

1 IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD

3 _____
4 MARVELL SEMICONDUCTOR, INC.,)

5 Petitioner,)

6 vs.)

7 CREDO TECHNOLOGY GROUP, LTD.,)

8 Patent Owner.)
9 _____

CASE NO. :
IPR2025-01220

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17 REMOTE STENOGRAPHIC DEPOSITION OF
18 DR. MICHAEL CHEN
19 May 8, 2026

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24 Reported by: BRIDGET LOMBARDOZZI, CSR, RMR, CRR
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Remote Stenographic deposition of DR. MICHAEL
CHEN, taken remotely on behalf of Plaintiff, commencing at
9:11 a.m., Pacific Time, on Friday, May 8, 2026, before
Bridget Lombardozzi, Certified Shorthand Reporter,
Registered Merit Reporter, Certified Realtime Reporter,
and a Notary Public of the States of New Jersey and New
York, pursuant to notice.

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P R O C E E D I N G S

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9:116 A.M. PT

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May 8, 2026

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THE REPORTER: Good morning.

7

My name is Bridget Lombardozzi. I am a

8

Certified Shorthand Reporter and a Notary

9

Public in the states of New Jersey and

10

New York. I also hold a nationally

11

recognized certification of Registered

12

Professional Court Reporter in the United

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States with NCRA. I am the deposition

14

officer for today's deposition.

15

Before we proceed, I will ask

16

counsel to stipulate on the record that

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this deposition officer may swear in the

18

deponent even though I am not in the

19

physical presence of the deponent, and that

20

there is no objection to that at this time,

21

nor will there be an objection to it at a

22

future date.

23

Let's start with the noticing

24

attorney.

25

MR. TIPESCU: No objection from

1 us.

2 MR. QIU: And no objection —
3 no objection. Thank you.

4 DR. M I C H A E L C H E N,
5 having been duly sworn, was examined and
6 testified as follows:

7 THE REPORTER: Thank you.

8 You may proceed.

9 DIRECT-EXAMINATION

10 BY MR. TIPESCU:

11 Q. Good morning, Dr. Chen. Mircea Tipescu
12 here from the Benesch law firm for patent owner,
13 Credo.

14 A. Good morning.

15 Q. Good morning. Thank you for being here
16 today.

17 Could you just let us know your full name
18 for the record, please, before we get started?

19 A. Sure. I'm Michael Chen.

20 Q. Okay. And, Dr. Chen, you understand
21 that you're under oath for your deposition today,
22 correct?

23 A. I understand that, correct.

24 Q. Okay. Is there any reason why you can't
25 provide truthful and complete testimony here

1 today?

2 A. No.

3 Q. And you understand that you're here
4 today to provide testimony in connection with an
5 inter partes review proceeding. Is that correct?

6 A. I understand that.

7 Q. Okay. And is that for U.S. Patent
8 Number 11,032,111? Correct?

9 A. Counsel, that is for 11,032,111. That
10 is correct.

11 Q. Okay. And if I refer to this patent as
12 the '111 patent, will you understand what I'm
13 referring to?

14 A. Counsel, I can understand that.

15 Q. Okay. Dr. Chen, where are you
16 physically located right now?

17 A. I'm physically located downtown Los
18 Angeles and that's at an office from Sheppard.

19 Q. Okay. Is there anyone else in the room
20 with you today?

21 A. No, I'm actually alone in the conference
22 room physically.

23 Q. Okay. If someone tries to communicate
24 with you during your deposition today, will you
25 tell me?

1 A. I will.

2 Q. Okay. And did you bring any materials
3 with you to the deposition today?

4 A. Here, I have two binders. I think they
5 print out. And, of course, I have this virtual
6 conference set up. You know, monitor, keyboard,
7 mouse, laptop here with me, yeah.

8 Q. Okay. And you said you have two
9 binders, correct?

10 A. Yes, I do.

11 Q. Okay. Let's start with one of those
12 binders. I assume one of them contains your
13 declaration, correct?

14 A. Counsel, that is correct.

15 Q. Okay. And that is the declaration they
16 submitted in the proceeding, in the inter partes
17 review proceeding regarding the '111 patent,
18 correct?

19 A. Counsel, that is correct.

20 Q. Okay. Can you take a look at that
21 binder with your declaration and let me know
22 what else besides your declaration is in that
23 binder?

24 A. Sure. So in this binder, this is called
25 Binder Number 1, the first document is Exhibit

1 1003, and that is the declaration report, you
2 know, of this petition.

3 Number 2 is actually the petition,
4 IPR2025-01220.

5 Number 3 is the Exhibit 1001. This is
6 patent — let's just call it '111 patent.

7 Number 4 is Exhibit 1004. This is the
8 Berke reference.

9 Number 5 is Exhibit 1005. This is
10 Cornelius reference.

11 Number 6 is Exhibit 1006. This is Ran
12 reference.

13 Number 7 is Exhibit 1007. This is Ran
14 provisional.

15 Number 8 is Exhibit 1008. This is
16 excerpts from Stauffer high-speed SerDes devices
17 and applications.

18 Number 9 — this is the last one — this
19 is Exhibit 1009. This is Mejia reference.

20 And that will be all.

21 Q. Thank you, Dr. Chen.

22 And do any of those exhibits including
23 your declaration in that binder contain any
24 markings or notes?

25 A. No, Counsel, all these are from hard

1 copies.

2 Q. All right. So let's turn then to the
3 second binder you have. Can you please tell me
4 what is included in the second binder?

5 A. Sure. The second binder, the first
6 document is Exhibit 1021. This is '111 patent
7 provisional.

8 Number 2, which is the last one, is
9 Exhibit 1030. This is the Laud reference.

10 And that will be all.

11 Q. And do any of those exhibits in the
12 second binder include any markings or notes?

13 A. No, Counsel. It's, again, all clean
14 copies.

15 Q. Okay. All right. So we'll be referring
16 to these exhibits, at least some of them, in the
17 deposition here today. Feel free to refer to the
18 copies in your binder if you would like. I will
19 also add these exhibits as I ask you questions
20 about them to the chat window on Zoom so we can
21 refer to them electronically if that's helpful.
22 But feel free to refer to either version, the
23 electronic or the hard copy version that you have
24 with you.

25 Is that okay?

1 A. Yeah, that's great. Thank you.

2 Q. So with that said, let me -- let me add
3 into the chat window Exhibit 1003. This may take
4 a little while to upload. It's somewhat larger,
5 but hopefully it will come across shortly. Let me
6 know when -- when you see the document that I've
7 uploaded on your end.

8 A. Counsel, I see that now in the chat
9 window.

10 Q. Okay.

11 A. Is that okay I download to my desktop?

12 Q. Yes. So please go ahead and download it
13 to your desktop and open it. And let me know if
14 this Exhibit 1003 is a copy of the declaration
15 that you submitted in the IPR proceeding for the
16 '111 patent.

17 A. Sure.

18 (Pause)

19 A. Counsel, yeah, I downloaded this. I
20 take a look. Yes, it appears to be the
21 declaration report that I submitted.

22 Q. Okay. Please turn your attention to the
23 CV that is attached at the end of your
24 declaration. I believe it is -- bear with me --
25 Appendix 1.

1 A. Yes, Counsel, I see that Appendix 1,
2 which is my CV.

3 Q. Okay. And is this still a complete and
4 accurate copy of your CV?

5 A. Counsel, yeah, I think this seems to be
6 the CV I submitted during the petition process.
7 And, of course, right now there will be more
8 updated ones, yeah.

9 Q. Is there anything that you consider
10 relevant to this proceeding that you would like
11 to -- that is not on your CV that you would like
12 to mention now?

13 A. Not really. I think it should be all
14 covered. You know, my background. You can see
15 my history. Yep. I think that should be fine,
16 yeah.

17 Q. And, Dr. Chen, just to be clear, looking
18 at your CV, I assume that you are not an attorney,
19 correct?

20 A. Counsel, that is correct. I'm not an
21 attorney.

22 Q. Okay. And you are not a patent agent
23 either, correct?

24 A. That is correct. I'm not a patent
25 agent.

1 Q. Okay. Do you have any experience
2 dealing with the U.S. Patent and Trademark Office
3 in the context of securing patent rights?

4 A. So, Counsel, I'm a university professor.
5 So what we do is that, you know we do research.
6 We from time to time also have some ideas that's
7 patentable, we deem patentable. So what we do is
8 that we work with the legal office at the
9 university and they basically help the researcher
10 like myself, you know, to deal with the patent
11 matters and including application. But I do not
12 personally interact with the patent office, you
13 know, personally. I just work with our
14 university's patent office.

15 Q. Okay. So in every instance where you
16 would have had dealings with the U.S. Patent and
17 Trademark Office, you would have been working
18 through legal counsel at the university. Is that
19 correct?

20 A. That -- I think that that is correct,
21 yeah. So the legal office, they have what I
22 consider is more professionals, so they would
23 deal with all the legal matters. That is
24 correct.

25 Q. Are you familiar with any of the

1 statutory or USPTO requirements for filing a
2 patent application?

3 A. Can you repeat this term? You said
4 U.S. — you mean the patent office?

5 Q. Yes, the patent office. Yes.

6 A. Okay. Yeah, Counsel, I think I mainly
7 work with our professionals in the university
8 entity. You know, I don't personally get engaged
9 in all the details, you know. You asked me
10 whether I'm familiar with all the rules and all
11 that, right? So that usually I work with the
12 university and they let me know what aspect I
13 should pay attention to, things of that nature.
14 To that extent, you know, that's how I had a
15 little bit experience, you know, maybe related to
16 what, Counsel, you're asking.

17 Q. Would you consider yourself to have any
18 expertise with any of the statutory or patent
19 office requirements for filing a patent
20 application?

21 A. Counsel, certainly I'm not an attorney,
22 so I won't be, let's say, as experienced as you
23 guys. So I wouldn't say that, you know, I
24 understand all, 100 percent every single rule, you
25 know, with that. Yeah, but like I said, I — you

1 know, typically the legal team that I work with at
2 the university, they will let me know, you know,
3 what I should pay attention to and discuss. You
4 know, things of that nature.

5 Q. So the answer is, no, you do not
6 consider yourself to have expertise with the
7 requirements for filing a patent application,
8 correct?

9 A. I do not have 100 percent, you know,
10 visibility with everything, every rule and all
11 that, for sure.

12 Q. So the answer is, no, you don't
13 consider yourself to have expertise with the
14 requirements for filing a patent application,
15 correct?

16 A. Counsel that depends how you define
17 "expertise," right? So as I say, you know, I do
18 not have 100 percent visibility with every single
19 rule, you know, for that.

20 Q. So you're familiar with some of the
21 rules but not all of them? Is that what you're
22 saying?

23 A. Counsel, I think that that sounds right.
24 So essentially what the -- the legal team, they
25 work with me and they would bring -- usually they

1 did a fairly good job, I would say, you know, to
2 bring to my attention these are the rules, or, Dr.
3 Chen, you should pay attention to this and things
4 of that nature, yeah.

5 Q. And you have not received any formal
6 training regarding the statutory or patent office
7 requirements for filing a patent application,
8 correct?

9 A. Counsel, I think that it's -- that is
10 correct. I do not -- I did not receive formal
11 training, like law school training or any
12 professional training. I did not.

13 Q. And would you consider yourself to have
14 any expertise with statutory or patent office
15 requirements for the prosecution of a patent
16 application once it's been filed?

17 A. Counsel, I think that would be similar
18 to what I've commented on previous questioning.
19 You know, you said 100 percent rule. Do I
20 understand everything, 100 percent coverage? You
21 know, I did not have formal training of that.
22 But, again, you know, whenever I work with the
23 legal team, you know, they generally did a very
24 good job, you know, of showing me the tools. I'm
25 just trying to understand the rules and things

1 like that, right, when that is relevant. So in
2 that context, you know, that's how I, you know,
3 sort of work in this general topic. Sorry, not
4 general. The specific topic that, Counsel, you
5 just mentioned.

6 Q. So, again, you may have familiarity with
7 some of the statutory and patent office
8 requirements for prosecution of a patent
9 application, but you don't consider yourself to
10 have -- to know all of the rules, correct?

11 A. Counsel, I think that's what I mentioned
12 earlier, you know. I do not 100 percent
13 understand all -- or, actually, I shouldn't say
14 understand. 100 percent, you know, go every
15 single rules and things like that, but I do look
16 at the relevant ones, you know, when that matters,
17 you know, to whatever case. That -- so let's say,
18 if I'm filing a patent, things like that, you
19 know. Everything that's relevant, you know, legal
20 team, generally they do a good job of bringing up
21 those relevant rules and issues and things of that
22 nature.

23 Q. Okay. I think you might have already
24 answered this, but I'll ask you just to be sure.
25 You haven't had any formal training in how to

1 interpret any statutory or patent office rules
2 regarding the prosecution of a patent application
3 once it's been filed, correct?

4 A. I'm sorry, I thought that indeed -- I
5 think we just -- I think we just discussed this a
6 few minutes ago. And I did not receive formal
7 class training or professional in this, you know,
8 legal, you know, matters, right? So, yes, I think
9 I did not have formal training or class or things
10 of that nature, right. But, you know, what I did
11 have is the -- you know, Counsel, as I explained
12 before, you know, whenever there's a case, it
13 could be my own patent applications and the legal
14 team did a good job, you know, of bringing up
15 those relevant rules.

16 Q. So let me ask you to turn, Dr. Chen, to
17 the section of your declaration, Exhibit 1003,
18 regarding the prosecution history of the '111
19 patent, and that's beginning at paragraph 19.

20 Can you let me know when you turn to that
21 section?

22 A. Counsel, I'm at paragraph 19 of my
23 declaration report.

24 Q. All right. And so this Section II.A,
25 called "Prosecution History," it spans paragraphs

1 19 through 21.

2 Do you see that?

3 A. Counsel, I do see this, from paragraph
4 19 to 21 belongs to that section, prosecution
5 history, that is correct.

6 Q. And what is -- what is your
7 understanding of what this section of your
8 declaration is describing?

9 A. Counsel, as I provided here, you know,
10 starting from paragraph 19, "The application for
11 the '111 patent was allowed after two office
12 actions. In the non-final office action dated
13 2020 July 9th, the examiner rejected original
14 Claims 1, 6 through 10, 17 to 19 as being obvious
15 under 103 in view of prior art references
16 including" so it has all that numbers, Kolze
17 reference. And there's another one is
18 Thirumoorthy reference, and there's another one
19 called Binder reference.

20 "The examiner relied on Kolze for
21 selecting pre-equalizer settings and updating
22 pre-equalizer coefficient values, Thirumoorthy for
23 storing pre-equalizer coefficients in registers,
24 and Binder for suggesting a port connector coupling
25 a port transceiver to a pluggable module

1 transceiver. The examiner indicated that Claims 2
2 through 5, " 16 to — I'm sorry, "11 to 16, and 20
3 recited allowable subject matter. "

4 "In response, the applicant did not
5 dispute the examiner's rejection under 103 but
6 sought to overcome the office action by
7 incorporating allowable subject matter into the
8 rejected claims. The applicant amended
9 independent Claim 1 to incorporate limitations of
10 original Claim 5 and recite 'determining a
11 performance characteristic for initial
12 pre-equalizer coefficient values in each of
13 multiple registers.' The applicant amended Claim 2
14 into independent form and amended independent
15 Claims 9 and 19 to purportedly incorporate the
16 limitations of Claims 14 and 20, respectively.
17 Original Claims 2, 14, and 20 each recited that
18 'each of the multiple registers corresponds to a
19 different channel model.' In addition, the
20 applicant amended Claim 11, which originally
21 recited 'wherein the port transceiver iteratively
22 selects different ones of the multiple registers
23 and determines a performance characteristic for
24 each,' into independent form. In the final office
25 action dated February 4th, 2021, the examiner

1 rejected Claims 1 and 6 to 8 as obvious in view of
2 the combination of Kolze and Thirumoorthy. Again,
3 the applicant did not dispute the examiner's
4 rejection. Instead, the applicant canceled Claim
5 1 and amended Claims 6 to 8 to depend from allowed
6 independent Claim 2. Allowed independent Claims
7 2, 9, 11, and 19 were issued as Claims 1, 8, 11,
8 and 16, respectively. I understand that the
9 examiner did not compare the claims identified to
10 recite allowable subject matter with any prior art
11 reference in either office action. Nor did the
12 examiner or the applicant explain why these claims
13 were nonobvious in view of the prior art."

14 Lastly, "None of the references used in
15 the invalidity grounds discussed in my report were
16 considered during examination. These references
17 are not listed on the face of the patent, nor
18 have I seen them addressed in the prosecution
19 history."

20 So, Counsel, I think that's what I
21 have -- understand and that's what I provide in my
22 report.

23 Q. So, Dr. Chen, I believe you just read
24 the three paragraphs that I mentioned verbatim, if
25 not close to verbatim. And so I want to make sure

1 that apart from the words that appear on the pages
2 17 and 18 in paragraphs 19 through 21 of your
3 declaration, you have no other understanding of
4 the prosecution history of the '111 patent. Is
5 that correct?

6 A. Counsel, what I offer here is according
7 to my understanding at the time I was drafting my
8 report, sometime last year, and that's what I have
9 written here. And that's, indeed, my
10 understanding related to '111.

11 Q. Perfect.

12 So let me ask you on the off chance that
13 you might have something more to offer than what's
14 written on these pages about a statement -- well,
15 before I do that, let me just ask you, did you
16 review the documents from the prosecution history of
17 the '111 patent yourself?

18 A. Counsel, at the time that I was
19 drafting, you know, I review all the documents,
20 you know, especially, you know, that's relevant to
21 my report, you know, and that's why you see a lot
22 of exhibits over there. It is a lot of documents
23 that I went through last year for the report and
24 then this is, again, my understanding, you know,
25 after reviewing those documents.

1 Q. And so the opinions regarding the
2 prosecution history of the '111 patent contained
3 in this section of your report are your own
4 opinions, correct?

5 A. Counsel, that was my understanding after
6 reviewing this. And I see that aspect, you know,
7 and also the technical just like the reason why I
8 work with my legal team at university, right? So
9 those are a type of discussion that we kind of
10 went through, right? So -- and then I formed
11 opinions and that's what I provide in the report.

12 Q. Okay. Let me take you to paragraph 20
13 of your declaration. It's a long paragraph. It
14 starts on page 17 and continues on page 18. So
15 let me take you to page 18.

16 Do you see where, let's see, one, two,
17 three, four, five, six -- six lines down there's a
18 sentence that begins "In the final office action
19 dated February 4th, 2021..."

20 Do you see that?

21 A. I see that, Counsel. February 4th,
22 2021.

23 Q. "In the final office action, the
24 examiner rejected Claims 1 and 6 to 8 as obvious
25 in view of the combination of Kolze and

1 Thirumoorthy," correct?

2 A. I see that sentence, Counsel.

3 Q. That's your understanding of what
4 happened -- that's your understanding of what
5 happened in that office action, correct?

6 A. Counsel, that is a summary, you know, of
7 that under -- of that interpretation of that --
8 from that action on that February 4th, 2021.

9 Q. But it's your summary, it's your
10 understanding, correct?

11 A. Counsel, that was the understanding, you
12 know, at that time, yes. So -- and, hence, you
13 know, that's the statement that I provide here.

14 Q. I want to make sure because words are
15 important. You said that was "the" understanding.
16 I'm asking if that was your summary and your
17 understanding, correct?

18 A. Counsel, I thought I answered that
19 question already. So after reviewing the document
20 and that is the statement that to describe, you
21 know, recounting that February 4th, 2021, office
22 action.

23 Q. I just want to make sure that it wasn't
24 somebody else's understanding, right? Because you
25 said that was "the" understanding at the time.

1 That could refer to you or it could refer to your
2 attorneys. It could refer to someone else. So I
3 don't want to just know if that was "the"
4 understanding. I want to make sure that was your
5 understanding and your summary of that office
6 action from February 4th, 2021, as indicated here
7 in your report, in your declaration, correct?

8 A. Counsel, I thought that's -- I did
9 mention that's the understanding that -- you know,
10 of that office action taken on February 4th, 2021.
11 I thought the answer was already clear.

12 Q. But you haven't said yes or no and you
13 keep going to "the" understanding and I'm pointing
14 out what the problem is with your answer when you
15 say "the" understanding. It's not responsive to
16 my question.

17 My question is if that was your
18 understanding of what happened in that office
19 action. Yes or no?

20 A. So, Counsel, you know, if I provide this
21 in my report, it means that I agree with that
22 understanding that -- from the office action dated
23 from February 4th, 2021.

24 Q. Perfect. All right. Now we're getting
25 somewhere.

1 So next line you say "Again, the
2 applicant did not dispute the examiner's
3 rejection."

4 You see that?

5 A. I see that sentence. "The applicant did
6 not dispute the examiner's rejection." I see
7 that.

8 Q. Okay. And that is, again, your
9 understanding of what the applicant did in
10 response to that office action, correct?

11 A. Counsel, yeah, this one I think is
12 clear, right? "The applicant did not dispute the
13 examiner's rejection."

14 Q. And you agree with that statement and
15 that was your understanding at the time,
16 correct? I'm sorry.

17 You agree with that statement today and
18 that was your understanding at the time that you
19 prepared your declaration, correct?

20 A. Counsel, that was the statement that I
21 provide in my report, so that's -- after reviewing
22 that, you know, that's the understanding, that the
23 applicant did not dispute the examiner's
24 rejection.

25 Q. Again, we keep going back to "the"

1 understanding. That was not just the
2 understanding of someone. It was your
3 understanding, correct?

4 A. Counsel, I think that's -- go back to
5 what we just said earlier. That was the
6 understanding, you know, reviewing that action.
7 That the applicant did not dispute the examiner's
8 rejection and, hence, that I provide in my
9 report.

10 Q. Okay. All right.

11 Then the next sentence says, "Instead,
12 the applicant canceled Claim 1 and amended Claims
13 6 to 8 to depend from allowed independent Claim
14 2."

15 Do you see that?

16 A. Counsel, I do see that sentence,
17 correct.

18 Q. And, again, this was your understanding
19 at the time that you prepared your declaration
20 and -- well, let me just say that. Again, that
21 was your understanding of what the applicant did
22 in response to the office action dated February
23 4th, 2021, correct?

24 A. Counsel, similar to what I said before,
25 so I reviewed those documents based on the

1 understanding of that action on February 4th,
2 2021, and this is what I provided in my report.
3 "The applicant canceled Claim 1 and amended Claims
4 6 to 8 to depend" on -- sorry, "to depend from
5 allowed independent Claim 2."

6 Q. And, again, what you provided in your
7 report was your understanding of what happened in
8 response to that office action dated February 4th,
9 2021, correct?

10 A. Counsel, again, I think I already
11 answered that question. After reviewing that
12 document, that is the understanding of these
13 actions and that is the one I provide in the
14 report where "Applicant canceled Claim 1 and
15 amended Claims 6 to 8 to depend from allowed
16 independent Claim 2.

17 Q. Is there a reason that you are, I
18 believe, hesitating to say that was my
19 understanding? You keep saying that was "the"
20 understanding. So let's just be clear. That
21 was not the understanding of your attorneys.
22 It was your understanding of what happened,
23 correct?

24 A. In general, this is my report, so this
25 is the understanding, you know, that matters. So

1 I would agree, you know. Otherwise I wouldn't
2 provide it here, you know, in my report.

3 Q. So now let's go on to the next sentence.
4 It says, "Allowed independent Claims 2, 9, 11, and
5 19 were issued as Claims 1, 8, 11, and 16,
6 respectively."

7 Do you see that?

8 A. Counsel, I do see that sentence,
9 "Allowed independent Claims 2, 9, 11, and 19 were
10 issued as Claims 1, 8, 11, and 16, respectively."
11 I see that sentence.

12 Q. Okay. Did you make that assessment of
13 which claims were allowed and the numbering of the
14 claims as they issued?

15 A. Again, similar, Counsel. You know, I
16 reviewed those documents and that was the
17 understanding of that — you know, based on those
18 documents and that's the claims were issued as
19 Claims 1, 8, 11, and 16.

20 Q. Okay. So when you reviewed the
21 prosecution history documents, you recognized that
22 the allowed claims were independent Claims 2, 9,
23 and 11, correct?

24 A. The independent Claims 2, 9, 11, and 19
25 were issued as Claims 1, 8, 16, and — sorry, 11

1 and 16, respectively.

2 Q. That's what you recognized from
3 reviewing the prosecution history documents,
4 correct?

5 A. Counsel, I already answered that
6 question. After reviewing all the documents,
7 right, that was the understanding and then here I
8 just provide the summary in my report.

9 Q. Again, you said "the" understanding. You
10 didn't tell me whose understanding. So I want to
11 make sure that when you reviewed the documents,
12 the prosecution history documents, you recognized
13 that the allowed claims -- the allowed independent
14 Claims 2, 9, 11, and 19 were issued, correct?

15 A. That's what that sentence says.
16 "Allowed independent Claims 2, 9, 11, and 19
17 were issued as Claims 1, 8, 11, and 16,
18 respectively."

19 Q. But, again, I'm trying to understand.
20 Did someone explain that to you or did you
21 recognize that yourself from reading the
22 prosecution history documents?

23 A. Counsel, again, last year when I was
24 drafting the report, I reviewed a lot of
25 documents, all of the relevant documents, you

1 know, including this prosecution history. And,
2 again, that was the understanding of this and I
3 agreed to that and I summarized that in the report
4 and that's -- for instance, that's the sentence
5 that you were reading and I also read multiple
6 times.

7 Q. Okay. So you said you agreed with that
8 understanding. It sounds like someone provided
9 that understanding to you and then you agreed with
10 it. Is that right?

11 A. Not necessarily, right? "Agree" means
12 that when I was reading the document, you know, I
13 look at this and I say, hey, you know, is this A?
14 Is that B, right? And then finally I say, hey,
15 you know, B is the final outcome, so I agree to
16 this, you know, understanding or interpretation,
17 right? So that's -- you know, can also be a way
18 of agreeing.

19 Q. So you agree with yourself is what
20 you're saying?

21 A. It can be with yourself. It could be,
22 you know, collectively, you know. It can be --
23 yeah. Sorry, this is also, you know, same thing.
24 You know, when I was doing the research, right, I
25 look at things, like ideas. Okay. There are,

1 let's say, ten different possibilities. I need to
2 agree on, okay, these are the two out of the ten
3 that's the best solution. You know, things of
4 that nature.

5 So "agree" is a very general term.

6 Q. Okay. All right. So now let's get to
7 the next sentence which says, "I understand that
8 the examiner did not compare the claims identified
9 to recite allowable subject matter with any prior
10 art reference in either office action."

11 Do you see that?

12 A. Counsel, I do see that sentence.

13 Q. Okay. And, again, is this your
14 understanding or someone else's understanding?

15 A. Counsel, I thought this sentence is
16 quite clear. "I understand that the examiner did
17 not compare the claims identified to recite
18 allowable subject matter with any prior art
19 reference in either office action."

20 Q. Okay. So you yourself reviewed again
21 the prosecution history documents and you
22 understood when you reviewed those documents that
23 the examiner did not compare the claims identified
24 to recite allowable subject matter with any prior
25 references in either office action, correct?

1 A. So, Counsel, after I reviewed all the
2 documents, you know, including this prosecution
3 history, and that's what I conclude. "I
4 understand that the examiner did not compare the
5 claims identified to recite allowable subject
6 matter with any prior art reference in either
7 office action."

8 Q. Okay. So since this is what you
9 understood, can you tell me what you mean by "did
10 not compare the claims identified to recite
11 allowable subject matter with any prior art
12 reference in either office action"?

13 A. Counsel, I'm not sure what that -- you
14 know, that question is, you know, asking and what
15 I would provide here. You know, I thought what I
16 provide here is already very clear. "I understand
17 that examiner did not compare the claims
18 identified to recite allowable subject matter
19 with any prior art reference in either office
20 action."

21 Q. What do you mean by "did not compare"?

22 A. Counsel, did not compare just means did
23 not compare. When you compare A and B, that's
24 action of compare. If you did not do that, that's
25 did not compare.

1 Q. Okay. How do you know that the examiner
2 did not compare the claims identified to recite
3 allowable subject matter with any prior art
4 reference in either office action?

5 A. So, Counsel, again, I explained the
6 review process. At the time when I drafted the
7 report, I reviewed all the documents, including
8 the prosecution history, and this is the
9 conclusion that I stated here, that "examiner did
10 not compare for the claims identified to recite
11 allowable subject matter with any prior art
12 reference in either office action."

13 Q. Well, let me see if I can get some
14 clarity around this because I'm not sure I
15 understand your answer.

16 So is it your testimony here today that
17 when you prepared your declaration, you somehow
18 peered into the past and into the mind of the
19 examiner to see whether the examiner in any way
20 compared the claims identified to recite allowable
21 subject matter with any prior art reference in
22 either office action? Is that your testimony here
23 today?

24 MR. QIU: Objection to form.

25 A. Counsel, you're not -- I explained the

1 process that I did last year. I reviewed all the
2 documents, you know, this prosecution histories
3 and prior art references. And what I had
4 understood is what I provide in my report. "The
5 examiner did not compare the claims identified to
6 recite allowable subject matter with any prior art
7 reference in either office action." So that's --
8 that's the understanding.

9 Q. That wasn't my question.

10 My question was, did you have some
11 extrasensory perception that allowed you to look
12 into the past, into the mind of the examiner, and
13 make a determination that the examiner did not make
14 this comparison? Yes or no?

15 MR. QIU: Objection to form.

16 A. Counsel, I just -- I do not have a time
17 machine, you know, to go back to the past. So I
18 what I had done is exactly what I just said.
19 There was a set of documents, including the
20 prosecution history. That's a form of past, I
21 guess. I do not have a time machine to go back,
22 for sure.

23 So that's the prosecution history, you
24 know, I reviewed and, you know, the relevant
25 documents I reviewed and that was the understanding

1 that I clearly provide in my report, that "examiner
2 did not compare the claims identified to recite
3 allowable subject matter with any prior art
4 reference in either office action."

5 Q. I'm glad we've established that you
6 don't have a time machine because if you did, this
7 deposition would take an interesting turn. So let
8 me ask the question then a different way.

9 Did you conclude that the examiner did
10 not compare the claims identified to recite
11 allowable subject matter with any prior art
12 reference cited in either office action because you
13 did not see such a comparison in the documents that
14 you reviewed?

15 A. Counsel, as I clearly stated in my
16 report, I understand that -- again, let me just --
17 bear with me. You know, "The examiner did not
18 compare the claims identified to recite allowable
19 subject matter with any prior art reference in
20 either office action." So what I provide here,
21 you know, I think is clear. You know, it's the
22 understanding, you know, of that -- either office
23 action and that's what I provide here.

24 Q. Well, did the examiner state anywhere in
25 the prosecution history that he or she did not

1 compare the claims identified to recite allowable
2 subject matter with any prior art references in
3 either office action?

4 A. Counsel, you know, that's a lot of
5 documents that I had to review, you know, at the
6 time when I was forming my opinions and draft this
7 report. And, again, as I said here, after
8 reviewing those documents, "I understand that the
9 examiner did not compare the claims identified to
10 recite allowable subject matter with any prior art
11 reference in either office action."

12 Q. All right. Well, let me see if I can
13 help you here. I'm going to -- because I think
14 you had an exhibit that was -- there is an exhibit
15 here. Let me just find it.

16 MR. QIU: Counsel, I just
17 wanted to point out that the deposition
18 has been going on for about an hour. So
19 if there's a good point, we can take a
20 break, please do so.

21 MR. TIPESCU: Yeah, no problem.
22 I think we're almost at the hour mark, so
23 just a few more minutes and we'll take a
24 break.

25 BY MR. TIPESCU:

1 Q. Dr. Chen, in this section, "Prosecution
2 History," you cite to -- well, in this paragraph
3 20 of the prosecution history section in your
4 declaration, you cite to an Exhibit 1002. Is that
5 correct?

6 A. Counsel, I do see this Exhibit 1002.
7 Let me just double-check.

8 Counsel, that Exhibit 1002, I think that
9 should be the prosecution history.

10 Q. Perfect.
11 So do you have that in your binders?

12 A. I do not.

13 Q. That's a large one. Okay. That's okay.
14 I uploaded that document into the chat. You
15 should have it now. So when you get a chance,
16 please download that Exhibit 1002.

17 (Pause)

18 A. Counsel, I did download and I just
19 opened the pdf document.

20 Q. Okay. So I'll note that in this
21 paragraph 20 that we have been looking at, a lot
22 of these sentences or a lot of the statements you
23 make have a citation after them. However, the
24 sentence we've just been talking about most
25 recently regarding your understanding that the

1 examiner did not compare the claims identified to
2 recite allowable subject matter with any prior
3 reference in any office action, that sentence does
4 not have a cite after it, does it?

5 A. Counsel, I'm reading the sentence. I do
6 not see a citation after that particular sentence
7 you just quoted.

8 Q. So what support do you have for that
9 understanding that you set forth in that
10 sentence?

11 A. Counsel, you know, as I said, after
12 reviewing the entire document and relevant
13 documents and that's the understanding that I
14 provided here.

15 Q. Well, is that understanding based on
16 your review of the prosecution file history?

17 A. Counsel, the prosecution history and the
18 relevant — the prior art references.

19 Q. Okay. And despite that review you did
20 of the file history and the references, you could
21 not cite to any support in your declaration for
22 this proposition, could you?

23 A. Counsel, I wouldn't say that. So,
24 again, you know —

25 Q. No, no, no.

1 A. -- our understanding -- sorry, I cut you
2 off.

3 Q. Sir, I mean, I appreciate your trying to
4 explain, but this is a simple yes-or-no question.
5 You did not cite to any support, despite your
6 review of the file history and of the references
7 in the file history, despite that review, you did
8 not cite to any support for this sentence. Yes or
9 no?

10 A. Counsel, I think, as I mentioned, I
11 recognized that after this particular sentence,
12 there's no particular citation. I did acknowledge
13 that, right? But what I was saying is that, you
14 know, the understanding of a particular topic, you
15 know, sometimes you need to go through the entire
16 thing, right? So it's not just a single point
17 that you just say, oh, this, you know, element
18 A-1, this element A-2, right, if that something is
19 more specific, right, the smaller -- you know,
20 very concrete, smaller understanding, then there
21 could be some citation as you have seen, you know,
22 in some of my report.

23 Q. But you --

24 A. But this one is --

25 Q. I'm sorry. Go ahead.

1 A. So, yes. Counsel, yes, this is what I
2 said. After reviewing the entire document and all
3 the relevant prior art and that is the
4 understanding that I provide in this sentence.

5 Q. So if you could -- as you did in other
6 places in your report, if you could cite to
7 support for a proposition in your report, you
8 would cite to it, wouldn't you?

9 MR. QIU: Objection; form.

10 A. Counsel, I think I already answered that
11 question. If that subject matter is -- you know,
12 sometimes, you know -- for example, if I -- in my
13 report I talk about some specific term. Okay?
14 You know, it's apple. And this apple, you know,
15 does that appear in a certain section or paragraph
16 in that document? Then I would say, okay, that's
17 apple and I put that reference to talk about the
18 apple.

19 Some of the understanding you do need to
20 require to go over collectively to look at the
21 document. And this -- Counsel, as you recognized
22 also, earlier, this is a big document and those
23 are multiple references, right? So this, you
24 know, collectively is how I formed the
25 understanding here.

1 And I did cite that document, right? So
2 I mean, here, you know, this whole document, you
3 know, in this section, you know, I guess II.A,
4 right? So that's the document that I considered,
5 you know, along with, you know, different prior art
6 reference. You know, a few examples I had
7 mentioned before, Exhibit 1017, 1018, 1019, and so
8 on and so forth. So it's collectively that yields
9 this understanding. And here, you know, I just
10 provide the understanding, you know, in the report.

11 Q. Sir, I have no idea what you just said.
12 I'm going to move to strike that as nonresponsive
13 because it in no way responded to my question.

14 So let's take a quick break and come back
15 after the break and we can continue.

16 MR. QIU: Counsel, would you
17 like five minutes or ten minutes?

18 MR. TIPESCU: Whatever the
19 witness wants.

20 THE WITNESS: Can we take a
21 ten-minute break so I can refill my water
22 and tea and all that?

23 MR. TIPESCU: Sure. Ten
24 minutes.

25 (Whereupon, a recess is

1 taken.)

2 BY MR. TIPESCU:

3 Q. All right. So, Dr. Chen, so let's look
4 at Exhibit 1002. And if I could ask you to turn,
5 please, to page 391 of Exhibit 1002.

6 A. Counsel, did you say page 392?

7 Q. Actually, let me ask you to turn to page
8 389. 389 of -- and I'm using the numbering in the
9 lower right-hand corner.

10 A. Oh, I see. Okay. So I'm at 389.

11 Q. Okay.

12 A. Page.

13 Q. Page 389. There's a document that
14 begins here at page 389 and it continues up to
15 page 396 or 395, actually.

16 Do you recognize this document? Do you
17 know what this is?

18 A. So starting from page 389, it looks like
19 that's the document, you know, the patent office.
20 And then if you go to 390, so there's a table.
21 It's a office action summary.

22 Q. Okay. And after that table is the
23 actual office action, correct?

24 A. It's the actions that's provided within
25 that office action summary.

1 Q. Okay.

2 A. Correct.

3 Q. In fact, you cited this document in your
4 declaration, did you not? Let's go back and look
5 at paragraph 20. If we go on the -- on page 18 of
6 your declaration, again, six lines down from the
7 top of the page in your declaration, page 18, it
8 says, "In the final office action dated February
9 4th, 2021, the examiner rejected Claims 1 and 6 to
10 8 as obvious in view of the combination of Kolze
11 and Thirumoorthy."

12 Do you see that?

13 A. Counsel, I see that sentence right
14 there, yes.

15 Q. And you cited to Exhibit 1002, which is
16 the exhibit we're looking at now, pages 389 to
17 396.

18 Do you see that?

19 A. Counsel, I see that. I see that
20 citation.

21 Q. So, now, is it your understanding
22 today that the document that I'm asking you about
23 is this final office action dated February 4th,
24 2021?

25 A. So, Counsel, that's the -- reading on

1 that page 389, I see that 2021 February 4th.

2 Q. All right. So in this office action --
3 in this final office action dated February 4th,
4 2021, the examiner not only rejected Claims 1 and
5 6 to 8, but he also indicated allowable subject
6 matter consisting of Claims 2 to 4, 9, 11 to 13,
7 15 through 19, and 21 to 23, correct?

8 A. Counsel, I believe you are reading from
9 that page 390, that Item 5 and 6. Is that -- is
10 that correct? That's what you're reading
11 essentially?

12 Q. I will point you, but, yes, that is one
13 place. But do you agree with me that in this
14 office action, the examiner indicated that those
15 claims are allowable? Yes?

16 A. I'm reading, for example, the one that I
17 just found, that claim -- I'm sorry, Item number
18 6, "Claims 2 to 4, 9, 11 to 13, 15 to 19, and 21
19 to 23 is/are allowed." I read that sentence.

20 Q. Okay. And, in fact, if you go down to
21 the end of the -- towards the end of the office
22 action on page 393, there's a section called
23 "Allowable Subject Matter."

24 Do you see that on page 393?

25 A. I see that sentence on page 393.

1 There's a Section 4 maybe. Yeah, 4. "Claims 2 to
2 4, 9, 11 to 13, 15 to 19, and 21 to 23 are
3 allowed." I see that sentence, Counsel.

4 Q. Okay. And, Dr. Chen, I will represent
5 to you that at least Claim 2 that the examiner
6 indicated was allowable subject matter in this
7 office action corresponds to the independent Claim
8 2 that we refer to later in your declaration in
9 this paragraph that was allowed and issued as
10 Claim 1. Okay? I'll make that representation to
11 you.

12 A. Sure.

13 Q. Okay. With that representation, can
14 you -- looking at this final office action, at
15 Exhibit 1002, pages 389 to 395, looking at this
16 final office action -- or, I'm sorry, let me
17 rephrase that.

18 In view of the statement in this final
19 office by the examiner at page 393 that certain
20 claims, including Claim 2, was allowed, why do you
21 believe that the examiner did not compare the
22 claims identified to recite allowable subject
23 matter with any prior art reference in either
24 office action?

25 MR. QIU: Objection to form.

1 (Pause)

2 A. Sorry, Counsel, I was reading -- it's a
3 long document. I was reading this page.

4 So, Counsel, let me make sure I still
5 remember your question. Your question is that,
6 you know, in this section that you kindly pointed
7 out to me, you asked me whether this examiner did
8 not compare the claims identified to recite
9 allowable subject matter with any prior art
10 reference in -- in this case, in this particular
11 office action.

12 That was the question, is that --

13 Q. No. Let me be clear here. It's close
14 but not quite there, so let me make sure we're on
15 the same page.

16 A. Sure. Sure.

17 Q. My question is, in view of the statement
18 in the final office action by the examiner at page
19 393 that certain claims, including Claim 2, were
20 allowed, why did you believe that the examiner did
21 not compare the claims identified as allowable
22 with the prior art references cited in this office
23 action or any other office action?

24 A. Sure, Counsel. So let's -- since I just
25 only checked this particular action office -- I'm

1 sorry, office action item, reading this, I see
2 that, for instance, this allowable subject matter.
3 So I think that refers to paragraph number 4 of
4 this document.

5 It does say that Claims 2, 4, 9 and so
6 on and so forth, you know, are allowed, end of
7 section. Okay? It then just goes straight to the
8 conclusion.

9 There's no evidence here, right, to say
10 that, oh, it's not -- and, in fact, I already said,
11 actually, you know -- counsel, I actually provide
12 that already in my report. The examiner -- nor did
13 the examiner or the applicant explain why these
14 claims were not obvious in view of the prior art,
15 and that's consistent to what I see, you know, here
16 in that particular section, Counsel, I just
17 mentioned. Paragraph 4 clearly stated that, you
18 know "Claims 2 to 4, 9, 11 to 13, 15 to 19, and 21
19 to 23 are allowed," period, and then just move on
20 to conclusion.

21 And that's opposed to, for instance --
22 you know, that's why it's taken me some time to
23 read. You know, if we look at paragraph 3 and
24 then, you know, I see that, you know, examiner
25 explainer -- sorry, explains, you know, why those

1 were rejected, you know in view of the prior art.
2 Actually, you know, the examiner mentioned about
3 some prior art and, in view of that, why that
4 should be rejected, you know.

5 So just in this particular report, you
6 know, or at least in that paragraph 4, you know,
7 there's action. The action, you know, I confirmed
8 that it is those claims, you know, including Claim
9 2, Counsel, as you already mentioned, are allowed,
10 period. Okay? So that's why I was reading this,
11 just this particular document, and I did not see
12 examiner compare those, for example, Claim 2, why
13 that should be not obvious, you know, in view of
14 the prior art.

15 Q. Okay. So do you know if the patent
16 examiner here was required to set forth any
17 comparison of the claims with the prior art
18 referenced in the office action when he indicated
19 allowable subject matter?

20 MR. QIU: Objection to form.

21 A. Counsel, I do not wish to speculate
22 here.

23 Q. I'm not asking you to speculate. I'm
24 just asking, do you know if he was required? If
25 you don't know, that's fine. If you do know,

1 that's fine, too. It's a yes-or-no question.

2 Do you know if he was required or she was
3 required to compare the claims identified to recite
4 allowable subject matter with the prior art
5 references explicitly in the "Allowable Subject
6 Matter" section?

7 A. Counsel, I do not -- again, I do not
8 want to speculate. However, you know, I do see
9 some part of this document, when they talk about
10 allowable subject matters, you know, there's
11 mention about how -- the reasons, you know, in
12 view of the prior art. So that's what I can see
13 just from this document, in one of the pages.

14 Again, I do not want to speculate sitting
15 here right now, but I do see other parts of this
16 document, you know, when they don't end by that
17 sentence. They don't just say, oh, claim this are
18 allowed and they do move on to conclusion. I do
19 see, you know, that there's explanation to explain
20 why that is not obvious in view of the prior art.
21 And that is consistent to what I provide in my
22 report, nor did the examiner or the applicant
23 explain why these claims were not obvious in view
24 of the prior art.

25 So if you like, you know, for example,

1 page 165 is another -- is one example. You know,
2 that section does not end in that single sentence,
3 right? So there's additional explanations and
4 things like that.

5 Q. Very good, Dr. Chen.

6 So sitting here today, you think that the
7 examiner may have been required to provide a
8 comparison or an explanation of the allowable
9 subject matter in relation to the prior art? Is
10 that what your testimony is?

11 A. Counsel, again, I do not wish to
12 speculate sitting here today. All I point out is
13 that, you know, I do find another section in this
14 long document where I can see the explanations,
15 you know, how that's relevant, why that should be
16 not obvious, you know, in view of the prior art
17 and that's my testimony today sitting here.

18 Q. And why would you be speculating if you
19 were to provide any other answer? Is it because
20 you don't know whether there is such a
21 requirement?

22 A. Counsel, as I said, you know, I do see
23 the evidence that, in other sections, that does
24 provide, you know, the reasons, you know, similar
25 to, Counsel, the one that we just checked, right?

1 Remember in the rejection? I do see that the
2 examiner provides the reasons why that should be
3 rejected in view of the prior art.

4 So at least for those two circumstances,
5 you know, I do see that the examiner provides the
6 reasons and in view of the prior art, you know,
7 that kind of relationship, right?

8 What I do not see is that, you know,
9 particular allowable subject matters in that
10 section. All I see is this claims -- sorry, I
11 forgot the numbers -- the 2 and dot, dot, dot, all
12 that, you know, are allowed, period. So there's
13 no other sentence, you know, in that section.
14 There's no further evidence in that section. And
15 that's what I can see sitting here today.

16 Q. Apart from what you see elsewhere in the
17 prosecution history of the '111 patent, are you
18 aware of any requirement, statutory or from the
19 patent office, that the examiner include a
20 comparison of the allowable subject matter in the
21 prior art in an office action?

22 A. Again, Counsel, as I mentioned before,
23 you know, I look at the relevant information,
24 right, whenever I opine certain opinions and
25 things like that, right? But things like this,

1 Counsel, you just kindly showed me some documents
2 here, which of course I considered during the
3 drafting of my report. And that's why I go
4 through this and I look at this and that's what my
5 observation is, right, and what I think, you know.
6 Yeah, this one does talk about -- this section
7 talks about the relation to the prior art, in view
8 of the prior art.

9 However, you know, as I said, you know,
10 clearly in that section for that final office
11 action that, Counsel, you pointed out, I just see
12 that one sentence. That was allowed and --

13 Q. I'm not -- you have not answered my
14 question in any way, shape or form. It's simply
15 yes or no.

16 Are you aware of any requirement that an
17 examiner must include a discussion, a comparison,
18 of the allowable subject matter and the cited prior
19 art in an office action such as the one we're
20 looking at right here? Yes or no?

21 A. Sitting here, Counsel, you know, like I
22 said, I do not want to speculate. You know, there
23 can be circumstances, like I said before, you
24 know, when I worked with our legal team at the
25 university as an example, right? So they may have

1 told me, you know, about, you know -- more about
2 what's the regulation or the requirement or
3 anything, you know, on the legal. So I might have
4 known when I was reviewing the document.

5 All I'm just saying that, you know,
6 sitting here, right now, it says a lot of
7 document, a lot of, you know, prior arts, right,
8 that I had to review and that's the -- that's the
9 observation that I just provide, you know. Just
10 in this document, I have seen sections examiner
11 clearly show, okay, these are rejected, these are
12 allowed, and those are the reasons. Those are
13 evidences, you know, why that's obvious or not
14 obvious in view of the prior art.

15 However, you know, that particular final
16 office actions that we went over, we looked
17 together, I see, look -- sorry. Okay. Just to
18 clarify, I do see Claims 2, blah, blah, blah, they
19 were allowed, period. There's nothing more that,
20 you know, the examiner provide in that particular
21 document which is the final office actions on that
22 date, you know, provide any reason or explanations
23 why those claims were not obvious in view of the
24 prior art. And that is, again, consistent to what
25 I provide in my report.

1 Q. Okay. So the examiner doesn't, as you
2 point out, in this section, "Allowable Subject
3 Matter," Paragraph 4 at page 393, include a
4 comparison of the allowable subject matter to the
5 prior art. And is that the basis for your
6 statement -- well, let me -- strike that. Let me
7 rephrase this.

8 I understand your point about the fact
9 that paragraph 4 simply says claims -- that certain
10 claims are allowed.

11 Is the basis for your statement in your
12 declaration that the examiner did not compare the
13 claims identified to recite allowable subject
14 matter with any prior art references, is the basis
15 for that statement the lack of any comparison here
16 in paragraph 4?

17 A. Counsel, as I mentioned before, you
18 know, I reviewed all the documents. You know, all
19 the relevant information. What I just pointed
20 out, you know, is one of the, you know, evidences,
21 you know, and that's clear that -- you know, that
22 sentence and there's nothing explained, you know,
23 as opposed to even in the same document, you know,
24 we can clearly see paragraph 3, the examiner
25 explained the reasons, the comparisons, right, to

1 the prior arts. That was the reasons why those
2 should be rejected.

3 So that is one of the observations,
4 right, that, you know, confirm what I had
5 provided, that understanding, you know, of that
6 topic about the, you know, examiner's actions,
7 right? And, also, as I described here, the last
8 sentence, you know, "Nor did the examiner or the
9 applicant explain why these claims were not
10 obvious in view of the prior art."

11 So they are consistent.

12 Q. And so if I understand you correctly,
13 you are inferring that the examiner did not make
14 such a comparison because he did not include it in
15 this document or in the prosecution history for
16 the '111 patent, correct?

17 A. Counsel, no, I did not say that, right?
18 So what I said earlier is that, you know, it's
19 based on reviewing the entire, you know,
20 information, documents, prior arts. And this is
21 one of the evidences, right, to show that, you
22 know, there's no further explanation to show that
23 is compared.

24 You mentioned a case that, you know, if
25 here in this "Allowable Subject Matter" section,

1 right, the examiner does say, Oh, it's rendered
2 not obvious, not obvious in view of the prior art,
3 oh, because of this prior art A and B. Then I can
4 understand that, okay, examiner -- examiner show
5 the evidence that, you know, he did compare and he
6 did provide a reason.

7 And, simply, Counsel, that is not what I
8 see here. It's just as one example.

9 Q. So this is one example in this final
10 office action. The lack of a comparison here in
11 this final office action is one piece of evidence
12 that you are relying on to conclude that the
13 examiner did not compare the claims identified to
14 recite allowable subject matter with the prior art
15 references, correct?

16 MR. QIU: Objection; form.

17 A. Counsel, I think I already explained a
18 few times. I reviewed all the documents and this
19 is one example. And why this example, because,
20 you know, I cited and you also happened to bring
21 this up during this conversations -- or
22 deposition, sorry, and we reviewed together,
23 right?

24 So I check this and I provide what I have
25 seen here. Paragraph 4, you know, is just that

1 those certain claims are allowed, period, and
2 there's nothing more. And then that, again, is
3 consistent to what, also, I provide in the report,
4 right? Examiner nor applicant does not, right,
5 explain why these claims were not obvious in view
6 of the prior art.

7 So they are consistent. So that is what
8 I'm saying to you today.

9 Q. Well, how do you know, Dr. Chen, that
10 the examiner did not compare the claims, the
11 allowed claims, with the prior art references
12 offline, apart from anything he stated in this
13 file history, in this prosecution history?

14 MR. QIU: Objection to form.

15 A. Counsel, you know, we discussed this
16 earlier. Because I do not have a time machine,
17 unfortunately I cannot go back to him. And not
18 just that, you know. I do not have this measured
19 machine device to begin, you know? So
20 unfortunately, you know, those are the physical
21 limitations, right?

22 So what I had to do, right, when I
23 formed my opinions, when I draft my report, I need
24 to rely on the actual documentation. And this is
25 one important documentation, right, on the

1 prosecution history. So this is something that I
2 can rely on. And I read, I review this document,
3 and the example that we go over a few times today,
4 that particular section, the examiner does not
5 explain why those particular claims, including
6 Claim 2, were allowed because of something
7 something, you know.

8 So the lack of that, you know, does
9 confirm that, you know, what I said in my report
10 is consistent, you know, with what I said in the
11 report. And this is something that I can rely on.
12 I don't need a time machine. I don't need that
13 time machine or things like that, and that's where
14 I form my opinion. I just have to rely on the
15 real document, physical document, that I can have
16 access to to review. And, hence, I write what I
17 provide in my report.

18 Q. So you're relying on the fact — so this
19 is one example that you're relying on and you're
20 relying on the fact that the examiner did not
21 explicitly include a comparison of the claims, the
22 allowed claims, with the prior art references
23 cited in the office action, correct?

24 A. Counsel, I thought you already asked
25 that question, so let me repeat again. You know,

1 I reviewed the whole document, right? I
2 understand the prior art and this document, this
3 section of the document that we just reviewed
4 together, right?

5 So it certainly provided one of the good
6 evidence, an example, right, to show that, you
7 know, the examiner did not, right, explain, you
8 know, why those particular claims, you know, were
9 not obvious in view of the prior art. And that's
10 what I provide in my report and that's why I say I
11 did not see that, right? It is consistent. You
12 know, again, you know, again, it just happens to be
13 the document that we are looking together today at
14 this point.

15 Q. And are you inferring from this example
16 that the examiner did not compare the allowed
17 claims with the cited prior art references in his
18 mind?

19 MR. QIU: Objection to form.

20 A. Counsel, I believe I answered that
21 question multiple times. You know, again, this
22 is -- after reviewing the whole, you know,
23 document and know the prior art references, this
24 particular document, you know, that -- saying just
25 that one sentence without any explanation, you

1 know, without further -- just what he actually
2 did, he or she, sorry, did for that rejected
3 section, right?

4 So you mentioned if he or she were to
5 provide that in that section, then -- then I
6 wouldn't, you know, say that, oh, you know, he or
7 she did not, you know, explain why that's not
8 obvious in view of the prior art, right?

9 So, yeah, so this is what I said
10 earlier, you know. This is one evidence or
11 examples that is consistent to what I, you know,
12 offered in my opinions in my report.

13 Q. Okay. So with that in mind, let me ask
14 you, why did you include this observation or this
15 conclusion that the examiner did not compare the
16 claims identified to recite allowable subject
17 matter with any prior references in either office
18 action in your declaration?

19 MR. QIU: Objection to form.

20 A. So, Counsel, you know, as I said, you
21 know, I reviewed a lot of documents, including
22 prior arts and things like that, right? So
23 whenever I review those, you know, I would have my
24 understanding, right, or observation, as we
25 discussed earlier. And I tend to document, you

1 know, just to show that, you know, okay, I
2 understand. What I observed is that, oh, they did
3 not explain why these claims were not obvious in
4 view of the prior art.

5 So, yeah, I think that's -- I don't
6 know. It's quite natural to me, you know, to do
7 this. You know, just like when I lecture a class,
8 you know, I also summarize. Oh, yeah, you know,
9 this prior art's doing this. Okay. These are the
10 summary, you know, what I found, you know. What I
11 teach the students, right? So that's just a way
12 of, you know, how I process, you know,
13 information.

14 And, likewise, you know, in that
15 paragraph 91, that's another observation, right?
16 So I also say that none of the references used in
17 the invalidity grounds discussed in my reports
18 were considered during examination. Yeah. So I
19 just point out, you know, things that I review and
20 that's my understanding. That's my observation.

21 Q. Dr. Chen, did you rely on your
22 conclusion that the examiner did not make such a
23 comparison in forming any of your opinions under
24 Grounds 1 through 5 of your report?

25 A. Counsel, in my report, in my section --

1 Q. In your declaration. I'm sorry.

2 A. In my declaration. Yep. In my
3 declaration, as I also mentioned in paragraph 21,
4 right? So if you can please go to page 23 of my
5 declaration report, you can see that there are
6 five grounds that I used for my analysis, and
7 those prior arts, you know, Berke, Cornelius, Ran,
8 Stauffer, Mejia. And as I said in 21, you know,
9 they were not considered, you know, during the
10 examination, right? So that --

11 Q. Well, I'm not asking about whether these
12 were considered during the examination. You're
13 avoiding the question and you're filling up time
14 in the record with useless information. I'll ask
15 my question again. Please stay focused.

16 My question is, did -- actually, I'll
17 read my question back from the record.

18 (Whereupon, the record was read
19 back.)

20 A. Counsel, as I mentioned earlier, I base
21 off those references I just mentioned -- Berke,
22 Cornelius, Ran, Stauffer and Mejia -- those are
23 what I, you know, used to, you know, form my
24 opinions. That's what I know. That's what I
25 remember.

1 However, Counsel, if you believe that I
2 actually used any of that conclusion you just
3 mentioned in any section of the report, please
4 feel free to point that to me and I can help take
5 a look, you know, to see what's the relation to
6 that.

7 What I recall and what I remember is the
8 five grounds. I'm relying on Berke, Cornelius,
9 Ran, Stauffer and Mejia. But, again, you know,
10 Counsel, any reason you believe that I actually
11 used whatever that you're asking, you know,
12 anywhere in my report, I'd be happy to go and take
13 a look.

14 Q. Well, sir, by your own logic, if you did
15 not rely on your conclusion that the examiner did
16 not compare the allowed claims with any prior art
17 references in either office action anywhere in
18 your report under Grounds 1 through -- in your
19 declaration under Grounds 1 through 5, does that
20 mean that you, in fact -- can I infer that, in
21 fact, you did not rely on this conclusion for any
22 of those invalidating grounds simply because you
23 didn't cite it there?

24 MR. QIU: Objection to form.

25 A. Counsel, I did not say that. So just to

1 make it clear, you know, all the five grounds I
2 was based off those -- one, two, three, four,
3 five -- five references that I mentioned earlier.
4 I know that's how I formed my analysis and
5 opinions. Okay?

6 And all I point out is just that, you
7 know, if, Counsel, you -- you feel that or you
8 think that I had to rely on, you know, for example
9 that conclusion, that thing that you mentioned
10 about anywhere in my report, I'll be happy to
11 review that together with you.

12 Q. Well, I'm not saying you relied on it in
13 your report. I'm asking if, in fact, you never
14 mentioned it again, if you never mentioned in your
15 report again that the examiner did not compare the
16 claims identified to recite allowable subject
17 matter with prior art references, if you never
18 mentioned that again in your report, does that
19 mean that that conclusion did not play any part in
20 your analysis?

21 A. Counsel, I think, you know, even 21,
22 paragraph 21, I also, you know, mentioned this.
23 The five grounds that I provide in my declarations
24 are based off those five references that were not
25 considered during examination. Okay? But, you

1 know, if, Counsel, you think or you believe that,
2 you know, I actually had to rely on that
3 conclusions that we just talked about, I'll be
4 happy to go and take a look, you know.

5 And I emphasize again, you know, I rely
6 on those analysis based off those five references
7 that were not --

8 Q. Dr. Chen, I don't know what you had to
9 rely on. I mean, this is your declaration.

10 What I'm getting at is you have an
11 opinion here that the examiner didn't compare the
12 claims, the allowed claims, with the prior
13 references, presumably because he didn't put that
14 comparison in -- that comparison is not anywhere in
15 the file history.

16 So by that logic, I'm asking you if your
17 analysis under Grounds 1 through 5 do not mention
18 or include references to this comparison conclusion
19 from paragraph 20, does that mean that this
20 conclusion of yours played no part in your
21 analysis simply because it's not under Grounds 1
22 through 5?

23 A. Counsel, I thought we were speaking --
24 you know, this is my observation, you know, that
25 conclusion thing that we, you know, talked about

1 in the prosecution history. And because
2 prosecution history is, you know, part of my
3 report, right, part of my declaration, so it is
4 one of the observations or opinions that I offer,
5 you know, in my report, right?

6 So I think, you know, it's not fair to
7 rule out, you know, whatever I had observed, what
8 I had reviewed, you know, out of the picture,
9 right? But, again, you know, what I do want to
10 emphasize is that, you know, not only the
11 references that I used, you know, the particular
12 five references I used, you know, for the grounds
13 were not considered during examination, right? So
14 that's a really important, you know, factor that I
15 do want to point out, or fact, yes.

16 Q. Well, sitting here today, can you tell
17 me if your conclusion at paragraph 20, that the
18 examiner did not compare the claims identified to
19 recite allowable subject matter with any prior
20 references in either office action, is -- whether
21 that conclusion is significant in any way to any
22 of your opinions under Grounds 1 through 5?

23 A. Counsel, I guess that's how we define
24 significance, right? So it is true that I did
25 offer that conclusion or observation as Section

1 II.A and I used a good one, two -- three
2 paragraphs as part of my declaration and report.

3 So one can say that that's significant
4 just because of the fact that I include that as
5 part of my declaration report. However, I do also
6 point out, right, just as I point out here, you
7 know, in 21, is that, you know, all those five
8 references I used in my Grounds 1 to 5 were not
9 considered during examination.

10 Q. Well, did your understanding that the
11 examiner did not compare the allowed claims with
12 the prior references make it more or less likely
13 that the combinations you've asserted under
14 Grounds 1 through 5 invalidate the claims of the
15 '111 patent?

16 A. Yeah, Counsel, what you're asking here
17 is a relative term and, you know, how we define
18 "more or less." But what I will say is that last
19 year when I was drafting the report, I reviewed
20 prosecution history. I reviewed all the relevant
21 documents, the prior arts, right. You know, all
22 those relevant to that prosecution. And those
23 were the prior arts that I used, the five
24 references I just mentioned about, right,
25 including others.

1 So I do, you know, review all of them.

2 If the question is more or less, you know, it's a
3 little bit hard for me to kind of -- do you feel
4 that's more or do you feel that's less?

5 Okay. So that's -- you know, because I
6 kind of -- I see the whole thing as the package,
7 you know. I see the whole, big picture and then I
8 summarize and form opinions into those Ground 1 to
9 Ground 5. So that's the procedure that I -- you
10 know, I've done.

11 And I'm not sure, you know, how to say,
12 oh, Dr. Chen -- for example, if you ask me today,
13 the sky's blue. You know, do you feel that, you
14 know, you are more affirmative, you know, to
15 provide this Ground 2, for example, I'm not sure,
16 you know, how I should judge that, you know.

17 Q. Dr. Chen, I'm not sure I should judge
18 that either, we're talking about the sky being
19 blue, so I think we're a little off topic here.
20 But I am -- I'll withdraw that question. Let me
21 ask it a different way.

22 Did your conclusion that the examiner did
23 not compare the allowed claims with any prior art
24 references cited in either office action help you
25 in any way in your analysis under Grounds 1 through

1 5?

2 A. Counsel, yeah, again, you know, I'm not
3 sure what you meant by "help." Help can be in
4 many forms. But what I'm saying --

5 Q. All right. I'll withdraw it because,
6 again, we're going to go off topic here, Dr. Chen.
7 I understand where you're going with all this.
8 Let me ask it a different way.

9 Did your conclusion that the examiner did
10 not compare the claims identified to recite
11 allowable subject matter with any prior art
12 references in either office action help your
13 understanding of whether the combinations asserted
14 under Grounds 1 through 5 invalidate the claims of
15 the '111 patent?

16 A. Counsel, as I mentioned before, when I
17 draft the report, I do that in sequence, right?
18 So first I understand the background and starting,
19 arguably, prosecution history is one important
20 one, right? So I need to understand that
21 background. I also need to understand the
22 technology, right, that's under dispute here,
23 right? The subject matter I should say.

24 So I review all that, right? And then I
25 start to, you know, read, you know, all those

1 prior art. You know, in particular, those, you
2 know, five, you know, prior arts. And then after
3 I go over this and I start to form my opinions, I
4 say, hey, you know, this -- I know that Ground 1
5 is this. I use this particular, you know, prior
6 art reference, A and B, as an example, right? So,
7 and that's how I, you know, proceed and form an
8 opinion and finally combine that into this
9 declaration.

10 So it's a whole, right -- it's a whole
11 procedure. If you say that, okay, Dr. Chen, you
12 know, if you take out, okay, do not review, okay,
13 this prosecution history and do not review any
14 prior arts or what those prior arts, you know, can
15 you still finish the reports? I guess probably
16 not, right? Because, you know, I kind of need to
17 see the whole picture, right? I need to see,
18 okay, what's there, what has been said, what has
19 been considered, right?

20 And that's why, for example, you know,
21 some of the observation -- sorry, observation that
22 I provided, right, that's why it went into my
23 report. And also including that I point out that,
24 you know, the five references that I used were not
25 considered during the examination as an example,

1 right?

2 So this is a whole package that I did,
3 right, in that sequence. So I'm not sure, you
4 know, when you say help or not help. What I will
5 say is that, you know, if I did not review those,
6 it is true that, you know, it's just hard for me
7 to continue, right, to even say, oh, you know
8 what? These are the five references. These are
9 the five grounds that, you know, would then form
10 my opinion.

11 So that's how I did it. You know, that's
12 actually what happened. Yeah.

13 Q. Okay. I think -- I mean, again, I think
14 the board is -- or would be interested in
15 understanding your level of understanding of some
16 of the statements in the declaration, so I think
17 that's an answer that we can present to the board
18 and have them make what they will of it.

19 MR. TIPESCU: But I think now
20 might be a good time for a break. I
21 think we've been going for about an hour,
22 if I'm not mistaken.

23 MR. QIU: That sounds good.

24 THE WITNESS: Okay. We can
25 take a break.

1 (Whereupon, a recess is
2 taken.)

3 BY MR. TIPESCU:

4 Q. All right, Dr. Chen. We're back on the
5 record.

6 Let me then turn to your grounds of
7 invalidity in your declaration. So let's go to
8 Exhibit 1003 at paragraph 32. This is your
9 declaration at paragraph 32.

10 A. Okay. I'm at 32 now.

11 Q. Are all of your opinions in this
12 proceeding provided in this declaration, Exhibit
13 1003?

14 A. Counsel, these are all the grounds that
15 I provide in my declaration report, correct.

16 Q. Okay. And all of your opinions, in
17 fact, in this proceeding are provided in this
18 declaration in Exhibit 1003, correct?

19 A. That's the technical part of the
20 opinions is within this Ground 1 to Ground 5,
21 correct.

22 Q. All right. So I understand that your
23 technical opinions under Grounds 1 through 5 are
24 in the declaration, but I'm asking about any
25 opinion that you intend to provide in this

1 proceeding is provided in this declaration at
2 Exhibit 1003, correct?

3 A. Related to the claims, they are all in
4 this section, that is correct, right. But
5 earlier, you know, as we kind of also went over,
6 there's some section about history and things like
7 that, right, so that's the other part.

8 Q. Let me back up. It's my fault. Let's
9 not focus on invalidity grounds for now.

10 I'm just asking, generally speaking,
11 right, all of your opinions that you intend to
12 provide in this proceeding are contained in this
13 declaration at Exhibit 1003, the entire declaration
14 in Exhibit 1003?

15 A. Oh, the entire declaration. Okay. Yes.
16 Yes. That's -- yeah, sorry.

17 Q. All right. So now we can go and focus
18 on the invalidity grounds specifically in Section
19 V of your declaration. That's why I had you look
20 at paragraph 32. And there's a table here that
21 you included at paragraph 32 and you identify the
22 statutory basis for each one of the grounds.

23 Do you see that?

24 A. Counsel, I see that. I see that table.

25 Q. So am I correct that you are not

1 offering any opinions regarding invalidity based
2 on anticipation in this proceeding? Is that
3 correct?

4 A. Counsel, as you can see, you know, in
5 each of the grounds I used two or three prior art
6 references.

7 Q. Okay. Well, besides the fact you used
8 two or three prior references, you indicated the
9 statutory basis for each ground is Section 103.

10 Do you see that?

11 A. Counsel, I see that.

12 Q. What is Section 103?

13 (Pause)

14 A. So, Counsel, I think you are asking
15 related to the legal, you know, aspects. And then
16 if you can please go to page 176 in my declaration
17 report. I think specifically you mentioned about
18 this 103. I see here that, you know, here, you
19 know, in that "Legal Standard for Prior Art"
20 sections, I think that's related to that. Here I
21 say "I'm not an attorney. I've been informed by
22 attorneys of the relevant legal principles and
23 have applied them to arrive at the opinions set
24 forth in this declaration.

25 "I understand that the petition for inter

1 partes reviews, IPR, may request the cancellation
2 of one or more claims of a patent based on the
3 grounds available under U.S.C. 102 and U.S.C. 103
4 using prior art that consists of patents and
5 printed publications."

6 And then obviously you can see
7 afterwards there are a lot of details, you know,
8 on this anticipation and prior art, on this legal
9 standard for obviousness, and also legal standard
10 for constructions. There are quite a few
11 sections.

12 Counsel, is there any particular aspect
13 that you are interested in that? So basically,
14 this is a legal part. And as I mentioned earlier,
15 I'm not an attorney. So I've been informed by the
16 attorneys for the relevant legal principles and
17 that's documented in that last section of my
18 declaration/report.

19 Q. Well, Dr. Chen, what I am very
20 interested in is what is your understanding of
21 Section 103, "Statutory Basis," as indicated in
22 the chart that you presumably drafted and included
23 in your declaration at paragraph 32.

24 (Pause)

25 Q. Dr. Chen, I'll withdraw that question.

1 Let me ask a different question since it's been a
2 couple of minutes here.

3 Other than the answer you just gave me,
4 sitting here today, do you have any understanding
5 of what Section 103, "Statutory Basis," as
6 indicated in the chart at paragraph 32 of your
7 declaration, is?

8 A. So, Counsel, I think that my
9 understanding about the laws or regulations are
10 documented in Appendix 4 and that's what I used,
11 you know, to form those opinions on Ground 1 to
12 Ground 5.

13 Q. All right. Well, then take a look at
14 your appendix, the legal section, and tell me,
15 what is Section 103?

16 A. Counsel, since I mentioned that, you
17 know, 103 in that patent -- I'm sorry, in Appendix
18 4 related to, you know, cancellation of one or
19 more claims of the patent. So I think this is
20 related to the invalidity, you know, of the patent
21 claim, right, or part of the claims. Whether you
22 fulfill that requirement, you know, for instance,
23 whether that's obvious, you know, if that's
24 obvious, then, you know, you cannot be patented
25 for that particular, you know, patent claims.

1 So that's the general understanding. Of
2 course, you know, then it involves a lot of
3 details and that's where, you know, one would, you
4 know, for example, go for information, like
5 Appendix 4, you know, to seek for the guidance
6 from the legal, you know, aspects.

7 Q. Is it your understanding that Section
8 103 is -- well, I'll withdraw that question. Let
9 me rephrase it.

10 Is it your understanding, Dr. Chen, that
11 obviousness is one -- let me go back and look at
12 your question -- your answer here more carefully,
13 Dr. Chen, so I understand exactly what you're
14 saying.

15 A. Sure.

16 Q. So, Dr. Chen, you said a minute ago
17 "Whether you fulfill that requirement, for
18 instance, whether that's obvious, you know, if
19 that's obvious, then, you know, you cannot be
20 patented for that particular patent claims."

21 So is obviousness in your understanding
22 one part of Section 103?

23 A. What I'm saying is just the general
24 understanding, right? So 103 could be defining,
25 for example, nonobviousness, right? So if you are

1 not obvious, then, sure, you can go ahead and
2 establish your patent or your claim, right?

3 What I'm just saying is that, in
4 general, right, so especially in view of the -- we
5 call it the POSITA. I think that's P-O-S-I-T-A.
6 POSITA, right? So in view of the POSITA, right,
7 whether you would render, you know, obvious, you
8 know, can be combination, for example, right? So
9 that's, you know, some of the grounds that I --
10 actually, all of the grounds here, right? So you
11 can see that I used two reference and sometimes
12 three references, right?

13 So whether the POSITA would consider that
14 as obvious, you know, then, you know, by law then
15 you can now patent your claim or part of the claim,
16 things of that nature.

17 Q. Dr. Chen, you said Section 103 can be
18 defining, for example, nonobviousness.

19 Can Section 103 be defining any other
20 basis for invalidity besides nonobviousness in your
21 opinion?

22 A. Counsel, you know, I don't want to just
23 refer on the memory or anything like that. You
24 know, again, you know, all the rules, you know,
25 everybody, including POSITA, you know, how, you

1 know, legalness of obviousness, I rely on that
2 Appendix 4.

3 In fact, you know, Counsel, in page 178,
4 you know, there's a section, you know, a few
5 things that I understand when I form my opinions,
6 you know, throughout the report. There's a legal
7 standard for obviousness, right? So that's --
8 you know, the whole section, you know, inform me,
9 you know, the basis, right? Just so that I can
10 look at the prior art and look at the claim and
11 see whether that's obvious or not obvious, you
12 know.

13 So things in that nature. And that's,
14 again -- it is a long document in Appendix 4,
15 but if there is a section, you know, Counsel, you
16 are interested in, you know, I can, you know, go
17 and take a look, you know, and we can discuss over
18 it.

19 Q. Well, sir, I'm just looking at the
20 answer you gave me a minute ago. You said
21 "Section 103 can be defining, for example,
22 nonobviousness."

23 What else can Section 103 define besides
24 nonobviousness in your opinion?

25 A. Counsel, as I said, I don't have a

1 complete memory of, you know, all of the details,
2 you know. It can be 103, 104, whatever. It
3 doesn't matter. It's a number.

4 What I'm saying is that, you know, those
5 relevant legal standards that I need to rely on to
6 offer my opinions are documented in Appendix 4,
7 including, you know, Counsel, if you're interested
8 in this obviousness or even POSITA, right, because
9 discussions, I think they are all in Appendix 4 of
10 my conclusion report.

11 Q. All right. So, Dr. Chen, maybe we can
12 get a little bit more detailed just to make sure
13 we're on the same page here with respect to these
14 individual grounds.

15 Actually, before we do that, let me go
16 back to a question I asked you a little while ago
17 now.

18 Are you offering any opinions in your
19 declaration regarding invalidity based on
20 anticipation?

21 And, Dr. Chen, let me see if I can
22 make this easier for you. I'll withdraw that
23 question.

24 Look at your legal section. I'll help
25 you walk through your own legal section.

1 A. Sure. I'm just reading my legal
2 section.

3 Q. Let's do that. Let's look at your legal
4 section.

5 A. Mm-hmm.

6 Q. And in your legal section at page 176,
7 you have a section on "Anticipation and Prior
8 Art."

9 Do you see that?

10 A. I do see that, Counsel.

11 Q. In that first sentence you include in
12 your legal section, you say "I understand that
13 Section 102 specifies when a challenged claim is
14 invalid for lacking novelty over the prior art,
15 and that this concept is also known as
16 'anticipation. '"

17 Do you see that?

18 A. I see that, Counsel.

19 Q. Okay. So does that help you understand
20 what I mean by "anticipation"?

21 A. Counsel, yeah, I think this one is what
22 it says, right? 102 specifies what's in here is
23 invalid for lacking novelty over the prior art
24 and that this concept is also known as
25 anticipation.

1 Q. Okay. And that table at paragraph 32
2 summarizing your invalidity grounds, you
3 identified the statutory basis as Section 103, not
4 102. Is that correct?

5 A. That is correct. In that table,
6 correct.

7 Q. So am I right that you are not offering
8 any opinions regarding invalidity based on
9 anticipation in this proceeding? Correct?

10 A. Right, I do not use that particular 102,
11 you know, in those grounds that I offer here.

12 Q. Okay. So, now, let's look at each
13 ground in more detail. But before we do that,
14 should we break and check on lunch for you,
15 Dr. Chen, or should we keep going?

16 A. Yeah, it's 12:10. Would you mind, I
17 just go take a quick look to see if lunch is
18 here?

19 MR. TIPESCU: Sure. Let's go
20 off the record for just a minute and
21 Dr. Chen can check.

22 (Whereupon, a luncheon recess
23 is taken.)
24
25

1 A F T E R N O O N S E S S I O N

2 BY MR. TIPESCU:

3 Q. All right, Dr. Chen. Welcome back from
4 lunch.

5 A. Thank you.

6 Q. We were discussing before lunch the
7 basis for your -- generally the basis for your
8 opinions for Grounds 1 through 5, and I want to
9 focus now, as I said right before we broke for
10 lunch, more specifically on some of the individual
11 grounds. Is that okay?

12 A. Sounds like a plan.

13 Q. All right. So let's start with Ground
14 1. All right. So Ground 1, if you want to
15 turn -- we may already be there. Let's take a
16 look at paragraph 33 of your declaration. That is
17 the beginning of the section of your analysis for
18 Ground 1, correct?

19 A. That is correct, yeah. That is
20 paragraph 33.

21 Q. Okay. And the basis on which you're
22 relying -- well, let me rephrase that.

23 Am I correct that you are relying on the
24 teachings of Berke and Cornelius for Ground 1?

25 A. Counsel, I'm using Berke and Cornelius

1 both, that is correct.

2 Q. All right. So under Ground 1, you are
3 opining as to Claims 1, 3, 4, 6 to 8, 10, 11, 13
4 to 17, and 19. Is that right?

5 A. Counsel, I do use that to read 1, 3, 4,
6 6 to 8, 10, 11, 13 to 17, and 19. I think that is
7 correct.

8 Q. Okay. And it is the combination of
9 Berke and Cornelius that forms the basis of your
10 opinions for each of these claims identified under
11 Ground 1, correct?

12 A. Counsel, I applied Ground 1, you know,
13 for all those claims as mentioned before. And, in
14 fact, you know, I do provide an explanation,
15 right, for each -- under each claim and subclaim
16 and all that. But, in general, it is correct. I
17 use Ground 1 to apply to those claims that we went
18 over.

19 Q. I'm not asking -- I know you agree as to
20 the claims, but my question was -- maybe you
21 didn't hear me correctly, so let me reask my
22 question.

23 A. Mm-hmm.

24 Q. It is the combination of Berke and
25 Cornelius that forms the basis of your opinions

1 for each of these claims identified under Ground
2 1, correct?

3 A. So, Counsel, I overall used -- for
4 Ground 1, I do use the Berke and Cornelius in
5 combination, right, for all those claims.
6 However, you know, I look at individual claim,
7 right? So I think if that's what you are asking,
8 you know, some of the claim, you know, I could use
9 just one of the references, you know, to provide
10 my explanations and some of them, of course, I use
11 the exact combination.

12 So I'm not sure, Counsel. You want to
13 kind of go over it one by one and see which one I
14 used what and which component I used which
15 references? You know, if that's what you wish,
16 I'd be happy to go over them one by one.

17 Q. All right, Dr. Chen. Let me first take
18 you to paragraph 33 in your report -- of your
19 declaration, I'm sorry. You say in that first
20 sentence, "It is my opinion that a POSITA would
21 have found Claims 1, 3, 4, 6 to 8, 10, 11, 13 to
22 17, and 19 obvious based on the combination of
23 Berke and Cornelius."

24 Do you see that?

25 A. Counsel, I do see that.

1 Q. Okay. You don't mention any opinions as
2 to these claims based on just Berke or Cornelius
3 alone, do you?

4 A. The whole -- Counsel, the whole sentence
5 here is to say that collectively, right? So 1, 3,
6 and so on and so forth, right, the ones that we
7 just went through, all those, you know, I do use
8 the combination of the Berke and Cornelius.

9 All I was saying earlier is that there
10 was a portion of this collection of the claims, you
11 know, I may use just one of them, you know, just
12 for the teaching, right? That's already, you know,
13 satisfied the claims teaching, in my opinion, and
14 that's all I was saying. But it is true,
15 collectively all this, you know, 1, 3, 4, 6 to 8,
16 10, 11, 13 to 17, and 19, collectively they are
17 based on the combination of Berke and Cornelius.

18 Q. Dr. Chen, you don't look at claims
19 collectively. You look at claims individually
20 to assess whether or not they're invalid,
21 correct?

22 A. Correct. And -- correct. So, Counsel,
23 that's why earlier I was saying that, you know,
24 I'd be happy to go through one by one, right, and
25 then we can go through my reports and I can let

1 you know my opinions --

2 Q. Sir, I'm not going to do that,
3 necessarily, because I think --

4 MR. QIU: Counsel, I think you
5 should let the witness finish his answer.

6 MR. TIPESCU: I'll let him
7 finish, but this is a little bit
8 frustrating at this point. Because I
9 asked Dr. Chen a minute ago to confirm
10 that the only opinions that he has
11 provided in this report are under Section
12 103 for obviousness with respect to each
13 of these grounds and he said yes. Now
14 I'm hearing Dr. Chen tell me that he's
15 got opinions for some of these claims
16 based on a single ref -- based on just
17 one reference.

18 BY MR. TIPESCU:

19 Q. Are you saying, Dr. Chen, that you're
20 offering opinions as to any of these claims under
21 Ground 1 based on anticipation?

22 A. Counsel, I do not -- I don't think I
23 made that statement here, right? All I was
24 saying, just that, you know, if you look into my
25 report, each claim, you know, has the teaching,

1 right? Or even a subpart of the claim, the
2 teaching. So I would use -- I could use, for
3 example, Berke, right, to explain, you know, why I
4 think that a POSITA would consider that to satisfy
5 the particular component, right? So I think that
6 was my message earlier, right?

7 Of course, you know, we kind of went
8 through that before the lunch, right? So it is
9 103 I do use the combination for those claims. So
10 that's still correct.

11 Q. So to be clear, Dr. Chen, you are not
12 offering any opinions that any of the individual
13 claims 1, 3, 4, 6 to 8, 10, 11, 13 to 17, and 19
14 are anticipated by Berke, are you?

15 A. Well, Counsel, I went over these
16 sections among those claims. You know, I do not
17 say that, you know, Berke anticipates particular
18 claims. And, like I said, all I would point out
19 is just that, you know, some of this teaching, you
20 know, this component, you know, was covered by,
21 you know, one of the references; in this case
22 Berke. You know, as you can actually see from my
23 report, especially, you know, Claim 1, you know,
24 what I just went over, right, I think we can see
25 Berke's teaching, you know, all over the place.

1 Q. All right. So if I understand you
2 correctly, you're saying that for each of the
3 claims where you apply the combination of Berke
4 and Cornelius on Ground 1, some of the teachings
5 may come from Berke and some of the teachings may
6 come from Cornelius, correct?

7 A. For some of the claim, that is true.
8 That is true.

9 Q. Okay. But for each of these claims
10 that you identified under Ground 1, your ultimate
11 basis for why you believe a claim is invalid rests
12 on the combination of Berke and Cornelius,
13 correct?

14 A. That is consistent with what I provide
15 in the report. That is part of that collection of
16 the claims and that was based on the combination
17 of the Berke and Cornelius.

18 Q. Okay. Let me ask you a little bit now
19 about Berke itself. Okay?

20 A. Sure.

21 Q. And let me put into the chat, although I
22 think you have a copy of this in your binder, a
23 copy of Berke. This is Exhibit 1004.

24 So you should have it up in the chat now,
25 but feel free to refer to the copy in your binder as

1 well.

2 A. Sure, Counsel. I do see the file in the
3 chat. I'm trying to download first. Counsel, I
4 have it.

5 Q. Okay. So let me ask you to turn to
6 paragraph 30 of Berke.

7 A. Counsel, I see paragraph 30 of Berke.

8 Q. Okay. And right there in the beginning
9 of the paragraph, this is where Berke tells us
10 that "the transmitter 118 and receiver 120 include
11 respective equalization coefficient whitelists 116
12 and 144."

13 Do you see that?

14 A. Counsel, I see that.

15 Q. Okay. And Berke also tells us in this
16 paragraph that the whitelisted coefficients are
17 known to provide robust eye height or eye width,
18 correct?

19 A. Counsel, yes, I do see that passage. I
20 think you might have referred to one of the
21 sentences saying that "In a particular embodiment,
22 certain equalization coefficient settings or
23 combinations of equalization coefficient settings
24 are known to produce one or more of a particularly
25 robust eye height or eye width." I see that,

1 Counsel.

2 Q. Okay. Are robust eye height and eye
3 width a measure of robust performance?

4 A. Sorry, Counsel. Can you please repeat
5 your question?

6 Q. Sure.
7 Are robust eye height or eye width a
8 measure of robust performance?

9 A. So, Counsel, you know, regarding this
10 robust eye height or eye width, I did offer my
11 opinions in my report. If you can please go to,
12 for example, paragraph 140, it explains "In Berke,
13 for a set of pre-equalizer coefficients to be
14 added to the whitelist, they must be of high
15 performance (for example, robust eye height or eye
16 width, low BER) and fit a set of channel
17 characteristics of a channel model so as to
18 compensate for channel loss/distortion." And
19 "Berke teaches that 'insertion loss and other
20 single degradations of transmission channel' are
21 among the characteristics that have an impact on
22 the performance and can be considered as part of
23 the channel model."

24 So, Counsel, as you can see here, you
25 know, the opinion I was offering here is that, you

1 know, robust in eye height, eye width, I referred
2 to a high performance. So it means that it is
3 linked in this high performance mode. You know,
4 you wouldn't be looking at some messy eye. That's
5 usually what a POSITA would consider, right?
6 Usually a way, you know, how we evaluate, you
7 know, the health or the performance of this link.
8 And then I think this is consistent to what, you
9 know, Berke was saying here, you know, an eye
10 being robust means that's good.

11 Q. And so because of this correlation
12 between robust eye height or eye width and robust
13 performance, it is your opinion that the
14 whitelisted coefficients are known to provide
15 robust performance, correct?

16 A. Counsel, let me clarify it.
17 What here -- what I think Berke is referring to is
18 that, you know, if you find some coefficient,
19 right, and then here with a pre-equalizer
20 coefficient, you may imagine not all the
21 coefficients is going to work out, right? So you
22 come up, you know, I don't know millions of
23 different combinations. So some of them, you
24 know, you do not even see the eye. You see the
25 eye. Usually the POSITA has it as "eye closed,"

1 for example. That is not a good coefficient,
2 right?

3 So that, you know -- really in reality,
4 that, you know, we would not consider that, you
5 know, because why do you build a link that has
6 such a bad performance?

7 So what Berke teaches here is what he
8 said. You know, certain equalization, you know,
9 coefficient, you know, settings or combination of
10 the settings are known to produce one or more of a
11 particularly robust eye height, right? So it just
12 means that, you know, there would be those
13 sightings that, you know, would yield a very
14 robust, you know-- sorry, take out the "very" --
15 would yield robust eye heights or eye width.
16 And I think that's what Berke is saying here,
17 right?

18 Q. Yeah, I know that's what Berke is saying
19 there, but I'm asking your opinion because I
20 believe Berke puts these coefficients that provide
21 robust eye height or eye width into the whitelist
22 as a starting point for the equalizer training
23 process.

24 So Berke will put into its whitelists
25 those coefficients that are known to provide robust

1 performance, correct?

2 A. Counsel, actually, I think related to
3 your question, and also what I provide information
4 here in 140, they must yield high performance.
5 For example, the ones that we talked about, robust
6 eye height or eye width, and fit a set of channel
7 characteristics, right, of a channel model.

8 So what it says is that, you know, all
9 those coefficients, right, you know, so you can
10 probably imagine -- it's hard to imagine you have
11 a single coefficient that just works with all
12 kinds of channel characteristics, right?

13 So this robust, you know, eye height or
14 eye width, you know, those refer to, you know, a
15 certain set of those coefficients, right, that
16 would fit for particular channel characteristics,
17 right? So it can be a particular, you know, cable
18 that you're using, right, or particular PCB trays.
19 And then, yeah, you know, some of those, you know,
20 would yield a high performance. In this case
21 would be robust, you know, eye height or eye
22 width.

23 And that's not only Berke but also what
24 POSITA would understand, right? Because, you know,
25 it's hard to imagine just one coefficient and then

1 just, you know, you can magically fit for all kinds
2 of channel characteristics, right?

3 So they are, you know, designed, right,
4 or you need to kind of jointly consider, right?
5 So that's -- that's what we -- "we" means
6 POSITA -- do that as a practice.

7 Q. Dr. Chen, I appreciate that explanation,
8 but Berke just tells us that the coefficients are
9 known to produce one or more of a particularly
10 robust eye height or eye width. It doesn't say
11 anything about for a channel characteristic in
12 paragraph 30, does it?

13 A. So, Counsel, in this part, the paragraph
14 30 that we just examined together, right, in
15 Berke, here I just search, you know. I do not,
16 indeed, find these exact words of "channel
17 characteristic," these two words. Okay.

18 However, I'm sorry, I would like to point
19 out, you know, first, this paragraph does point out
20 the serial channel 100, and then a POSITA looking
21 at this would understand, okay, so you took up some
22 channel. And equally important, if not even more
23 important, is that a POSITA understood or
24 understands why I'm even trying to come up with
25 this pre-equalizer and the coefficient. Oh, yeah,

1 I need this, you know, because I need to compensate
2 for the channel, particular loss, and things like
3 that, right?

4 So there are understandable, right, and
5 POSITA, you know, you are in the field, you would
6 just think about it and say, yeah, what's the
7 whole purpose of doing equalizer? Okay? It is,
8 you know, to, you know, compensate for the, you
9 know, channel character -- the channel and,
10 hence, the channel characteristic that this
11 equalizer is supposed to drive, right, to go out,
12 to transmit.

13 So, yeah, so I think, you know, POSITA
14 would look at this, you know, even though you're
15 right, you know, this passage does not -- this
16 paragraph -- sorry, let me be clear. This
17 paragraph 30 does not specifically mention about
18 channel characteristic is to work together.
19 However, you know, a POSITA would look at this and
20 understands that, yeah, your coefficients, you
21 know, would be tight with the following channel
22 characteristics, which is that channel 100.

23 Q. Okay. So let me point you to a -- let's
24 follow up on this notion of channel loss because
25 you mentioned channel loss in your answer a minute

1 ago. Let me take you to a spot in your
2 declaration that actually relates to Claim 1 of
3 the '111 patent in your analysis for round one.
4 And that's paragraph 53. Can you turn to
5 paragraph 53?

6 A. Sure.

7 Q. Let me know when you're there.

8 A. Counsel, yeah, I'm there.

9 Q. Okay. All right. I asked you a minute
10 ago if Berke's whitelisted coefficients are known
11 to provide robust performance. And, in fact, you
12 state here, in the second sentence of paragraph
13 153 (sic) that "Berke stores sets of pre-equalizer
14 coefficients that are known to provide robust
15 performance for respective channel
16 characteristics, so that one of them can be
17 selected to serve as a good starting point for the
18 equalizer training process."

19 Do you see that?

20 A. Counsel, I do see that.

21 Q. Okay. The sets of pre-equalizer
22 coefficients that are being stored that you
23 referred to in this sentence are the ones that are
24 stored in the whitelists of Berke, right?

25 A. In the context of the Berke, the

1 whitelist is where they store those coefficients,
2 correct.

3 Q. Okay. And so the whitelisted
4 coefficients are -- well, let me rephrase that.

5 Berke's whitelisted coefficients provide
6 robust performance by compensating for channel
7 loss. Isn't that right?

8 A. Counsel, I do see that sentence: "The
9 whitelist registers contain coefficients used to
10 compensate for channel loss."

11 Sorry, I'll try to slow down.

12 Q. Okay. So then you agree with me that
13 Berke's whitelisted coefficients provide robust
14 performance by compensating for channel loss,
15 right?

16 A. So let me just -- let me quote the same
17 paragraph, Counsel. You know, here I say that
18 "Berke stores sets of pre-equalizer coefficients
19 that are known to provide robust performance for
20 respective channel characteristics, so that one of
21 them can be selected to serve as a good starting
22 point for the equalizer training process."

23 So the reason why I would like to draw
24 your attention to here is because that respective
25 channel characteristics are important. I kind of

1 mentioned this before. There's no one coefficient
2 that can compensate for all kinds of channel
3 characteristics. Okay? Typically, what POSITA
4 will do is that, okay, so there's particular
5 channel characteristics. Okay. Counsel, you talk
6 about certain channel loss, right? So it is one
7 major that POSITA would understand about this
8 channel characteristics, right? Okay. So how
9 much loss? Okay. Maybe you have 10 dB loss, 20
10 dB loss. So different amount of the loss, you
11 know, would correspond to different coefficient
12 values, right?

13 So what Berke is teaching us here is,
14 okay, you have a set, right? You have a set of
15 those coefficients and then you can, you know,
16 provide a robust performance for a respective,
17 right, respective, you know, channel
18 characteristics, right?

19 So maybe this particular set is really
20 good for -- just use the example I just mentioned,
21 Counsel, you know. Let's say 10 dB loss for your
22 channel. Yeah, so, you know, Berke, you know,
23 you're going to find -- you pick one of them. In
24 this case, I don't know, let's make up a number.
25 Coefficient set number 5. Okay. So number 5 set

1 of that coefficient would be good for this
2 insertion loss of 10 dB, right?

3 So that's just one example, you know, to
4 explain, you know, how POSITA actually would
5 understand and that's actually consistent to what
6 Berke is teaching here.

7 Q. So for any given set of whitelisted
8 coefficients in Berke, that set would provide
9 robust performance by compensating for channel
10 loss, right?

11 A. Again, Counsel, that particular -- so
12 let's say that number 5. Okay? So number 5 set
13 of that coefficient using the example I gave -- I
14 offered earlier. So, yeah, this is known for
15 compensating for channel loss of 10 dB. So in
16 that case, right, so you are compensating the
17 channel loss of that 10 dB, right?

18 So it is important, Counsel, here, we
19 need to -- POSITA, you know, would understand that,
20 you know, this is co-designed. Okay? So that
21 co-design is very critical here. This set of the
22 coefficient, like this number 5, would be really
23 good for that channel loss of 10 dB. Why?
24 Because, you know, it's going to give you a robust,
25 you know, with -- eye height, you know, eye width,

1 as the components.

2 Q. So, Dr. Chen, I think we're saying the
3 same thing. In your example, that coefficient
4 set, whitelisted coefficient set number 5, would
5 provide robust performance by compensating for
6 channel loss, right?

7 A. For the channel loss of that respective
8 channel characteristics, right? So I just want
9 to, you know, emphasize the importance of that,
10 you know. Because as I said, the reason, as I
11 mentioned earlier, a POSITA would understand, you
12 know, that coefficient is not so magical that, you
13 know, all kinds of channel characteristics in the
14 world, you know, this can magically, you know,
15 compensate, right?

16 So it is really important, you know, for
17 POSITA and also for Berke, right? Berke, you
18 know, says similar thing, right? To identify
19 that, yeah, you know, particularly for that
20 particular type of, you know, channel
21 characteristics and under that, you know, then,
22 yeah, you compensate for that channel loss of that
23 respective channel characteristic.

24 Q. Okay. And I'm trying to understand,
25 Dr. Chen, why you are inserting for respective

1 channel characteristics in every answer when, for
2 example, paragraph 30 of Berke that we looked at
3 didn't say that. And I think I understand
4 because, as you say in the last paragraph of 53,
5 "As a POSITA would have understood, variations in
6 channel loss or distortion arise from differences
7 in channel characteristics..."

8 Do you see that?

9 A. Counsel, are you reading from towards
10 the end of paragraph 53?

11 Q. The last sentence in paragraph 53, yes.
12 Do you see that?

13 A. Correct, yes. I see that. I see that,
14 yes. Thank you.

15 Q. Okay. So the variations in channel loss
16 in your opinion that are being compensated for by
17 the whitelisted coefficients arise from
18 differences in channel characteristics, correct?

19 A. So this is what I said here in the
20 report: "Variations in channel loss or distortion
21 arise from differences in channel
22 characteristics."

23 Q. Okay. And is it your opinion then that
24 the whitelisted coefficients that are compensating
25 for channel loss which is arising from the

1 differences in channel characteristics, that those
2 coefficients are, therefore, based on channel
3 characteristics because the losses arise from the
4 channel characteristics? Is that correct?

5 A. So, Counsel, let's rewind a little bit,
6 right? So certain characteristics will have
7 associated, you know, a channel loss, right?
8 Using the example I mentioned earlier, it can be,
9 I don't know, 10 dB loss, can be 20 dB loss, and
10 things like that. What I raise here in this
11 paragraph, right?

12 So what I recognize is that, you know,
13 there are variations in channel loss. Okay? So 10
14 dB, 20 dB, sometimes even 30 dB, 40 dB, I don't
15 know, right? So differences. So those arises from
16 differences, right, in channel characteristics, as
17 we just discussed.

18 Where -- so this is an important thing,
19 right? So where different channel characteristics
20 correspond to different channel model, right, so
21 what -- the message here is to emphasize that,
22 yeah, because they are different, you know, they
23 are different types. You know, you can imagine,
24 you know, the cable is sometimes long, sometimes
25 is short, right? So they all correspond to

1 different losses, okay, or different channel
2 characteristics.

3 So you want different coefficient,
4 right? So you have different sets, right, using
5 the example that we talked about, right? So
6 whitelist has different set. So that's why you
7 want a different set of those coefficients and
8 each one is corresponding to a different
9 channel, channel model, right, the channel
10 characteristics.

11 So that's -- Counsel, I just want to
12 make sure that's clear, you know, that that's what
13 I said here in this passage and that's the opinion
14 that I offer here.

15 Q. Well, you're talking about this passage,
16 but I'm asking also just about your opinion in
17 general, whether it's in this passage or
18 otherwise, but I just want to make sure I
19 understand.

20 Is it your opinion that Berke's
21 whitelisted coefficients compensate for very -- for
22 variations in channel loss which arise from
23 differences in channel characteristics and,
24 therefore, the whitelisted coefficients are, in
25 fact, based on different channel characteristics?

1 A. Counsel, first, I do want to clarify. I
2 provide this passage, 53, and, hence, it is my
3 opinion. It was my opinion when I was writing.
4 It is still my opinion right now sitting here.
5 Okay. So that's the first thing I want to
6 clarify.

7 Second thing, you know, I think it's
8 pretty clear, you know, as stated in here, that
9 variation we talk about, okay, variation in the
10 channel loss or distortions, arise from
11 differences, right, in channel characteristics.
12 And I even, you know, provide a further example,
13 right? You know, for example, you're talking
14 about short cable, medium-length cable, long
15 cable, right? So there are differences, right?
16 So there are differences in -- in that.

17 What that does is that, you know, it
18 will lead to different channel characteristics,
19 right? So -- and that's why, you know, you have
20 different, you know, channel losses and that's why
21 you have a different set of those coefficients.
22 Okay?

23 And the importance here, again, you
24 know, as I mentioned before, the importance here
25 is that, you know, each of that set of

1 coefficients will have a corresponding channel
2 model, right? In this case, you know, it can be a
3 long channel model, can be a short channel model,
4 you know, things of that nature. And that,
5 Counsel, is the message that I'm trying to convey
6 and that's also consistent with that entire
7 paragraph that I was providing in my declaration.

8 Q. All right. Dr. Chen, I think I have
9 what I need on that. Let's move on and let's take
10 a look at Ground 2, which is -- which starts at
11 paragraph 106 of your declaration.

12 Can you turn to paragraph 106 for me,
13 please?

14 A. Counsel, I'm at paragraph 106 of my
15 declaration.

16 Q. Okay. And just like we talked about
17 with respect to Ground 1, I want to make sure I
18 understand the exact basis for your opinions as to
19 the claims identified here in connection with
20 Ground 2.

21 And so my question to you is, am I
22 correct that it is the combination of Berke and Ran
23 that form the basis of your opinions for each of
24 the claims identified under Ground 2?

25 A. Counsel, it is my opinion that these

1 claims, the ones that we just went over, is
2 obvious based on the combination of Berke and
3 Ran.

4 Q. There's no other basis on which you rely
5 for your opinions in Ground 2 other than the
6 combination of Berke and Cornelius, correct?

7 A. Counsel, here, Ground 2, this is Berke
8 and Ran.

9 Q. I'm sorry. So let me rephrase my
10 question if I misspoke.

11 So there's no other basis on which you
12 rely for your opinions in Ground 2 other than the
13 combination of Berke and Ran, correct?

14 A. For Ground 2 I used Berke and Ran, that
15 is correct.

16 Q. And that's the only combination —
17 that's the only basis that you provide, correct?

18 A. That's the basis I provide for Ground
19 2.

20 Q. Okay. All right. Let me now take you
21 to Ground 5 and that begins at paragraph 154 of
22 your declaration. If you could turn to that,
23 please.

24 A. All right, Counsel. I'm at paragraph
25 154 of my declaration.

1 Q. And the only basis on which you rely for
2 each of the Claims 1 through 19 under Ground 5 is
3 a combination of Ran, Mejia, and Stauffer,
4 correct?

5 A. Counsel, as I had mentioned here, "It is
6 my opinion that a POSITA would have found Claims 1
7 through 19 obvious based on the teachings of Ran,
8 Mejia, and Stauffer," so, correct.

9 Q. Let me ask you about Mejia for a second,
10 Dr. Chen. And let me try to make this a little
11 easier. Let me start with what you already said
12 about Mejia in your declaration. So if you
13 wouldn't mind, let's turn to your analysis of
14 Claim 1 under Ground 5 and let's see what you
15 have to say with respect to Mejia for Claim 1,
16 Ground 5.

17 So let me ask you to turn to paragraph 165
18 of your declaration.

19 A. Okay, Counsel. I'm at paragraph 165 of
20 my declaration.

21 Q. Okay. All right. Perfect.

22 And before I ask you about this, let me
23 upload Exhibit 1009, which is Mejia or Mejia, into
24 the chat window so that you can refer to it as we
25 go through this. Let me know when you've received

1 Exhibit 1009, a copy of Mejia. And, again, feel
2 free to refer to the electronic copy or the one in
3 your binder.

4 A. I do see that in the chat window and I'm
5 downloading it. Counsel, I have that downloaded,
6 that copy. Thank you.

7 Q. So we won't look at it quite yet. Let
8 me take you back to paragraph 165 of your
9 declaration. It says there it is your
10 understanding that "Mejia teaches a 'preset
11 search' technique for selecting the initial
12 pre-equalizer coefficient values from multiple
13 sets of initial pre-equalizer coefficient
14 values."

15 Do you see that?

16 A. Counsel, I do see that and that's what I
17 provide in paragraph 165.

18 Q. Okay. And as part of this preset search
19 technique for selecting the initial pre-equalizer
20 coefficient values, Mejia selects a best or
21 optimal equalization preset, does it not? And if
22 it helps, Dr. Chen, I'm looking at paragraph 167
23 of your report -- of your declaration.

24 A. Okay. Yeah. I was just about to get
25 there, yeah.

1 So, Counsel, paragraph 164 (sic), here I
2 point out "Mejia teaches selecting or specifying a
3 set of pre-equalizer coefficients from among
4 multiple sets. Mejia's preset search technique is
5 'provided to evaluate the system performance at
6 different recommended equalization preset values
7 and select the best equalization preset for the
8 given system.' The preset search is 'designed to
9 calculate/determine and compare the margin
10 associated with different equalization presets' to
11 select the best reset or 'recommend the best
12 equalization preset values based on information
13 such as gain, jitter and equalization controls,
14 which can be obtained from the RX (receiver)
15 circuits.' Preset search also evaluates the
16 presets for their bit error ratio (BER). ('Preset
17 search flow will guarantee target BER by selecting
18 the best preset on those boards; B, the flow
19 reduces the risk of having OEM configuring the
20 system to a wrong preset.') (Generally the presets
21 should at least guarantee a bit error rate (BER) of
22 ten to the power of minus 4. The subsequent
23 equalization process aims to take the link to a BER
24 less than ten to the power of minus 12. "

25 So, Counsel, I see that, you know, this

1 is what I described about Mejia's preset search
2 technique.

3 Q. Thank you, Dr. Chen. I thought my
4 question was a lot simpler than that, but that's
5 fine. You read your paragraph into the record and
6 that's okay.

7 Let's look at paragraph 31 of Mejia if
8 you don't mind. Let me know when you're there.

9 A. Sure. I'm just looking at the hard copy
10 because my eyes read a little bit better than
11 looking at the screen. I'm at paragraph 31,
12 Counsel.

13 Q. Okay. Bear with me.

14 And in paragraph 31, Mejia tells us
15 that -- and I believe this is part of what you
16 cited for your report -- that it evaluates the
17 system performance at different recommended
18 equalization preset values and selects the best
19 equalization preset for the given system.

20 Do you see that?

21 A. Counsel, I do see that first sentence of
22 paragraph 31 of Mejia.

23 Q. And then Mejia tells us in that
24 paragraph that "the preset search may be performed
25 that is designed to calculate or determine and

1 compare the margins associated with different
2 equalization presets for PCIe, for example, at 8.0
3 GT per second or higher. "

4 Do you see that?

5 A. Counsel, I do see that passage.

6 Q. Okay. Is it your understanding that
7 Mejia selects the preset with the highest margins
8 as the optimal preset?

9 MR. QIU: Counsel, I just
10 wanted to mention that this has been
11 going for more than an hour. So if
12 there's a good stopping point, let's take
13 a break.

14 MR. TIPESCU: Sure. Let's see
15 how this goes and a few more questions
16 and we'll take a break.

17 A. Counsel, yeah, this paragraph 31, Mejia
18 teaches about in this embodiment that flowchart
19 that they provide in that Figure 3 will evaluate
20 the system performance at different recommended
21 equalization preset values and select the best
22 equalization preset for the given system, and that
23 is consistent to how I quote and interpret, you
24 know, in my report, particularly in that paragraph
25 167.

1 Q. And that may very well be, Dr. Chen, but
2 the one thing you did not do in your answer is
3 address my question regarding margins. So you
4 never mentioned margins in your answer, so let me
5 ask my question again.

6 Is it your understanding that Mejia
7 selects the preset with the highest margin as the
8 optimum preset?

9 A. Well, Counsel, you know, I just read
10 this Mejia passage and it says that, you know,
11 this compares the margin associated with different
12 equalization presets. This was provided by this,
13 for example, right? So I think what Mejia is
14 providing here is one example of that. You know,
15 you can, you know, just compare the margins,
16 right? And margin is one of the ways that POSITA
17 used to evaluate the performance, just like, you
18 know, similarly I think we discussed a few
19 minutes ago, I don't know, half an hour ago to
20 about the eye height, right, eye width, you know.
21 So that's just, you know, ways of, you know,
22 evaluating performance.

23 And I think in this example, Mejia just
24 basically says that you can compare the margins of
25 those and then that's how you can, you know, pick

1 the best preset values. And you know, it's --

2 Q. I'm sorry, Dr. Chen. Continue.

3 A. Okay. And then, you know, in fact,
4 you know, at the end, you know, Mejia further
5 provides other embodiment, right? Some other
6 embodiment may also recommend the best preset
7 value based on information, let's say, from the
8 receiver circuit.

9 So I think what Mejia provides here, you
10 know, is not just on the one particular approach,
11 right? There are a few, you know, including
12 margin, right, and that's being one approach, and
13 then uses the other, you know, embodiments right
14 there.

15 Q. So, Dr. Chen, you talked about eye
16 heights, eye widths from our discussion of other
17 references previously, but Mejia does not talk
18 about eye height or eye width anywhere. I'll
19 represent that to you. So I want to stick with
20 Mejia and what it teaches, not what the references
21 we talked about previously teach.

22 With respect to Mejia, does Mejia
23 disclose selecting the best equalization value --
24 I'm sorry, selecting the best equalization preset
25 based on any other measure beyond a margin?

1 A. Counsel, that's kind of what I point out
2 in the last sentence of that paragraph, right? He
3 said that, you know, "some embodiments may also
4 recommend the best equalization preset value based
5 on information from the RX receive circuits."

6 So that's, you know, Mejia talk about
7 there are other measures. In this case, you know,
8 you can see that on the receive, you know,
9 circuits, right? So, you know, some of the
10 signal, you can prove over there. You can
11 measure essentially the system performance.

12 So that's the can key, right? Any
13 measure that would allow you to understand and
14 value the system performance will assist, help,
15 right, you know, Mejia's preset search. And it is
16 actually consistent with what POSITA's
17 understanding how, you know, you would evaluate the
18 system performance, right?

19 I know, Counsel, you're right, that
20 earlier discussion of eye height/eye width was
21 from another reference, that is correct. But I
22 also want to point out, in general, that's what
23 POSITA would understand. You know, those are --
24 there are a few things that you can do, you know,
25 for you to gauge, right, the system performance.

1 And in this case, you know, you try to find the
2 best, you know, preset settings, right, that will
3 work out, you know, for this application.

4 Q. So is it your understanding that if a
5 preset setting or equalization coefficient is
6 found to provide high performance or robust
7 performance for certain channel characteristics,
8 then that coefficient would correspond to a
9 different channel model that represents those
10 channel characteristics?

11 A. Counsel, I think what we are discussing
12 here is what Mejia was -- the preset, you know,
13 how the -- sorry, what does he call it? Sorry,
14 preset search technique, right? So in this
15 context that we discuss, you know, how Mejia
16 teaches, you know, how you may evaluate the system
17 performance and select the best equalization, you
18 know, preset.

19 However, Counsel, you used -- the
20 question seems to kind of go back to channel
21 model? Is that what you are referring to? If
22 that's the channel model, then we would have to go
23 back, you know, to see what -- you know, the
24 section that I specifically talk about the channel
25 model.

1 Q. Okay. Let's take a break and come back
2 in five or ten minutes. Is that okay?

3 A. Sounds good.

4 (Whereupon, a recess is
5 taken.)

6 MR. TIPESCU: All right.

7 Dr. Chen, thank you. I have no more
8 questions for you at this moment.

9 I pass the witness.

10 MR. QIU: The petitioner does
11 not have redirect.

12 MR. TIPESCU: All right. Then
13 I think that is all for today. Thank
14 you, Dr. Chen.

15 THE WITNESS: Thank you.

16 (Whereupon, the deposition
17 concluded at 2:34 p.m. PT.)

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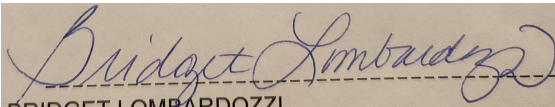
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1 REPORTER'S CERTIFICATION

2
3 I hereby certify that the witness in the
4 foregoing deposition, DR. MICHAEL CHEN, was remotely duly
5 sworn by me to testify to the truth, the whole truth and
6 nothing but the truth, in the within-entitled cause; that
7 said deposition was taken at the time and place herein
8 named; and that the deposition is a true record of the
9 witness's testimony as reported by me, a duly certified
10 shorthand reporter and a disinterested person, and was
11 thereafter transcribed into typewriting by computer.

12 I further certify that I am not interested in
13 the outcome of the said action, nor connected with nor
14 related to any of the parties in said action, nor to their
15 respective counsel.

16 IN WITNESS WHEREOF, I have hereunto set my hand
17 this 11th day of May 2026.
18

19
20 
21 BRIDGET LOMBARDOZZI,
22 Certified Shorthand Reporter
23 Certified Realtime Reporter
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1 DEPOSITION ERRATA SHEET

2 Case Name: Marvell v Credo

3 Name of Witness: Dr. Michael Chen

4 Date of Deposition: May 8, 2026

5 Reason Codes: 1. To clarify the record.

6 2. To conform to the facts.

7 3. To correct transcription errors.

8 Page___Line___Reason_____

9 From_____to_____

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1 DEPOSITION ERRATA SHEET

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20 _____Subject to the above changes, I certify that
the transcript is true and correct.

21 _____No changes have been made. I certify that
transcript is true and correct.

22

23

24

DR. MICHAEL CHEN

25