19 20 21 22
Page 3	Page 5
1 ALSO PRESENT: 2 3 MR. GUS PHILLIPS, VIDEOGRAPHER 4 5 * * * * 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	1 THE VIDEOGRAPHER: We are now on the record 2 for the video deposition of Dr. Jacob Baker. The time 3 is 6:55 a.m., November 10, 2023, In the Matter of XILINX 4 Incorporated versus Polaris Innovations Limited, 5 Patent No. 6,157,589, IPR No. 2023-00516, being held in 6 the United States Patent and Trademark Office before the 7 Patent Trial and Appeal Board. 8 The court reporter is Margaret Lanier and the 9 videographer is Gus Phillips. And both are 10 representatives of Gregory Edwards Court Reporting. 11 Will counsel please state their appearances 12 for the record, beginning with the petitioner. 13 MR. RASTEGAR: Jon Rastegar of Nelson 14 Bumgardner Conroy on behalf of patent owner Polaris 15 Innovations Limited. 16 I apologize, Aashish, I jumped over your 17 introduction. 18 MR. KAPADIA: No worries. 19 Aashish Kapadia for Petitioner XILINX, 20 Incorporated. 21 And I believe in the announcement the wrong 22 patent number and case number was announced.

3 (Pages 6 to 9)

Page 6 1 THE VIDEOGRAPHER: I apologize, counsel. I 2 may have misinformation. 3 MR. RASTEGAR: The case number that we're here 4 for today is IPR2022-00513. 5 THE VIDEOGRAPHER: I apologize, counsel. 6 Thank you for the correction. 7 Will the court reporter please administer the 8 oath. 9 (Witness administered an oath.) 10 R. JACOB BAKER, Ph.D., P.E., 11 having been first administered an oath, was examined and 12 testified as follows: 13 EXAMINATION 14 BY MR. RASTEGAR: 15 Q. Please state your name. 16 A. Before we get going, are you going to depose 17 me without your video on? 18 Q. Yes. 19 A. Oh. I didn't realize that was an option. 20 I'll go ahead and turn mine off as well. 21 Q. No, no. Dr. Baker, you need to keep your 22 video on.	Page 8 1 A. If I do, I will tell you. 2 Q. Are you able to receive chats or messages on 3 your laptop? 4 A. Via the Zoom chat feature, yes. No other way. 5 Q. You don't have the ability to send e-mails on 6 your laptop? 7 A. I can open up my e-mail and login, if that's 8 useful, yes. 9 Q. Okay. Will you agree to state during the 10 deposition whether you receive any messages? 11 A. Yes. 12 Q. Is there anyone else in the room with you, 13 Dr. Baker? 14 A. No. 15 Q. Will you agree to alert us if anyone enters 16 the room? 17 A. Yes. 18 Q. Dr. Baker, you're here today because you 19 offered a declaration in support of the petition for 20 inter partes review in IPR2022-00513, correct? 21 A. I don't remember the number off my head, but 22 that sounds right, yes.
Page 7 1 A. I would request, then, that you keep your 2 video on. 3 Q. That's not possible the way my computer system 4 is set up. 5 Please state your name. 6 A. Well, I guess -- is this okay with the court 7 reporter that the attorney doesn't turn on their video? 8 Because I've had this happen once before, and the court 9 reporter was not okay with it. And I've been in trial 10 and the judge has instructed the attorney not to turn 11 their video off during the proceedings. 12 So I'll go ahead and proceed. I just want to 13 say I don't agree with this. I don't think it's 14 respectful to me or the process. 15 My name is Russel, R-u-s-s-e-l, Jacob, 16 J-a-c-o-b, Baker, B-a-k-e-r. 17 Q. Dr. Baker, do you have any materials with you 18 today? 19 A. I have my laptop computer, but I have nothing 20 open. 21 Q. Are you intending to open any materials during 22 today's deposition?	Page 9 1 MR. RASTEGAR: Gus, if you could please pull 2 up tab number one. Tab number one will be marked as 3 Exhibit No. 1. 4 (Whereupon, Baker Deposition Exhibit 1 5 was marked for identification.) 6 BY MR. RASTEGAR: 7 Q. Dr. Baker, on your screen now is what has been 8 marked as Exhibit No. 1. Exhibit No. 1 is a copy of 9 your declaration in this IPR. 10 Do you recognize Exhibit 1? 11 A. Yes. 12 Q. Who prepared Exhibit No. 1? 13 A. I did with XILINX counsel. 14 Q. Was anyone else involved in the preparation? 15 A. No, not that I can think of. 16 Q. How much were you paid for this declaration? 17 A. I don't remember. If I had to guess, I would 18 guess 20 to 30 hours at \$655. So somewhere between 15 19 and \$20,000. 20 Q. Are you owed any money from XILINX at the 21 moment? 22 A. No.

4 (Pages 10 to 13)

Page 10 1 Q. How much have you been paid by XILINX to date? 2 A. If I had to guess, I would say 30 to \$40,000. 3 Q. Are you working for XILINX on any other 4 matters? 5 A. I don't believe so. 6 Q. So you believe this declaration involved 15 to 7 \$20,000 worth of work, correct? 8 A. If I had to guess, that would be what I would 9 guess. But it could be more, it could be less, 10 depending on the overlap with the other declaration I 11 wrote. 12 Q. Are you engaged by XILINX on any other 13 matters? 14 A. No, not that I recall. 15 Q. Are you engaged by AMD in any other matters? 16 A. I don't believe so. 17 Q. Do you plan to do any work for either XILINX 18 or AMD in the future? 19 A. If I'm asked to, yes. 20 Q. But you're not currently in any discussions to 21 do so, correct? 22 A. Not that I recall.	Page 12 1 A. Yes, that sounds right. 2 Q. I'm going to refer to claims 1, 2, 5, 6, 9 and 3 10 of the '523 patent as the challenged claims. 4 Does that make sense? 5 A. Yes. 6 Q. Your declaration also expresses opinions 7 regarding U.S. patent No. 7,433,992 to Bains, correct? 8 A. I don't remember the patent number for Bains. 9 But, yes, I have opinions about Bains and how it teaches 10 the claims of the '523. 11 MR. RASTEGAR: Objection, nonresponsive. 12 BY MR. RASTEGAR: 13 Q. Dr. Baker, please just answer the question 14 that I've asked you and not anything else. 15 Does that make sense? 16 A. Yes, sir. I did answer your question. 17 I don't remember the specific number of Bains, 18 but I do remember the name. Bains is the name of the 19 patent that I used to discuss the invalidity of the 20 claims in the '523. 21 MR. RASTEGAR: Gus, if you'd please pull up 22 tab No. 2.
Page 11 1 Q. In your declaration, you express opinions 2 regarding U.S. patent number 7,532,523, correct? 3 A. The '532 -- '523 patent, yes. 4 MR. RASTEGAR: Gus, if you could please pull 5 up tab number three. Tab number three will be marked as 6 Exhibit 2. And this is a copy of U.S. patent No. 7 7,532,523. 8 (Whereupon, Baker Deposition Exhibit 2 9 was marked for identification.) 10 BY MR. RASTEGAR: 11 Q. Dr. Baker, do you recognize Exhibit No. 2? 12 A. Yes. 13 Q. What is Exhibit No. 2? 14 A. It is the '523 patent in this matter. 15 Q. And you'll understand during today's 16 deposition if I refer to this '523 patent that I'm 17 talking about the patent shown in Exhibit No. 2, 18 correct? 19 A. Yes. 20 Q. In your declaration, you express opinions 21 regarding claims 1, 2, 5, 6, 9 and 10 of the '523 22 patent, correct?	Page 13 1 Tab No. 2 corresponds to U.S. patent No. 2 7,433,992 to Bains, and it will be marked as Exhibit 3 No. 3. 4 (Whereupon, Baker Deposition Exhibit 3 5 was marked for identification.) 6 BY MR. RASTEGAR: 7 Q. Dr. Baker, if I refer to Exhibit No. 3 as 8 Bains, will that make sense to you? 9 A. Yes. 10 Q. Your declaration also expresses opinions 11 regarding the purported January 2004 version of the 12 JESD79-2A standard, correct? 13 A. Yes. 14 MR. RASTEGAR: Gus, if you would please pull 15 up tab number five. 16 Tab number five will be marked as Exhibit 17 No. 4 and corresponds to the purported January 2004 18 version of the JESD79-2A standard. 19 (Whereupon, Baker Deposition Exhibit 4 20 was marked for identification.) 21 BY MR. RASTEGAR: 22 Q. Dr. Baker, during today's deposition if I

5 (Pages 14 to 17)

Page 14 1 refer to the JESD79-2A, do you understand that I'm 2 referring to what's shown in Exhibit 4, correct? 3 A. Yes. And was I supposed to be downloading 4 these exhibits as you introduced them? 5 Q. That's completely up to you. 6 During the course of today's deposition if I'm 7 asking questions about them, Gus can certainly put them 8 on the screen. 9 A. Okay. I'm downloading the exhibits you've 10 introduced. 11 Q. You contend that the Bains reference renders 12 the challenged claims obvious, correct? 13 A. I'm sorry, I can't get Exhibit 4. Has that 14 been posted? 15 THE VIDEOGRAPHER: Right above the words 16 "Exhibit 4," it will say "tab 5" with the blue download 17 icon. That will be the one you want. 18 THE WITNESS: Okay. 19 BY MR. RASTEGAR: 20 Q. Dr. Baker, did you hear the question that was 21 asked? 22 A. Yes. Give me a second. I'm trying to catch	Page 16 1 art would understand. 2 Q. Is that all you considered? 3 A. If there was extrinsic evidence that was 4 pointed to in the specification, I would have considered 5 that as well. 6 Q. Was there anything else you considered? 7 A. The level of skill that a person of ordinary 8 skill in the art would have at the time of the alleged 9 invention. 10 Q. Was there anything else you considered? 11 A. Maybe, but nothing pops into mind right now. 12 Q. In forming your opinions, did you consider 13 whether the preamble of claim 1 is limiting? 14 A. Yes, I considered that. 15 Q. Do you consider the preamble of claim 1 to be 16 limiting? 17 A. No. I discuss this in paragraph 72. You 18 asked if I considered it to be, and I answered yes. And 19 then your second question was more that I actually did 20 consider it limiting. 21 And as I wrote in paragraph 72, my 22 understanding is claim 1 is not limiting, yet I did an
Page 15 1 up. I didn't realize that the -- you were posting the 2 exhibits and so now I'm downloading them. And I'm 3 attempting to open them. 4 And the question was, it's my opinion that 5 Bains renders obvious the claims of the '523. And I'm 6 going right now to my declaration, the section on Bains. 7 And yes, as stated on page 35 of my 8 declaration right above or in paragraph 71, in my 9 opinion Bains renders obvious claims 1, 2, 5, 6, 9 and 10 10 of the '523 patent. 11 Q. It's also your opinion that the Bains 12 reference in combination with JESD79-2A renders the 13 challenged claims obvious, correct? 14 A. Yes. 15 Q. Before you formed an opinion regarding the 16 validity of the challenged claims, you first formed an 17 opinion as to the scope and meaning of each challenged 18 claim, correct? 19 A. Yes. I interpreted what the claims were 20 claiming by looking at the terms and understanding those 21 terms and how they're claimed in light of the 22 specification and what a person of ordinary skill in the	Page 17 1 analysis assuming that it was limiting. 2 Q. Dr. Baker, was your opinion based on claim 1's 3 preamble being limiting? 4 A. Are you asking me, is it my opinion that 5 claim 1's preamble is limiting or not limiting? 6 Q. No. 7 You expressed an opinion that claim 1 is 8 obvious in view of Bains, correct? 9 A. Yes. 10 Q. Is that opinion -- strike that. 11 In your opinion regarding claim 1 of the '523 12 patent -- strike that. 13 You analyzed the issue of whether claim 1 is 14 obvious in view of Bains, correct? 15 A. Yes. 16 Q. Did that analysis consider the preamble of 17 claim 1 to be limiting? 18 A. I don't think claim 1 is limiting, but I 19 assumed or did an analysis that it was. 20 Q. So your analysis in claim 1 is based on the 21 preamble being limiting, correct? 22 A. The analysis I did assumed the preamble was

6 (Pages 18 to 21)

Page 18 1 limiting, yes, as discussed in paragraph 72 of my 2 declaration. 3 Q. You contend that claim 1 comprises parts 1.P 4 through 1.6, correct? 5 A. Yes. 6 Q. You agree that claim 1 requires elements 1.1 7 through 1.6 to be on a memory chip, correct? 8 A. Yes. 9 Q. Are you able to see claim 1, Dr. Baker? 10 A. Yes. 11 Q. Claim 1 requires a control command port for 12 receiving a control command signal, correct? 13 A. Yes. I list that portion of the claim on 14 page 41 of my declaration. I've labeled it 1.3 and its 15 entire of what is required for that particular element 16 is that control command port for receiving a control 17 command signal for affecting accessibility of the memory 18 chip. 19 Q. Dr. Baker, I'm simply asking for a yes-or-no 20 answer. 21 Does that make sense? 22 A. I didn't hear your question as a yes or no. I	Page 20 1 memories on one side of a DIMM but was not a command 2 that affected accessibility of a rank on the other side 3 of a DIMM. 4 And I'm using the term "DIMM," and I should 5 probably clarify what I'm saying. DIMM is D-I-M-M and 6 it stands for dual in-line memory module, and it's a 7 common memory or printed circuit board arrangement where 8 memory chips are placed. 9 Q. What is your position as to the meaning of 10 affecting the accessibility of the memory chip? 11 A. For example, that it can read, write or do a 12 refresh to the memory chip. 13 Q. Claim 1 requires a termination circuit, 14 correct? 15 A. (No response.) 16 Q. Dr. Baker, did you hear the question? 17 A. Yes. I was going to look at the entire claim 18 element which I've labeled 1.2 on page 39 and it starts 19 out "A termination circuit," yes. 20 Q. Claim 1 requires the termination circuit be 21 connected to a control circuit, correct? 22 MR. KAPADIA: Objection, misstates the
Page 19 1 heard you ask about a portion of a claim element and I 2 simply wanted to make sure that the entire claim element 3 was read and that was what we were talking about. 4 Q. Dr. Baker, you don't get to answer the 5 questions you want to be asked, you get to answer the 6 questions I ask you. 7 Does that make sense? 8 A. Yes, sir, and I am answering your questions. 9 Q. Okay. Claim 1 requires a control command port 10 while receiving a control command signal, correct? 11 A. That is part of claim 1, yes. 12 Q. Specifically, the command port is for 13 receiving a control command signal affecting the 14 accessibility of the memory chip, correct? 15 A. Yes. 16 Q. What is an example of a control command signal 17 that does not affect the accessibility of the memory 18 chip? 19 A. An example would be one that comes from the 20 memory controller that does not go to the memory chip. 21 Q. What is the -- an example of such a command? 22 A. For example, a command that went to a rank of	Page 21 1 language of the claim. 2 BY THE WITNESS: 3 A. A termination circuit is required to be 4 coupled to the terminal and configured to terminate the 5 terminal according to a settable resistance value. 6 MR. RASTEGAR: Objection, nonresponsive. 7 BY MR. RASTEGAR: 8 Q. Claim 1 requires the termination circuit to be 9 connected to a control circuit, correct? 10 MR. KAPADIA: Objection, misstates facts. 11 BY THE WITNESS: 12 A. I do not see that text or those specific words 13 in claim 1. But if you point me to where you're 14 referring, I will look and review. 15 BY MR. RASTEGAR: 16 Q. You've studied claim 1, correct? 17 A. Yes, that's why I answered your words that 18 you're using for claim 1 are not in claim 1. But, 19 again, if I'm making a mistake, please point me to where 20 they are and I will correct myself. 21 Q. Dr. Baker, you were opining that the '523 22 patent is invalid, correct?

7 (Pages 22 to 25)

Page 22 1 MR. KAPADIA: Objection, misstates testimony. 2 BY THE WITNESS: 3 A. That some of the claims of the '523 patent are 4 invalid, yes. 5 BY MR. RASTEGAR: 6 Q. So you're taking the position that you know 7 more than the Patent Office knew when it issued this 8 patent, correct? 9 A. I'm taking the position that I considered 10 different prior art than the Patent Office did. And in 11 considering that different prior art, I rendered an 12 opinion that the claims were invalid. 13 Q. So it's your position that the Patent Office 14 got this wrong, correct? 15 MR. KAPADIA: Objection, misstates testimony. 16 BY THE WITNESS: 17 A. I'm not sure that the Patent Office got that 18 wrong in light of the prior art that they considered. 19 However, it's my position that had they considered the 20 prior art I did, they would have come to the same 21 conclusion that the claims at issue are invalid. 22 Q. And, yet, you can't even say with certainty	Page 24 1 something slightly different and using the term 2 "coupled" and then also not following up with what is 3 also required of the control circuit. 4 Q. Dr. Baker, I have repeatedly asked you the 5 same question and you have not been able to answer. I'm 6 going to ask it one more time. 7 MR. KAPADIA: Objection, argumentative. 8 BY MR. RASTEGAR: 9 Q. Does that make sense, Dr. Baker? 10 A. That you're going to ask me a question again? 11 Yes. 12 Q. Claim 1 requires the termination circuit be 13 connected to a control circuit, correct? 14 A. In part of claim 1, yes. 15 Q. Claim 1 requires the control circuit set the 16 resistance value that is used to terminate the terminal, 17 correct? 18 A. I mean, those aren't the exact words that are 19 used in the claim. But I think just sitting here right 20 now, I don't think I disagree with that. 21 Q. Dr. Baker, that answer sounded like a double 22 negative, "I don't think I disagree with that." Does
Page 23 1 whether or not claim 1 requires the termination circuit 2 be connected to a control circuit? 3 MR. KAPADIA: Objection, form. Objection, 4 misstates testimony. 5 BY THE WITNESS: 6 A. Claim 1 requires a control circuit connected 7 to the termination circuit and configured to set the 8 resistance value as the function of the received control 9 command signal. 10 My understanding is you are not using those 11 exact words, and so I -- the words of the claim are 12 important, and so I'm focusing on what is used in the 13 claim as they are written. 14 BY MR. RASTEGAR: 15 Q. But you agree that claim 1 requires a control 16 circuit that is connected to the termination circuit, 17 correct? 18 A. In part, yes. 19 Q. But you are unable to agree that claim 1 20 requires the termination circuit be connected to a 21 control circuit? 22 A. If memory serves, I think you are asking	Page 25 1 that make sense? 2 A. Yes. The problem I'm having is the claim says 3 what the claim says and you're using words that are 4 trying to describe or indicate what the claim says 5 instead of using the words of the claim, if I'm making 6 any sense. 7 Q. And I'm trying to understand your opinion 8 expressed in your declaration. Does that make sense? 9 A. Yes. 10 Q. Okay. Claim 1 requires the control circuit 11 set the resistance value that is used to terminate the 12 terminal, correct? 13 A. Yes. In claim 1.5, it says, just to be more 14 precise: 15 "A termination port to receive a 16 termination signal wherein the control 17 circuit is configured to selectively 18 terminate the terminal with a set 19 resistance value in response to the 20 termination signal." 21 Q. Claim 1 requires a termination port for 22 receiving a termination signal, correct?

Page 26 1 A. Yes. 2 Q. Claim 1 requires that the control circuit is 3 configured to selectively terminate the terminal in 4 response to the termination signal, correct? 5 A. With a set resistance, yes. 6 Q. Claim 1 requires the control circuit to act in 7 response to the termination signal, correct? 8 A. Yes. It's what I read earlier in claim 1.5 of 9 section F, I've called it, on page 47 of my declaration. 10 Q. Dr. Baker, I'm not asking for anything outside 11 of my question here. Does that make sense? 12 A. I am understanding you want me to truthfully 13 answer your questions and that's what I'm trying to do. 14 Q. Dr. Baker, I have your declaration. I'm 15 asking you a yes-or-no question. Does that make sense? 16 A. I understand you want yes-or-no answers where 17 you're using slightly different words that are used or 18 adding or omitting words used in the claim element, and 19 I'm trying to make sure my answers are taken in light of 20 what's claimed, not specifically the question you've 21 asked which have added words or removed words. 22 If you'd like me to only answer "yes," "no,"	Page 28 1 the control circuit to do something, correct? 2 A. Could you repeat the question, please? 3 Q. The termination signal in claim 1 must cause 4 the control circuit to do something, correct? 5 A. Which exhibit or tab was the '532 patent? 6 Q. It's Exhibit 2, tab 3. 7 A. I'm downloading the '532 patent — or sorry, 8 '523 patent. 9 And would you mind repeating the question? 10 Q. The termination signal in claim 1 must cause 11 the control circuit to do something, correct? 12 A. Yes. Claim 1 says that the termination signal 13 is used with the control circuit to selectively 14 terminate the terminal with a set resistance value. 15 Q. The termination signal in claim 1 must cause 16 the control circuit to terminate the terminal, correct? 17 MR. KAPADIA: Objection, form. 18 BY THE WITNESS: 19 A. I think the answer to that is "yes." But just 20 to be clear, the claim requires the termination port to 21 receive a termination signal wherein the control circuit 22 is configured to selectively terminate the terminal with
Page 27 1 "I can't answer that," then I'm happy to do that. But 2 the majority of the answers would be "I can't answer 3 that" simply because you're changing things from what's 4 claimed slightly. 5 Q. Dr. Baker, "yes," "no" or "I can't answer 6 that" is just fine by me. Does that make sense? 7 A. Yes. 8 Q. Claim 1 requires that the control circuit is 9 configured to selectively terminate the terminal in 10 response to the termination signal, correct? 11 MR. KAPADIA: Objection, form. 12 BY THE WITNESS: 13 A. In part, yes. 14 BY MR. RASTEGAR: 15 Q. Claim 1 requires the control circuit act in 16 response to the termination signal, correct? 17 MR. KAPADIA: Objection, form. 18 BY THE WITNESS: 19 A. I don't see the word "act" in the claim or 20 anywhere in my declaration, so no. 21 BY MR. RASTEGAR: 22 Q. The termination signal in claim 1 must cause	Page 29 1 the set resistance value in response to the termination 2 signal. 3 BY MR. RASTEGAR: 4 Q. So in response to the termination signal, the 5 control circuit selectively terminates the terminal, 6 correct? 7 A. Well, the previous element requires the 8 control circuit connected to the termination circuit. 9 The termination circuit is doing the terminating and the 10 control circuit is configured to control the termination 11 circuit and set the resistance value as a function of 12 the received control command signal. 13 MR. RASTEGAR: Objection, nonresponsive. 14 BY MR. RASTEGAR: 15 Q. Dr. Baker, would you like to have my question 16 re-read to you? 17 A. No, thank you. I believe I did answer your 18 question. 19 Q. In response to the termination signal, the 20 control circuit is configured to selectively terminate 21 the terminal with the set resistance value, correct? 22 MR. KAPADIA: Objection to form.

Page 30 1 BY THE WITNESS: 2 A. No. I mean, you're leaving out what is 3 actually doing the terminating, which is the terminating 4 circuit. 5 As I pointed out in my previous answer, the 6 control circuit with the termination circuit are doing 7 the overall controlling and terminating of the signal as 8 claimed in the claim elements. 9 It's not the control circuit by itself 10 providing a termination. Rather, as claimed, the 11 termination provides the termination, and the control 12 circuit is connected to the termination circuit and 13 configured to set the resistance. 14 BY MR. RASTEGAR: 15 Q. So it's your position that claim 1 does not 16 require the control circuit to selectively terminate the 17 terminal with set resistance value in response to the 18 termination signal? 19 MR. KAPADIA: Objection, misstates testimony. 20 BY THE WITNESS: 21 A. No. It's my opinion that the control circuit 22 is connected to the termination circuit and configured	Page 32 1 Q. You understood the oath you took, correct? 2 A. Yes. That's why I testified a moment ago I'm 3 here to answer the questions truthfully. 4 Q. Okay. So that's not the questions that you 5 want me to ask, that's the questions that I ask you. 6 Does that make sense? 7 A. I am truthfully answering your questions, yes. 8 Q. So this is not about what you want to convey 9 to the APJ's, this is about answering the questions you 10 are asked; is that clear? 11 A. Not really. I am answering the questions that 12 you are asking me, but I am trying to make sure that 13 it's truthful and clear. 14 Q. Dr. Baker, if your testimony is unclear or 15 misleading, your attorney can redirect you with 16 questions of his own. Does that make sense? 17 A. It makes sense, but I think it makes more 18 sense for me to answer truthfully and clear to begin 19 with. 20 Q. No. It makes sense for you to answer 21 truthfully the questions that I ask you. The problem 22 here is that you are afraid to answer what I'm asking
Page 31 1 to set the resistance value as a function of the 2 received control command signal. 3 The resistance is provided by the termination 4 circuit and the control circuit is connected to the 5 termination circuit and configured to set the resistance 6 value. 7 BY MR. RASTEGAR: 8 Q. Dr. Baker, I'm just looking for a yes-or-no 9 answer. And if that's not possible, "I can't answer 10 that" is also an option. Does that make sense? 11 A. Yes. But I thought about that and it wouldn't 12 be helpful to the APJ's reading the deposition 13 testimony. So I'm going to try to make sure my answers 14 are clear and helpful and truthful. 15 Q. Dr. Baker, you are here to answer the 16 questions I ask you. Does that make sense? 17 A. Yes. I would only add that I'm here to answer 18 them truthfully and clearly. 19 Q. You're here to answer truthfully, yes; you 20 took an oath for that. Does that make sense? 21 A. Yes, I took to oath to answer the 22 answers -- or the questions truthfully.	Page 33 1 you. 2 MR. KAPADIA: Objection, argumentative. 3 Counsel, if you're going to argue with the 4 witness, maybe we should take a break. 5 MR. RASTEGAR: I am not arguing with the 6 witness. I am simply explaining to the witness his 7 obligation to answer the questions. 8 MR. KAPADIA: Do you have any further 9 explanation? 10 BY MR. RASTEGAR: 11 Q. Dr. Baker, do you understand you're here to 12 answer the questions that are posed to you? 13 A. Yes. 14 Q. Claim 1 requires that in response to the 15 termination signal, the control circuit be configured to 16 selectively terminate the terminal, correct? 17 A. I think I understand what you're looking at. 18 The last element on the bottom of claim -- of column 8 19 says: 20 "Wherein, the control circuit, as a 21 function of the termination signal, 22 selectively performs one of: (i)

10 (Pages 34 to 37)

Page 34 1 terminates the terminal with the set 2 resistance value after a first time 3 delay; and (ii) does not terminate the 4 signal or does not terminate the terminal 5 in accordance with the second time delay, 6 the first time delay being sufficiently 7 longer long to set the resistance value." 8 And my answers were focused on the fact that 9 earlier in the claim, the control circuit is connected 10 to the termination circuit. And so I was trying to make 11 it clear that the termination circuit or the resistors 12 in the termination circuit, which are controlled by the 13 control circuit, are the actual resistors that are used 14 to terminate the -- to terminate the -- or provide the 15 termination. 16 MR. RASTEGAR: Objection, nonresponsive. 17 BY MR. RASTEGAR: 18 Q. Dr. Baker, yes or no, does claim 1 require the 19 control circuit in response to the termination signal be 20 configured to selectively terminate the terminal? 21 MR. KAPADIA: Object to form. 22 BY THE WITNESS:	Page 36 1 clearly what is discussed in the specification. 2 And if I say no, then that's incorrect as well 3 because the control circuit is what controls the 4 termination circuit and provides the value of the 5 resistance for the -- to terminate the signal. 6 Q. You understand the elements of claim 1 create 7 requirements, correct? 8 A. Yes. 9 Q. Okay. So I'm asking whether it is a 10 requirement of claim 1 that in response to the 11 termination signal, the control circuit is configured to 12 selectively terminate the terminal? 13 MR. KAPADIA: Objection, form. 14 BY THE WITNESS: 15 A. Portion -- yes. The portion of the claim that 16 you're presumably talking about I'll read and -- 17 BY MR. RASTEGAR: 18 Q. Dr. Baker, I'm not asking for you to go on a 19 rambling rant. I'm asking for a yes-or-no answer. 20 Yes or no, in claim 1 is the control circuit 21 required in response to the termination signal to 22 selectively terminate the terminal?
Page 35 1 A. I'm not disagreeing with your question, but 2 you're leaving out the fact that if you take that 3 question literally, it's saying the control circuit is 4 providing the termination. 5 But I don't think it would be reasonable or 6 accurate because -- to take that position because it's 7 the termination circuit that has the resistors in it, 8 it's the termination circuit that is used to terminate 9 the signal, and it's the termination signal that -- or 10 the control circuit that controls the termination 11 circuit. 12 So I'm not arguing in part. But I mean, 13 literally, saying the control circuit terminates the 14 signal is -- by itself is incorrect. It does so with 15 the termination circuit is the point I'm trying to get 16 at. 17 BY MR. RASTEGAR: 18 Q. Dr. Baker, is there a reason you can't answer 19 this question yes or no? 20 A. Because either one would be partially 21 incorrect. If I say yes, then I'm leaving out the 22 termination circuit, which is clearly claimed and is	Page 37 1 MR. KAPADIA: Objection, form. 2 BY THE WITNESS: 3 A. I would say yes, but that is in light of how 4 it does it with the termination circuit as claimed. 5 BY MR. RASTEGAR: 6 Q. Dr. Baker, would you please pull up the Bains 7 reference. 8 A. I have it. 9 Q. In column 4 of Bains, do you see the paragraph 10 that begins on line 26? 11 A. That starts, "There are various ways"? 12 Q. Correct. 13 A. Yes. 14 Q. This paragraph states that the control 15 circuitry 32 controls whether ODT38 is on, correct? 16 A. I mean, the paragraph states a lot. I 17 don't -- I mean, is there some specific part of it you 18 want me to focus on? 19 Q. Please look towards line 39. 20 A. Yes. I see the sentence that says, "control 21 circuitry 32 controls the switches and, hence, whether 22 ODT38 is on."

11 (Pages 38 to 41)

Page 38 1 Q. Turning to figure 2 of Bains, do you agree 2 that this shows control circuitry 32 and ODT38 reside on 3 MC0? 4 A. Yes, 32 and 38 are on MC0 in figure 1 -- or 5 figure 2, sorry. 6 Q. And going back to that paragraph in column 4, 7 beginning on line 26 and continuing through line 46, 8 would you take a moment to read that paragraph and let 9 me know when you're done. 10 A. Where was it you said? 11 Q. Column 4, beginning on line 26 and concluding 12 on line 46. 13 (Witness reviews document.) 14 BY THE WITNESS: 15 A. Okay. 16 BY MR. RASTEGAR: 17 Q. According to the paragraph you just read, the 18 number of switches may determine the amount of 19 resistance in the termination circuit, correct? 20 A. Which switches are on and off, yes. 21 Q. And Bains explains that various commands can 22 be used to cause resistance in the ODT, correct?	Page 40 1 A. Yes. I pointed out in figure 2, the annotated 2 figure 2 on page 42 of my declaration, that either MC0 3 or MC1 could be a memory chip. But yes, MC0 is the one 4 I annotated to point to the various elements in claim 1 5 of the '523. 6 Q. What component in MC0 do you contend 7 constitutes the terminal of claim 1? 8 A. So in figure 4, which I write about on page 9 38, it would be the terminal that I've labeled as the 10 pin going into the -- into the ODT circuit. 11 Q. Where would that be located on figure 2? 12 A. I've annotated that on page 40 of my 13 declaration where I've labeled "terminal" on the 14 termination circuit 38. 15 Q. And you've indicated that terminal's on the 16 left-hand side of that ODT38, correct? 17 A. Yes. 18 Q. What component in MC0 do you contend 19 constitutes the termination circuit? 20 A. 38. And I've annotated that on figure 2 of 21 page 40 of my declaration. 22 Q. What component in MC0 do you contend
Page 39 1 MR. KAPADIA: Objection, form. 2 BY THE WITNESS: 3 A. Commands can be used to cause levels. So very 4 different levels of resistance, yes. Different commands 5 can set different resistances, yes. 6 BY MR. RASTEGAR: 7 Q. As an example that Bains discloses beginning 8 on line 42 that command A1 may cause one level of 9 resistance in the ODT and that a separate command, A2, 10 may cause another level of resistance, correct? 11 A. Yes. 12 Q. Turning back to figure 2 of Bains, figure 2 13 discloses two different memory chips, MC0 and MC1, 14 correct? 15 A. Yes. 16 Q. And you contend that either MC0 or MC1 17 comprises the memory chip of claim 1, correct? 18 A. I didn't map either one. But, I mean, since 19 they're identical -- I mean, I didn't map both, I mapped 20 one. But yes, you could map either one. 21 Q. So you mapped MC0 to the memory chip of claim 22 1, correct?	Page 41 1 constitutes the control command port? 2 A. The left side of the control circuit 32, as 3 I've annotated in figure 2, which includes the chip 4 select and control lines that go into the control 5 circuit. 6 Q. What component in MC0 do you contend 7 constitutes the control circuit? 8 A. 32. 9 Q. What component in MC0 do you contend 10 constitutes the termination port of claim 1? 11 A. The terminal that I've annotated in that 12 figure 2. And I discuss that in more detail on page 52 13 of my declaration. 14 Q. So you contend that the terminal is also the 15 termination port, correct? 16 A. I'm sorry, not exactly. 17 The terminal is where the input signal comes 18 in. The termination port would be where the ODT signal 19 comes in, and that would be the -- would be -- it's not 20 in figure 2. But that would be where the ODT signal 21 would come in with the control. I mean, I shouldn't say 22 it's not in figure 2. It's not explicitly labeled. It

12 (Pages 42 to 45)

Page 42 1 would be where the ODT signal comes in to provide the 2 ODT signal, again, as I discuss on page 47. 3 So the terminal, I misspoke, is where the data 4 comes in. And the termination port would be where the 5 termination signal is received, which is the ODT or part 6 of the control to the control circuit. 7 Q. All right. In figure 2 you see a line going 8 down from control circuitry 32 to ODT38, correct? 9 A. Yes. 10 Q. Is it your position that that's where the 11 termination port would be? 12 A. No. 13 Q. Where in figure 2 would the termination port 14 be? 15 A. It would be with the control signals that go 16 into the control circuit. I mean, that's discussed in 17 Bains in column 1, line 37. It's part of the JEDEC 18 specification for controlling termination, so it's 19 widely known to a POSITA. 20 THE WITNESS: And when we get a good breaking 21 point, can we take a break? 22 MR. RASTEGAR: Sure. We can take a break now.	Page 44 1 declaration and the control command signal is received 2 on the control command port. And I've labeled the 3 control command port the left side of control circuit 32 4 in the annotated figure 2 on page 42 of my declaration. 5 BY MR. RASTEGAR: 6 Q. So, Dr. Baker, that answers where the control 7 command signal is received. My question was, what 8 constitutes the control command signal? 9 A. The chip select signal and then lines from the 10 control signals coming from the memory controller. 11 Q. What in Bains do you contend constitutes the 12 termination signal? 13 A. I guess that starting in page [sic] 84, that 14 the ODT signal, as taught in the JEDEC specification and 15 discussed in Bains starting in paragraph -- I'm sorry, 16 column 1, line 37, would be used for the termination 17 signal. 18 Q. You said page 84 of your declaration? 19 A. If I did, I misspoke. Paragraph 84. 20 Q. Okay. Can you show me where specifically in 21 your report you allege the JEDEC signal is the 22 termination signal?
Page 43 1 THE VIDEOGRAPHER: We are off the record. The 2 time is 8:03 a.m. 3 (Whereupon, a recess was taken 4 from 8:03 a.m. until 8:11 a.m.) 5 THE VIDEOGRAPHER: We are back on the record. 6 The time is 8:11 a.m. 7 BY MR. RASTEGAR: 8 Q. Dr. Baker, you contend that Bains discloses an 9 ODT pin, correct? 10 A. Yes. Part of that discussion is in paragraph 11 84 of my declaration. 12 Q. And you contend that ODT pin could satisfy the 13 termination port of claim 1, correct? 14 A. Yes. 15 Q. Claim 1 requires a control command signal, 16 correct? 17 A. Yes, in part. 18 Q. What element in Bains do you contend 19 constitutes the control command signal? 20 MR. KAPADIA: Objection, misstates testimony. 21 BY THE WITNESS: 22 A. I discuss that starting in paragraph 76 of my	Page 45 1 MR. KAPADIA: Objection, misstates testimony. 2 BY THE WITNESS: 3 A. Bains teaches a pin for controlling ODT in the 4 commands. Specifically -- 5 BY MR. RASTEGAR: 6 Q. Dr. Baker, my question was where in your 7 report. 8 A. Paragraph 84 I start discussing it. 9 Q. Can you read from your report the lines that 10 you contend say this? 11 MR. KAPADIA: Objection, misstates testimony. 12 BY THE WITNESS: 13 A. When you say "this," just to make sure I 14 understand what we're talking about, what is "this"? 15 Q. You've indicated today that you consider the 16 JEDEC command to be the termination signal, correct? 17 A. The ODT pin that's taught in JEDEC, yes. 18 Q. Dr. Baker, you indicated that the ODT pin is 19 the termination port, correct? 20 A. Yes. And the ODT signal is the termination 21 signal. 22 Q. You're contending that the signal received on

13 (Pages 46 to 49)

Page 46 1 the ODT pin is the termination signal, correct? 2 A. Yes. 3 Q. Dr. Baker, during the break we just had, did 4 you speak with anyone? 5 A. I spoke with my wife and my mother-in-law; 6 nobody else. 7 Q. Did you receive any messages during the break? 8 A. I had -- no, I had no communications with 9 anybody but my wife and my mother-in-law. 10 Q. Over the course of today's deposition, have 11 you received any communications from anyone? 12 A. No, I have not. 13 MR. RASTEGAR: If it works for you guys, I'd 14 like to take a five-minute break. 15 THE VIDEOGRAPHER: We are off the record. The 16 time is 8:19 a.m. 17 (Whereupon, a recess was taken 18 from 8:19 a.m. until 8:25 a.m.) 19 THE VIDEOGRAPHER: We are back on the record. 20 The time is 8:25 a.m. 21 BY MR. RASTEGAR: 22 Q. Dr. Baker, turning to figure 4 of Bains, do	Page 48 1 addition to the commands. So from that, a person of 2 ordinary skill in the art -- 3 Q. Dr. Baker -- Dr. Baker, that's not the 4 question I asked you. Answer the question I asked you, 5 please. 6 A. I discuss that in, for example, paragraph 86 7 where the ODT pin can be used in the memory system. 8 Q. Is there anywhere else in your report? 9 A. Paragraph 87, paragraph 88, and perhaps 10 others. If you would like me to take a while and see if 11 I can see other disclosures discussing -- or where I 12 wrote about Bains disclosing the ODT pin. 13 (Witness reviews document.) 14 BY MR. RASTEGAR: 15 Q. Dr. Baker, that's all the questions I have for 16 you at this time. I'll pass the witness. 17 MR. KAPADIA: No further questions. 18 THE VIDEOGRAPHER: Off record, counsel? 19 We are off the record. The time is 8:38 a.m. 20 (Whereupon, a discussion was had off the 21 record.) 22 THE REPORTER: Signature?
Page 47 1 you see on the left-hand side the pin pad that's 2 labeled? 3 A. Yes. 4 Q. That is where you contend the ODT pin would 5 be, correct? 6 A. No. 7 Q. You contend the ODT pin would be located in a 8 different position, correct? 9 A. Yes. 10 Q. Can you point me to the paragraph in your 11 report where you identify where the ODT pin is located? 12 A. So Bains does not show a figure with the ODT 13 pin embodiment. Bains discusses in it -- 14 Q. Dr. Baker, I'm asking for the paragraph in 15 your report where you state where the ODT pin would be 16 located. 17 A. Yes. Paragraph 84. 18 Q. Are there any other paragraphs in your report 19 where you contend you state where the ODT pin would be 20 located? 21 A. Just to be clear, in paragraph 84 I say that 22 the ODT pin would be -- Bains teaches the ODT pin in	Page 49 1 MR. KAPADIA: Yes. 2 THE REPORTER: Anyone getting a rough draft? 3 MR. RASTEGAR: I believe we are, yes. 4 THE REPORTER: Is that you, Jon? 5 MR. RASTEGAR: Yes. 6 THE REPORTER: And Aashish? 7 MR. KAPADIA: Yes, please send me one. 8 THE REPORTER: And then we have three-day 9 delivery. Was it your firm, Jon? 10 MR. RASTEGAR: Whatever our standard order is. 11 (Proceedings concluded at 8:38 a.m.) 12 13 14 15 16 17 18 19 20 21 22

14 (Page 50)

Page 50 1 CERTIFICATE OF COURT REPORTER 2 3 UNITED STATES OF AMERICA) 4 DISTRICT OF COLUMBIA) 5 6 I, MARGARET M. LANIER, Notary Public in the 7 District of Columbia, certify that the witness appeared 8 before me; that the witness was duly sworn; that I was 9 authorized to and did stenographically report the 10 proceedings in the above transcript; and that the 11 transcript is a true and complete record of my 12 stenographic notes. 13 I further certify that I am not a relative, 14 employee, attorney or counsel of any of the parties, nor 15 am I a relative or employee of any of the parties' 16 attorneys or counsel connected with the action to my 17 knowledge, nor am I financially interested in the 18 action. 19 <i>Margaret Lanier</i> 20 _____ MARGARET M. LANIER, CSR, RMR, CRR 21 Notary Public in and for the District of Columbia My commission expires: September 14, 2026 22	