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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
PATENT TRIAL AND APPEAL BOARD

IN RE PATENT OF:	)	
	)	
	)	
	)	CERTIFIED COPY
XILINX,	)	U.S. PATENT NO.:
	)	6,938,177
Petitioner,	)	
	)	PROCEEDING NO.:
vs.	)	IPR2023-00195
	)	
SENTIENT SENSORS, LLC,	)	
	)	
Patent Owner.	)	
_____	)	

REMOTE DEPOSITION OF JOHN CHARLES PECK, JR.

DATE: Wednesday, March 6, 2024
TIME: 9:28 a.m. - 10:28 a.m.
PAGES: 1 - 42

REFERENCE NUMBER 42653-0048IP1
JOB NUMBER 134368
REPORTED BY: KAITLYN B. HOUSTON, CA CSR 14170

A P P E A R A N C E S

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THE SULLIVAN GROUP OF COURT REPORTERS

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Exhibit 1004	Development of a DSP/MCM Subsystem Assessing Low-Volume, Low-Cost MCM Prototyping For Universities (not attached)	22
Exhibit 2019	Enhancement of MCM Testability Using an Embedded Reconfigurable FPGA (not attached)	23
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1 **REMOTE DEPOSITION VIA VIDEOCONFERENCING**

2 **March 6, 2024**

3 **---oOo---**

4 **BE IT REMEMBERED** that set on Wednesday, the 6th
5 day of March, 2024, commencing at the hour of
6 9:28 a.m. via remote videoconferencing before me,
7 Kaitlyn B. Houston, a Certified Shorthand Reporter,
8 personally appeared:

9 **JOHN CHARLES PECK, JR.,**

10 having been called as a witness, who having
11 been sworn by me to tell the truth, the whole truth
12 and nothing but the truth, was thereupon examined and
13 testified as hereinafter set forth.

14 **---oOo---**

15 **EXAMINATION BY MR. SHNEIDMAN**

16 Q. Good morning, sir. Can you state your full
17 name for the record.

18 A. Yes. My name is John Charles Peck, Jr.

19 Q. And you're here to provide expert testimony
20 on behalf of the patent owner, Sentient Sensors, for
21 IPR 2023-00195; is that correct?

22 A. That is correct.

23 Q. And where are you located today?

24 A. I'm in San Francisco, California.

25 Q. Beautiful city.

1 Is there any reason you cannot give
2 complete and truthful testimony today?

3 A. No, there's not.

4 Q. And if that changes for any reason, please
5 let me know. All right?

6 A. Okay.

7 Q. And although we're conducting this
8 deposition via videoconference, you understand you're
9 under oath as if you were in a court of law, correct?

10 A. Yes. I understand that.

11 Q. Have you been deposed by videoconference
12 before?

13 A. Yes, I have.

14 Q. Okay. You're familiar with the exhibit
15 manipulation, the Zoom chat, for example?

16 A. I've received exhibits via Zoom, and I'm
17 able to open them as PDFs, if that's what you're
18 asking me about.

19 Q. Yeah. Let me know if you have any
20 technical problems or if you can't open an exhibit.
21 All right?

22 A. Okay.

23 Q. And are you able to hear my questions
24 clearly right now?

25 A. Yes. I'm going to make an adjustment to

1 the volume on the computer I'm using --

2 Q. Sure.

3 A. -- to make it more audible.

4 Okay. I've done that now. We'll see how
5 it goes.

6 Q. Is this any better?

7 A. Yes, it is.

8 Q. Great. If you can't hear my questions,
9 just let me know, and I'm happy to repeat them.
10 Okay?

11 A. Okay.

12 Q. Are you in a place where you can testify
13 without being interrupted and your cell phone ringer
14 is off?

15 A. Yes.

16 Q. Is anyone else in the room with you right
17 now?

18 A. No.

19 Q. And can you confirm you have no written
20 materials with you right now; it's just the computer?

21 A. I have a computer, and I do have a clean
22 copy of my report that I printed this morning.

23 Q. Okay.

24 A. I also have a list of corrections to my
25 report that I discovered while reviewing my report,

1 and I could read those into the record if you'd like
2 them.

3 Q. Yeah. Just give me one moment. Hold on.
4 Let's come back to that in just a minute.

5 Do you have a PDF reader on the computer
6 that you're using right now?

7 A. I do.

8 Q. Okay. And I guess I direct you not to use
9 any applications in the deposition except for the
10 Zoom software or your PDF viewer and what the lawyers
11 upload as exhibits. Okay?

12 A. Okay.

13 Q. During my questions today, you're not
14 allowed to communicate with Sentient's counsel or
15 anyone else by any means regarding the subject matter
16 of your testimony.

17 Do you understand that?

18 A. Yes, I do.

19 Q. And I don't think today's deposition will
20 be very long, but if at any time you need to take a
21 break, just ask and we can do so. All right?

22 A. Okay.

23 Q. All right. With that said, do you want to
24 go ahead and let me know what corrections you have to
25 your expert report?

1 A. Yes. I'll read these.

2 So my report at paragraph 34, there's a
3 reference to Exhibit 2018. It's not listed in my
4 "materials considered" list but should have been.

5 Q. Okay.

6 A. The next one is at paragraph 41 of my
7 report at the bottom of page 18. There's a sentence
8 in my report that said -- that begins, "A POSA would
9 understand that the designs of D1 intended to control
10 bus to allow the processor to control the FPGA with
11 operational instructions including providing a clock
12 signal."

13 The "including providing a clock signal"
14 should have been with -- instead, quote, "With both
15 components relying on the same clock."

16 Q. And so to make sure that I have that
17 sentence, can you read the full sentence as
18 corrected, how it should read?

19 A. Yes. I can do that. "A POSA would
20 understand that the designs of D1 intended to control
21 bus to allow the processor to control the FPGA with
22 operational instructions with both components relying
23 on the same clock."

24 Q. Okay. Just one second there. Let me just
25 digest that a second here. Okay.

1 What's the next correction?

2 A. Next correction is at paragraph 60.
3 There's a sentence that currently reads, "It
4 necessarily means the FPGA runs independently and
5 parallel." That should have read, "Does not
6 necessarily mean the FPGA runs independently and
7 parallel." And this is -- this is supported by the
8 POR at page 2.

9 Q. Okay. Any other corrections?

10 A. Yes. Paragraph 61. The last sentence in
11 paragraph 61 says, "Marchal Exhibit 1035 explains
12 that it operates whatever program is contained in
13 memory." This was not actually a quote from Marchal,
14 but it was an excerpt from the Shanfield declaration
15 at his paragraph 147.

16 Q. Thank you. Any other corrections?

17 A. Yes. Just a handful more.

18 Paragraph 63, there's a citation to
19 Exhibit 10003 at Column 8, lines 49 to 53. That
20 should have been instead Column 5, lines 49 to 53.

21 Q. Okay. Any others?

22 A. Paragraph 68, the last sentence.
23 "Dr. Shanfield substantiate the assertion that"
24 should have been instead "Dr. Shanfield does not
25 substantiate." And that's supported by the POR at

1 page 36.

2 Q. Okay. Any other corrections?

3 A. A few final ones. Paragraph 71. The
4 second to last sentence, "Dehkordi show any
5 specialized" should have been instead "Dehkordi does
6 not show any specialized." And that's supported by
7 the POR at page 15 and page 39.

8 Q. Okay. Any others?

9 A. Final one. Paragraph 95. There's a
10 sentence that begins, "The petition references
11 provided to me do not FGAs." That should have
12 instead read, "The petition references provided to me
13 do not show that FGAs." And that's supported by the
14 POR at page 50.

15 Q. Okay. Any others?

16 A. That's it.

17 Q. Now I have a question: When you say that
18 these changes are supported by the POR, what do you
19 mean by that?

20 A. These were inconsistencies vis-a-vis the
21 POR, and I'm just citing that the POR is the basis
22 for understanding the correct -- the intended -- the
23 intended corresponding statements in my declaration.

24 Q. Okay. I think I understand what you're
25 saying. Thank you for the corrections.

1 Just to confirm, you're not relying on the
2 POR as support for your opinions there, correct?

3 A. No, I'm not.

4 Q. All right. Let me ask: When were you
5 engaged to start providing expert services in this
6 IPR matter?

7 A. I believe it was September -- around
8 September of 2023.

9 Q. Okay. Do you remember, at that point, had
10 the institution occurred?

11 A. I don't recall from memory. At some point
12 in time, I got a copy of the decision, but I haven't
13 memorized the dates on when those events took place.

14 Q. Okay. Are you aware that the '177 patent
15 has been asserted previously in district court
16 litigations?

17 A. I'm generally aware of that, yes.

18 Q. And I didn't see any of those cases on your
19 CV, so is it safe to assume that you haven't worked
20 on those matters?

21 A. Yes, that is correct.

22 Q. And then judging by the date,
23 September 2023, you weren't involved at all in
24 drafting the patent owner preliminary response in
25 this IPR matter, right?

1 A. That is correct.

2 Q. Were you involved at all in drafting the
3 patent owner response?

4 A. Well, I had discussions with counsel
5 about -- about the ideas of our response. And my
6 declaration, of course, is referenced by the POR.

7 So yes, I participated in the process of
8 working on the POR in conjunction with my
9 declaration.

10 Q. Okay. I'm going to go ahead and upload an
11 exhibit into the chat window. Let me know when you
12 have this.

13 A. Okay. I see a red bubble in chat. I see a
14 PDF that I'm going to download now, and I'm going to
15 save that, and I'm going to open that.

16 Okay. I have Exhibit 1001 opened in front
17 of me on the PDF reader.

18 Q. This is U.S. Patent Number 6,938,177; the
19 '177 patent by inventor Kenneth Blemel, correct?

20 A. That is correct.

21 Q. You're familiar with the concept of the
22 person of the ordinary skill in the art, also called
23 the POSITA, right?

24 A. Yes, I am.

25 Q. And do you understand the POSITA is

1 presumed to be aware of prior art and knowledge in
2 the art prior to the invention date?

3 A. Yes, I understand that.

4 Q. Okay. If you look about halfway down the
5 first page there of Exhibit 1001, do you see the
6 words "Filed December 19, 2001"?

7 A. I do see that.

8 Q. Is it fair to say the POSITA was aware of
9 prior art predating December 19, 2001?

10 A. Yes, I believe that's -- that's fair.

11 Q. Okay. Can we go to Column 2 in the '177
12 patent, Exhibit 1001? And to make sure we're looking
13 at the same thing, can you read the first three
14 sentences under the "Summary of Invention" from lines
15 34 to 44?

16 A. Okay. Those begin, "The present invention
17 is embodied in a stand-alone, compact low-power
18 electronics instrument controller which utilizes an
19 MCM design. However, an electronics instrument
20 controller designed in accordance with the present
21 invention has less complexity, includes enhanced
22 power management, and offers more functional
23 flexibility than prior art controllers. This is
24 because an electronics instrument controller designed
25 in accordance with the invention includes a

1 significant improvement in the functionality and
2 circuitry design over prior art MCM controllers, such
3 as the AIC in U.S. Patent Number 6,148,399."

4 Q. Great. And "AIC" stands for advanced
5 instrument controller; is that right?

6 A. That's my understanding.

7 Q. Okay. So looking at the patent, the POSITA
8 would be familiar with the design of prior art
9 multi-chip modules operating as instrument
10 controllers, correct?

11 A. Yes. I think that would be helpful.

12 Q. Okay. Can I point you to line -- let's
13 see, Column 1, line 14 under the "Field of
14 Invention."

15 Can you read the Field of Invention
16 paragraph as it's written to make sure we're looking
17 at the same thing?

18 A. Okay. "The present invention generally
19 relates to multi-hip" -- I think that's a typo --
20 "modules (MCM). More specifically, the present
21 invention relates to an MCM capable of running
22 multiple is processes and having nonvolatile
23 storages" -- "storage for numerous monitoring and
24 controlling applications."

25 Q. And to confirm, the invention in the '177

1 patent relates to multi-chip modules, not multi-hip
2 modules, correct?

3 A. Yes.

4 MR. COCHRAN: Outside the scope.

5 THE WITNESS: I'm sorry. There was some --
6 some audio that took place after your question. I
7 didn't understand if there was an objection or what
8 that was.

9 MR. COCHRAN: I objected outside the scope.

10 THE WITNESS: Okay.

11 BY MR. SHNEIDMAN:

12 Q. Can I point you to Column 1, line 61, and
13 can you read the passage of that last paragraph
14 starting at line 61? And the paragraph ends on the
15 first column -- sorry, the first word of Column 2.

16 A. "By tightly coupling the MCM more complex
17 interactions between the components within the design
18 are possible, thereby providing greater functional
19 capability than would have been possible using a
20 single integrated circuit. In other words, a tightly
21 coupled MCM is built like a hybrid microcircuit that
22 possesses a highly integrated behavior more
23 consistent with 'system-on-chip' on monolithic IC
24 designs."

25 Q. What's the difference between an MCM and a

1 system-on-chip?

2 A. So a system-on-chip is essentially a chip
3 that integrates multiple blocks together that
4 interoperate with each other. And a multi-chip
5 module is -- is a module that can put, for example,
6 multiple die together on a common substrate and
7 interconnect them.

8 Q. So there are multiple chips in a multi-chip
9 module; is that fair?

10 A. Yes. That's possible. Yes. That's right.

11 Q. And, presumably, if it was a single-chip
12 module, it wouldn't be a multi-chip module, agreed?

13 A. I think generally there would be -- there
14 would be more than one chip on a multi-chip module.
15 That's right.

16 Q. So looking at Column 3, lines 55 starting
17 with, "As such," can you read that to make sure we're
18 looking at the same text there?

19 A. Okay. "As such, the invention is similar
20 to a 'system-on-chip' and appears to be a chip in
21 size, weight, and physical configuration, but through
22 a tightly coupled MCM implementation transcends the
23 functional capability of a single-integrated
24 circuit."

25 Q. What does it mean when it says the MCM

1 transcends the functional capability of a
2 single-integrated circuit?

3 MR. COCHRAN: Objection. Form.

4 THE WITNESS: Well, I think the MCM opens
5 up some possibilities in the design and
6 implementation space that might not be singularly
7 addressed by a single chip.

8 For example, some of the chips placed onto
9 a multi-chip module might have dissimilar
10 manufacturing processes that are required and would
11 cause what you would want to implement on one chip as
12 being mutually exclusive with respect to, you know,
13 trying to put that on a single chip.

14 You get more silicon area potentially from
15 integrating multiple silicon die together on a
16 multi-chip module. You also have an opportunity for
17 a testing methodology that can be applied where it is
18 a divide and conquer. You build out good parts that
19 are known good and tested good until you arrive at
20 your fully assembled and tested MCM.

21 Q. So how is the MCM invention in this patent
22 different from a system-on-chip?

23 MR. COCHRAN: Objection. Form.

24 THE WITNESS: Well, I think the feasibility
25 of integrating everything together as a

1 system-on-chip in this era and time would have been
2 challenging. I already mentioned that you can put
3 multi die, and, therefore, obtain more useful area
4 overall on a multi-chip module. They're also tightly
5 coupled together, which is an advantage for timing
6 and -- and space considerations.

7 BY MR. SHNEIDMAN:

8 Q. Okay. Can we turn to Figure 1 of this
9 patent?

10 A. Can you give me just one second while I go
11 there?

12 Q. Oh, please.

13 A. Okay. I have Figure 1 in front of me
14 that's tilted at 90 degrees.

15 Q. Understood.

16 Figure 1 is an example of the multi-chip
17 module that's claimed in the '177 patent, right?

18 A. Unfortunately, this PDF is not searchable,
19 which is not helpful. But I'm going to confirm
20 the --

21 Q. I can help direct you to maybe Column 4,
22 line 20, 25.

23 A. Okay.

24 Yes, that's correct. This is within the --
25 the section of detailed description of the preferred

1 embodiments. That's correct.

2 Q. Okay. Now, you mentioned you were retained
3 after the POPR, right? Sorry. After the Patent
4 Owner Preliminary Response, correct?

5 A. Yes. I believe that's true.

6 Q. So did the patent owner provide you with an
7 understanding of the POSITA for use in this case?

8 A. I recall us discussing what we thought the
9 POSITA would be and a report -- recorded details
10 about that in my declaration.

11 Q. Okay. And that definition is what you used
12 in forming your opinions; is that true?

13 A. Yes, it is.

14 Q. I have a question about the patent owner's
15 POSITA, which is: The patent owner says that the
16 POSITA would have had a bachelor's degree in
17 electrical engineering or computer engineering or an
18 equivalent degree with at least four years of
19 experience in FPGA and processors system design.

20 Does that sound familiar?

21 A. It may. Is that in my report where I can
22 confirm it in a paragraph?

23 Q. I believe that would be found at
24 paragraph -- let's see here -- 22 on page 10 of your
25 report. And let me just go ahead and drop that into

1 the record as well so that we have that in the
2 record.

3 I'm uploading Exhibit 2020 now, which is a
4 copy of your report.

5 A. Give me one moment to download that.

6 Okay. I have that downloaded.

7 Q. Great. And so my question is: The patent
8 owner says in the -- that the POSITA would have had a
9 bachelor's degree in electrical engineering or
10 computer engineering or an equivalent degree with at
11 least four years of experience in FPGA and processors
12 systems design, and they give some sub examples.

13 You agree with that?

14 A. Yes. I agree with that.

15 Q. My question is: Let's say the PTAB agrees
16 and says that a person of ordinary skill has a
17 bachelor's degree in electrical engineering or
18 computer engineering or related field, but let's say
19 that the Board further finds that the POSITA needs to
20 have two years of experience related to the design
21 and development of multi-chip modules operating these
22 instrument controllers.

23 My question is: The outcome of this case
24 doesn't hinge on a difference in the definition of
25 the POSITA, right? Between those two.

1 A. I don't know what the Board's thought
2 process is. I can account for the definition of
3 POSITA that -- that is in my report.

4 Q. Okay. Would an electrical engineer or
5 computer engineer with two years of experience
6 related to the design and development of multi-chip
7 modules operating as instrument controllers be a fair
8 POSITA for this patent?

9 A. I haven't considered it. I would need to
10 consider it more.

11 But I think the multi-chip module
12 requirement specifically might be too restrictive.
13 One who studies computer engineering and practices in
14 things that I suggest in my definition of POSITA, I
15 think, would understand multi-chip modules and how
16 those relate to the technology they would have
17 encountered through their practical experience
18 through what I state is my definition of POSITA in my
19 report.

20 Q. So if I follow your answer, you're saying
21 you think your definition of a POSITA would have
22 understood the multi-chip modules operating as
23 instrument controllers in the '177 patent; is that
24 right?

25 A. Yes, I believe so.

1 Q. Okay. Let me go ahead and upload an
2 Exhibit 1004. Let me know when you have this.

3 A. Okay. I have that.

4 Q. And this is titled, "Development of a
5 DSP/MCM Subsystem Assessing Low-Volume, Low-Cost MCM
6 Prototyping For Universities," correct?

7 A. Yes. That's the title.

8 Q. And do you recognize Exhibit 1004, which is
9 being called the Dehkordi reference in this
10 proceeding named after the first author?

11 A. Yes, I do.

12 Q. What FPGA and processor is used in the
13 Dehkordi MCM?

14 A. The processor is Motorola, and there is a
15 model number that's given in here. And the FPGA is
16 made by Xilinx, and the model number is also, I
17 believe, stated in -- in this reference.

18 Q. Yeah. I believe "Design Flow" on the
19 right-hand side of the first page would help you
20 there.

21 A. Okay. I see that.

22 The Motorola -- the processor is a Motorola
23 model 96002, and the Xilinx FPGA is a model 4010.

24 Q. Okay. Do you agree that these were
25 commercially available off-the-shelf parts?

1 A. Yes, I believe they were.

2 Q. Okay. Let me upload an Exhibit 2019.

3 Please let me know when you have that.

4 A. I have that.

5 Q. Okay. In Exhibit 2019 is titled
6 "Enhancement of MCM Testability Using an Embedded
7 Reconfigurable FPGA," correct?

8 A. Yes. That's correct.

9 Q. And do you recognize Exhibit 2019, which
10 has been called D2 in this proceeding?

11 A. Yes, I do.

12 Q. And your name is at the bottom of the
13 exhibit.

14 Did you find this reference yourself, or
15 was it identified by counsel?

16 A. I believe I found this myself.

17 Q. How did you find it?

18 A. Well, I Googled the -- the original work of
19 Dehkordi 1, the previous exhibit, and the authors'
20 names, and I turned up this publication that seemed
21 like it might be related. And I believe I -- I
22 downloaded it from an IEEE website.

23 Q. Now, D2 and Dehkordi have different lead
24 authors, correct?

25 A. What do you mean by "lead author"?

1 Q. The first name listed.

2 A. Well, I'll agree that John York's name,
3 which is in D2, appears first in front of three
4 additional authors where those three additional
5 authors are in common with D1. And those authors are
6 Tim Powell, Payam Dehkordi and Don Bouldin. I don't
7 know John York's role as far as a primary author or
8 not. His name does appear first in the list of
9 authors.

10 Q. And you describe this as a highly relevant
11 reference for the proceeding. This is dated, though,
12 1997, correct? And Dehkordi came out in 1996?

13 A. I believe that D2 did come out about a year
14 after D1. That's correct.

15 Q. So why, in your view, is it fair game to
16 use D2 to evaluate what was known to the POSITA about
17 Dehkordi?

18 A. Well, this is a follow-up paper where
19 there -- they're considering the same MCM. They're
20 at a point in time about a year later where they've
21 proceeded through a number of additional steps, and
22 this clarifies what was done in their initial
23 publication, D1. And there's more detail about their
24 testing methodologies and how the system is -- is
25 intended to operate.

1 Q. You'd agree it's a different reference,
2 though?

3 A. It's a distinct paper. It was published a
4 year later. It's considering the same multi-chip
5 module that was discussed in -- and this is
6 accounting for the progress they've made and the
7 discoveries they've made in an academic paper that
8 was published a year later. It's the same system
9 that it's being considered in both -- both papers.

10 Q. So you believe the D2 reflects common
11 background knowledge as to how you'd interpret
12 Dehkordi?

13 A. I think D2 provides more detail in order
14 for one to understand D1, and certainly those are
15 some of the things that I pointed out in my -- in my
16 declaration.

17 Q. Despite the fact that the authorship is
18 different, you think that D2 is relevant to Dehkordi;
19 is that true?

20 A. Well, I -- I disagree with the
21 characterization that the authorship is different.
22 We have three authors in common.

23 The publication, yeah, considers the same
24 multi-chip module. It's from the same University of
25 Tennessee laboratory who's working on this, and

1 they've advanced their work in -- in D2 over what
2 they had accomplished a year prior in D1.

3 Q. So based on what we were saying earlier
4 about prior art known to the POSITA, your view is
5 that D2 would have been known to the POSITA; is that
6 correct?

7 A. Yes. I believe we've accounted for the
8 dates of D1 and D2 as being 1996 and 1997
9 respectively.

10 Q. So do you think that D2 would have been
11 background knowledge for a POSITA in reading D -- in
12 reading Dehkordi?

13 MR. COCHRAN: Object to the form. Asked
14 and answered.

15 THE WITNESS: I believe I've answered your
16 question.

17 I think a POSITA would have understood D1
18 and D2 and -- and how those systems operate, and I've
19 discussed that in my declaration.

20 BY MR. SHNEIDMAN:

21 Q. All right. Let me upload an Exhibit 1036.

22 A. Okay. I've downloaded that now.

23 Q. And this is the Kostarnov reference in the
24 IPR, correct?

25 A. Yes, it is.

1 Q. And 1036 also would have been known to the
2 POSITA prior to the '177 patent, right?

3 A. I want to confirm the dates on Kostarnov.

4 Q. Well -- go ahead. I think page 5 of your
5 declaration, paragraph 5 at the bottom would help.

6 A. I see this publication is from 1997. I
7 don't believe it was used as basis for grounds, if I
8 recall correctly, and I believe I discussed that in
9 my declaration.

10 Q. I believe that's correct.

11 So it would just be background knowledge
12 for the POSITA, right?

13 A. Yes, I believe that's correct.

14 Q. Okay. Let me upload Exhibit 1025.

15 A. Okay. I have that in front of me.

16 Q. This is the Halverson patent, correct?

17 A. Yes, it is.

18 Q. And Halverson also predates the 2001
19 invention date of the '177 patent, right?

20 A. Yes, it does.

21 Q. Okay. Let me go ahead and upload
22 Exhibit 1003. Please confirm when you have that
23 exhibit.

24 A. Okay. That was a little slow to download,
25 but I have it open now.

1 Q. This is the Lyke patent, 6,148,399.

2 A. Yes, it is.

3 Q. Okay. If you can look at Column 5, lines
4 49 to 53. Can you just read that out loud so I'm
5 sure we're looking at the same thing?

6 A. Okay. Column 5, lines 49 to 53, I think
7 begin, "A resistor ASIC is used in the AIC design to
8 eliminate over 50 individual resistors. Its primary
9 function is to provide support for the analog ASIC.
10 Embedded passive elements with the interconnection
11 system can also be used to further reduce floor plan
12 congestion within the MCM."

13 Q. Was Lyke's resistor ASIC capable of running
14 a process?

15 MR. COCHRAN: Objection. Form.

16 THE WITNESS: I don't believe I've opined
17 on that in my report. If you can direct me to a
18 particular paragraph, I can better answer your
19 question more accurately.

20 BY MR. SHNEIDMAN:

21 Q. Let's turn to page 29 of your report,
22 paragraph 63.

23 A. Okay.

24 Q. And it's the last three lines there.

25 The "For example, the '399 patent explains that the

1 resistive ASIC is merely a set of dumb resistors such
2 as a custom resistor IC that are passive circuit
3 elements and whose only purpose is to conserve
4 space."

5 And my question, then, is: Was that
6 resistor ASIC capable of running a process?

7 MR. COCHRAN: Same objection.

8 THE WITNESS: I don't think I've considered
9 that, and that's not something I'll opine on within
10 this paragraph.

11 BY MR. SHNEIDMAN:

12 Q. Well, so then my question is: Where you
13 say, "It's merely a set of dumb resistors," are you
14 saying it's incapable or capable of running a
15 process?

16 A. I'm simply accounting for what I understand
17 to be in that -- in that -- in that device, which are
18 resistors. I haven't opined on the relationship to
19 process.

20 Q. Do you have a view as to whether or not
21 that set of resistors can or cannot run a process?

22 A. I haven't considered it. I haven't opined
23 in my report on it. I'm not prepared to answer that
24 question.

25 Q. Okay. Can I have you look again at

1 Exhibit 1001, the '177 patent?

2 A. Okay.

3 Q. And if you could turn to Column 10, and, in
4 particular, Claim 5, and just reacquaint yourself
5 with that claim.

6 A. You said Claim 5?

7 Q. Yes, please.

8 A. Okay.

9 Q. So switching gears, do you know if the term
10 "power converter" that appears in Claim 5 has ever
11 been construed by a court before?

12 A. So from memory, I think it may have, and I
13 cite to a couple of exhibits in my report where that
14 may be recorded.

15 Q. Okay. Let me upload a new exhibit.

16 Exhibit 1054, which is U.S. Patent 5,317,696.

17 Let me know when you have that open.

18 A. I have that up.

19 Q. I'll represent to you that this exhibit has
20 not been previously introduced into the record.

21 Is it correct that you've never seen this
22 patent before?

23 Mr. Peck, I see you thumbing through what I
24 assume is your report. I'll represent it's not in
25 your report, but I'm -- I'm wondering if you've seen

1 the patent before.

2 A. I believe I have seen this patent before,
3 and I encountered it when looking for some citations
4 for -- for bus arbitration schemes, which I believe I
5 include in my technology background section of my
6 report.

7 Q. And you agree this patent doesn't mention
8 FPGAs, correct?

9 A. You know, I would like to search the corpus
10 of the document. It's not in a searchable format. I
11 could read it and try to find if there's citations to
12 field programmable gate arrays or FPGAs. I think
13 it's primarily concerned with bus arbitration
14 schemes.

15 Q. Okay. Do you know anything about the
16 inventor, Rolf B. Hilgendorf?

17 A. I see he's cited as an inventor. I don't
18 know much about him. I don't know anything about him
19 other than his appearance -- that his name's
20 appearing on this patent.

21 Q. Okay. Do you know anything about a person
22 named Federico Faggin?

23 A. Yes. I believe he was -- he engineered the
24 Intel 4004 microprocessor. I remember seeing a video
25 on the Computer History Museum of a presentation of

1 the 35th anniversary of the creation of that
2 processor at one point.

3 Q. Okay. Let me go ahead and upload an
4 exhibit, then. Exhibit 1055.

5 A. Okay. I have that downloaded.

6 Q. You see it's a picture of the Intel 4004
7 chip?

8 A. I see a package -- a chip package that has
9 writing on the top that says "B4004." I don't
10 believe I've actually handled an actual 4004
11 processor, so I don't know if this is it, but I can
12 say that the writing on the top says "B4004."

13 Q. Fair.

14 Is the device pictured here an example of
15 the type of chip that would go into the multi-chip
16 module contemplated in the '177 patent?

17 MR. COCHRAN: Objection to the form.
18 Outside the scope.

19 THE WITNESS: Well, I haven't considered
20 it. Multi-chip modules are built on the basis of die
21 and substrates. This is a fully packaged chip that
22 would be packaging, presumably, a die.

23 BY MR. SHNEIDMAN:

24 Q. You would agree that this, though, would be
25 commonly referred to as a chip?

1 A. Well, there's -- the word "chip" I think is
2 something that we'd have to discuss to get a common
3 understanding. What I see here is a package that
4 contains within it a die, as I understand it. And
5 when we talk about "chip," we need to be specific as
6 to if we're talking about packaged dies, the die
7 themselves, or something else.

8 Q. But, you know, as a computer engineer, if
9 you saw this and someone said, "Hey, pass me that
10 chip," you would understand they were talking about
11 this device, a chip?

12 A. Well, in the context that you're providing,
13 if two engineers were at a lab bench and there was
14 this -- this device on the lab bench and someone
15 said, "Pass me that chip," then, yes, I think that
16 that interaction would be understood.

17 But as I said, there's more specificity
18 that one would need to account for in a given context
19 in order to understand what's meant by the
20 word "chip."

21 Q. I saw in your declaration you wrote your
22 clients included Advanced Micro Devices.

23 Is Advanced Micro Devices a current client?

24 A. No, they are not.

25 Q. Okay. Is the work that you've done for

1 Advanced Micro Devices related all to the subject
2 matter of the '177 patent?

3 A. Yes, I believe it is.

4 Q. How's that?

5 A. Well, my work at AMD was actually done in
6 the period 1997 to 1999. I was an engineer working
7 in the chip set group, which was creating a
8 system-on-chip to support operation of the processor.
9 And this is a type of chip called "northbridge" that
10 goes onto a motherboard. The types of engineering
11 issues you encounter in building such a system are
12 very relevant and pertinent to '177.

13 Q. I also saw Xilinx listed as a client.

14 Is Xilinx a current client?

15 A. No, they are not.

16 Q. How did you go about writing your report?

17 A. Well, I started on the case by receiving
18 some materials from counsel, including the petition,
19 the decision, the POPR, the patents and added on to
20 that the references that were relevant. I did
21 investigation of finding additional information to
22 clarify some of the prior art.

23 And, you know, I worked with counsel to
24 prepare my declaration. I got some administrative
25 help from counsel. I got some stylistic edit

1 suggestions from counsel.

2 But the opinions in my declaration are
3 mine, and I stand behind them.

4 Q. Did you copy in portions of Wikipedia into
5 your report?

6 A. I don't recall that specifically, but if
7 there's a particular paragraph you have a question
8 about, I could try to answer your question more
9 accurately.

10 Q. Well, would you know one way or the other
11 whether portions of your report are copied from
12 Wikipedia sitting here today?

13 A. Again, to answer your question accurately,
14 if you could direct me to a particular paragraph, I
15 could check the references and communicate to you
16 what I recall about where that material may have come
17 from.

18 Q. Well, it's really just asking about the
19 process of writing it.

20 Do you know one way or the other, sitting
21 here right now, if portions are copied in from
22 Wikipedia?

23 A. Again, to answer your question accurately,
24 if you could direct me to a particular paragraph in
25 my report, I can try to answer the question in that

1 context.

2 Q. Fair, but I'm asking in the context of
3 creating the entire report.

4 Is it fair to say right now, you don't know
5 whether or not portions were copied in from
6 Wikipedia?

7 MR. COCHRAN: It's been answered.

8 THE WITNESS: I've attempted to answer the
9 question a couple times already.

10 Again, if you direct me to a particular
11 paragraph, I could try to account for the contents
12 there, what origin or citations might -- might be
13 behind it.

14 BY MR. SHNEIDMAN:

15 Q. And so at the moment, you can't say? You
16 don't know?

17 MR. COCHRAN: Asked and answered.

18 THE WITNESS: Again, I've attempted to
19 answer your question three or four times now. I'll
20 direct you to my prior responses.

21 BY MR. SHNEIDMAN:

22 Q. Do you know if other references were copied
23 into your declaration? Other -- other sources of
24 information that didn't originate from you?

25 MR. COCHRAN: Objection. Form.

1 THE WITNESS: Well, my report makes
2 extensive citations to information sources. I
3 understand that's important to the Board, that there
4 be citations just beyond opinion of -- of where these
5 things were learned that are incorporated into the
6 report.

7 So yes, I do cite to lots of material that
8 I don't personally author.

9 BY MR. SHNEIDMAN:

10 Q. Did you copy in portions of your report
11 from the patent owner response?

12 A. Again, I described the process that I went
13 through in preparing my report. I worked with
14 counsel. I was given a set of materials that
15 included the things I mentioned earlier; the POR --
16 the POPR, rather, the petition, the declarations from
17 petitioner, the decision, background materials. I
18 worked with counsel, and counsel provided me with
19 stylistic edit suggestions, gave me some
20 administrative help in preparing the report.

21 But the opinions in the report are mine,
22 and I stand behind them.

23 Q. All right. All right.

24 MR. SHNEIDMAN: Mr. Peck, thank you for
25 your time today.

1 THE WITNESS: Okay. Thank you.

2 THE STENOGRAPHER: Counsel, would anyone
3 like a transcript?

4 MR. SHNEIDMAN: Yeah. I believe we put in
5 an order. Yeah.

6 THE STENOGRAPHER: Mr. Cochran, did you
7 need a transcript?

8 MR. COCHRAN: Yes. Normal turnaround time
9 would be fine. Thank you.

10 (Proceedings concluded at 10:28 a.m.)

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DEPONENT'S SIGNATURE

Please be advised I have read the foregoing deposition, pages 1 through 38 inclusive. I hereby state there are:

(Check one)

_____ No corrections

_____ Corrections per attached

JOHN CHARLES PECK, JR.

() Reading and signing was requested.
() Reading and signing was waived.
(X) Reading and signing was not requested.

Should the signature of the witness not be affixed to the deposition, the witness shall not have availed himself of the opportunity to sign or the signature has been waived.

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ERRATA SHEET

NAME OF CASE: XILINX v. SENTIENT SENSORS, LLC

DATE OF DEPOSITION: MARCH 6, 2024

NAME OF WITNESS: JOHN CHARLES PECK, JR.

Reason Codes:

1: To clarify the record.

2: To conform to the facts.

3: To correct transcription error.

Page	_____	Line	_____	Reason	_____
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JOHN CHARLES PECK, JR.

DATED

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DECLARATION UNDER PENALTY OF PERJURY

I am the witness in the foregoing deposition.
I have read the foregoing deposition or have had read
to me the foregoing deposition, and having made such
changes and corrections as I desired, I certify that
the same is true in my own knowledge.

I hereby declare under penalty of perjury under
the laws of the State of California that the
foregoing is true and correct.

This Declaration is executed this _____ day of
_____, 20____, at _____.

JOHN CHARLES PECK, JR.

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I, Kaitlyn B. Houston, a Certified Shorthand Reporter in and for the State of California, do hereby certify that prior to being examined, the witness named in the foregoing deposition, JOHN CHARLES PECK, JR., was by me duly sworn to testify the truth, the whole truth, and nothing but the truth;

That said deposition was taken before me at the time and place set forth and was taken down by me in shorthand and thereafter reduced to computerized transcription under my direction and supervision; and I hereby certify the foregoing deposition is a full, true and correct transcript of my shorthand notes so taken.

I further certify that I am neither counsel
for nor related to any party to said action nor in
any way interested in the outcome thereof.

Dated March 15, 2024.

Kaitlyn B. Houston
Certified Shorthand Reporter No. 14170

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