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1 UNITED STATES PATENT AND TRADEMARK OFFICE

2 -----

3 BEFORE THE PATENT TRIAL AND APPEAL BOARD

4 -----

5 MICRON TECHNOLOGY, INC.,
6 Petitioner,

7 vs.

8 YANGTZE MEMORY TECHNOLOGIES COMPANY, LTD.,
9 Patent Owner.

10 -----

11 Case No. PGR2025-00021
12 U.S. Patent No. 12,010,838 B2

13 -----

14 REMOTE DEPOSITION OF

15 KONSTANTINOS P. GIAPIS, PH.D.

16

17 Wednesday, February 11, 2026

18 9:00 a.m. (PST)

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23 Reported by:

24 Jaclyn Urzia, RPR, CRR

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February 11, 2026

9:00 a.m. (PST)

Deposition of
KONSTANTINOS P. GIAPIS, PH.D.,
held remotely via Zoom, before
Jaclyn Urzia, a Registered
Professional Reporter, Certified
Stenographic Realtime Reporter and
Notary Public.

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2

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17 A L S O P R E S E N T:

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1 ----- I N D E X -----

2 WITNESS EXAMINATION BY PAGE

3 KONSTANTINOS GIAPIS

4 MR. HERMAN 5

5 MR. WATSON 90

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8 EXHIBITS REFERENCED PAGE

9 Exhibit 2019 7

10 Exhibit 1001 9

11 Exhibit 1005 37

12 Exhibit 1006 53

13 Exhibit 2043 82

14 Exhibit 2042 88

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21 (REPORTER'S NOTE: All quotations
22 from exhibits are reflected in the manner in
23 which they were read into the record and do
24 not necessarily denote an exact quote from
25 the document.)

1 KONSTANTINOS GIAPIS,
2 called as a witness, having been duly
3 sworn by a Notary Public, was examined
4 and testified as follows:

5 EXAMINATION BY

6 MR. HERMAN:

7 Q. Good morning, Doctor.

8 Well, I know you have significant
9 past experience with depositions,
10 including some that I have taken myself,
11 I'm going to start by going through a few
12 basic ground rules just to make sure we're
13 on the same page here today.

14 A. Okay.

15 Q. The first is that it's important
16 that we try not to talk over each other so
17 that there is a clear record. So I'll do
18 my best to wait for you to finish
19 answering a question before asking another
20 question, and I also ask that you wait
21 until I'm done with my question and then
22 pause for a bit before answering to give
23 your attorney time to object if he sees so
24 fit, and to make sure, again, that we're
25 not talking over each other.

1 Is that okay?

2 A. Yes, that's fine.

3 Q. Next, you're entitled to a
4 question you understand. So if anything I
5 ask today is unclear, please let me know,
6 and I'll try to clarify. Otherwise, I'll
7 assume that we're on the same page.

8 Is that okay?

9 A. Yes.

10 Q. Next I ask that you not look at
11 anything during the deposition besides
12 documents that I give you, and if for some
13 reason you do look at something, I ask
14 that you tell me.

15 Is that okay?

16 A. Sure.

17 Q. I also ask that you don't have
18 any side conversations or use technology
19 to chat or communicate with anyone during
20 the deposition.

21 Is that okay?

22 A. Yes.

23 Q. Now, is there anything that would
24 prevent or interfere with your ability to
25 testify today?

1 A. Not that I know of.

2 MR. HERMAN: So over the course
3 of the day today, I'm going to be
4 dropping PDFs of exhibits into the
5 chat for you to access. And I'm going
6 to start with an exhibit that's been
7 marked 2019.

8 BY MR. HERMAN:

9 Q. And it's a little bit larger, so
10 let me know when you receive that.

11 A. Okay. So let me try.

12 Yes, I have been able to download
13 it and open it.

14 Q. So what is Exhibit 2019?

15 A. On the first page, it states:
16 Declaration of Konstantinos Giapis in
17 Support of Patent Owner's Response,
18 Exhibit 2019 and -- one second...

19 And on the last page it has my
20 signature. So I believe this is my second
21 declaration regarding the '838 Patent.

22 Q. And do you understand that this
23 is the declaration that we are here to
24 discuss today?

25 Is that your understanding?

1 A. Yes.

2 Q. And on the cover of this
3 declaration, there's a reference to
4 PGR202500021.

5 Do you see that?

6 A. Yes, I see that.

7 Q. And below that, there's reference
8 to Patent No. 12,010,838.

9 Do you see that?

10 A. Well, -- oh, I see. Yeah, I was
11 looking at the bottom right corner.
12 You're reading something from the middle
13 of the page, right?

14 Q. That's right.

15 A. Yes, I see both numbers, yes.

16 Q. And that Patent Number I just
17 read, that's the '838 Patent that you
18 referred to in one of your previous
19 answers, correct?

20 A. I believe it is, yes.

21 Q. Is there anything in this
22 declaration, sitting here today, you
23 believe is inaccurate?

24 A. Well, besides a few typos and
25 grammatical errors that I caught during my

1 review of this document, I stand behind
2 all the positions I have taken in this
3 document. I don't know of anything that
4 is wrong or I wouldn't agree with.

5 Q. So before we get into your
6 declaration, I'm going to give you one
7 more exhibit so you have it handy.

8 MR. HERMAN: So right now I'm
9 putting in the chat an exhibit that's
10 been marked 1001. Let me know when
11 you have that.

12 A. Yes, I have it.

13 Q. So what is Exhibit 1001?

14 A. This is the patent at issue in
15 this case, Patent No. US 12,010,838. So
16 the so-called '838 Patent.

17 Q. Now, let's go back to your
18 declaration that's Exhibit 2019. I'd like
19 to direct your attention to paragraph 31,
20 which begins on page 16.

21 A. Okay. For your information, I
22 have a clean copy of my declaration in
23 front of me, and I also have a clean copy
24 of the patent in front of me. The patent,
25 I have it more for the figures because

1 they're -- the font, I cannot read that
2 small font, but I would prefer to use my
3 hard copy at this moment, which is an
4 unmarked, freshly printed copy, if you
5 don't mind.

6 Q. Yeah, that's --

7 A. And if I have to do any word
8 searching, then I will use the computer
9 next to me.

10 Q. Yes, that's completely fine.

11 A. Okay.

12 Q. So the only thing I ask is, if
13 you're referring to a particular portion
14 of your declaration and reading from
15 somewhere in your declaration in your
16 answer, that you just please let me know
17 where you're reading from, and that would
18 be helpful.

19 A. Okay.

20 Q. But you can refer to either the
21 paper version or the electronic. That's
22 fine.

23 A. Sure. So please state your
24 question now.

25 Q. So I'd like to start with

1 paragraph 31, which begins on numbered
2 page 16 of your declaration.

3 A. Okay. Yes, I am there.

4 Q. So paragraph 31 starts a section
5 that you've entitled Overview of the '838
6 Patent, right?

7 A. Yes.

8 Q. And paragraph 31 is lengthy and
9 ends in what appears to be an annotated
10 version of Figure 8 of the '838 Patent, is
11 that right?

12 MR. WATSON: Objection. Vague.

13 A. I believe that is correct.

14 Q. Now, in the next paragraph that's
15 paragraph 32, you note that: Contacts
16 must be formed to the word lines. In the
17 '838 Patent structure, the landing pads
18 are where the contacts are made by means
19 of vertical, middle columns not shown.

20 Do you see that in paragraph 32?

21 A. Yes, I do.

22 Q. So where would those vertical
23 metal columns be located if they were
24 present in the Figure 8 of the '838
25 Patent?

1 A. Well, as the opening sentence to
2 paragraph 32 states: The landing pads are
3 where the contacts are made.

4 So the contacts would need to be
5 touching the landing pads. These are
6 marked as items 820 in the annotated
7 Figure 8 above paragraph 32.

8 Q. So in your annotated figure, one
9 of the landing pads 820 is highlighted.
10 It appears to be yellow or maybe orange,
11 is that right?

12 A. Yes, I see that.

13 Q. All right. So there will be a
14 vertical column that proceeds through
15 material that's labeled 825 and contacts
16 that yellow or orange landing pad 820, is
17 that right?

18 A. Repeat the question.

19 Q. So there will be a vertical metal
20 column that proceeds through the material
21 that's labeled 825 and contacts that
22 landing pad 820 that's annotated in
23 orange, correct?

24 A. Well, in this simplified picture
25 with only the materials shown, yes. That

1 is correct, what you're saying.

2 Q. So --

3 A. But it's a little bit more
4 complicated than what this caricature
5 indicates.

6 Q. So this picture is drawn in the X
7 Z plane, is that right?

8 A. I'm looking at the Figure 8 in
9 the patent, and yes, this picture is drawn
10 in the X Z plane.

11 Q. So generally speaking, in Figure
12 8, the Z direction would correspond to up
13 and down in Figure 8, correct?

14 A. As we look at this figure, as
15 positioned in my declaration, yes, that
16 would be correct.

17 Q. And then the X direction would be
18 from the left to the right of the figure
19 as positioned in your declaration,
20 correct?

21 A. Yes, that is correct.

22 Q. Now, we talked about there being
23 a vertical metal column that contacts that
24 yellow highlighted landing pad 820,
25 correct?

1 A. Well, now that we have defined
2 the vertical direction, I want to be clear
3 that the column comes from the general
4 vertical direction or is sort of generally
5 pointing to the vertical direction, but
6 the column we have, you know, its shape
7 that is -- is not cylindrical, it may be
8 conical, it may be somewhat modifying in
9 the process by which you're making the
10 column.

11 So the column itself may deviate
12 from the vertical, but, you know, it does
13 come from above and as best it can be made,
14 it approximates the vertical direction.

15 Q. Now, at some point though, that
16 vertical column, regardless of its shape,
17 will contact the landing pad, correct?

18 A. You're trying to make electrical
19 contact to the pads. So the point is at
20 some point the vertical or approximately
21 vertical contact plug will be touching the
22 pad.

23 Q. And the landing pad that's shown
24 in Figure 8 has dimension in the X
25 direction, correct?

1 A. I would say it has an X in the X
2 direction, yes.

3 Q. Would it be okay if I called that
4 dimension in the X direction the landing
5 pad's width?

6 A. Well, this is a step in a
7 staircase, and in everyday language, when
8 we talk about the width of the staircase
9 generally, we mean one in the direction
10 perpendicular to the page, into the page.

11 I would call this length, it's
12 the length of the step, not the width. The
13 width to me is, you know, how wide the step
14 is so that, you know, let's say ten people
15 can step simultaneously on it as opposed to
16 having -- but if you prefer to call it the
17 width, I will try to abide by your thesis.

18 Q. So I had a 50 percent chance of
19 getting it right, and I got it wrong. So
20 let's go with length. Let's call the
21 dimension in the X direction the length.

22 Are you okay with that?

23 A. Okay. I'm fine with that, yes.

24 Q. So where along the length of the
25 landing pad will the contact with that

1 vertical column be?

2 MR. WATSON: Objection. Form.

3 A. Well, it depends on the process
4 by which you're making the hole. You
5 know, that process cannot be 100 percent
6 reliable. So, you know, as you dig the
7 hole that you will fill with the conducted
8 material, the hole may sort of decide to
9 move to the left or to the right or into
10 the page or out of the page.

11 So, you know, there is some
12 randomness associated with where the
13 contact pad, or rather the -- where the
14 middle will touch the pad. So, you know,
15 you hope it's going to be within the pad
16 length and width obviously if you want to
17 make electrical contact. You don't want
18 that to miss the pad, even partially, but,
19 you know, what exactly it will touch, it
20 depends again on the process by which
21 you're making the holes that will be filled
22 with metal.

23 Q. So I think you said you don't
24 want that vertical contact to miss the
25 landing pad, is that right?

1 A. Well, if it misses the landing
2 pad, then it either makes partial
3 electrical contact or no electrical
4 contact at all, in which case it defies
5 the purpose for which you're putting down
6 this contact plug.

7 So, yeah, you don't want it to
8 miss the pad.

9 Q. So would a person having ordinary
10 skill in the art recognize that there is a
11 high risk of missing the pad if you
12 attempted to form that vertical column at
13 the very leftmost edge of the landing pad
14 as shown in Figure 8?

15 MR. WATSON: Objection. Form.

16 A. Well, I would disagree with that
17 because, as I told you, this depends on
18 the process you're using to make the holes
19 and how accurately you can control it.

20 So that process is generally an
21 etching process involving plasmas and a
22 person of ordinary skill would be trained
23 in the use of those plasmas and would know
24 of any deviation from the vertical you
25 might get and how much that is.

1 So depending on what you're doing
2 and how accurate your process is, you would
3 be able to position it closer to an edge
4 and be sure that you will be touching the
5 pad in full.

6 Q. So if you formed that vertical
7 volume such that it was as close as
8 possible to the leftmost edge of the
9 landing pad, at least a portion of the
10 vertical column will be over what you've
11 labeled as laterally displaced, correct?

12 MR. WATSON: Objection. Form.

13 A. Can you clarify if you're
14 referring to the second material layer
15 leftmost edge, the one that is highlighted
16 with green color?

17 Q. I'm referring to the landing
18 pad's leftmost edge.

19 A. Yeah, but you used the term
20 "laterally displaced," and that is, of
21 course, measured with respect to the green
22 layer. As viewed from the top, you
23 know -- I mean, there is some -- I just
24 want to make sure that you're referring to
25 the correct lateral displacement.

1 Q. So my question was, if you formed
2 that vertical column as far to the left as
3 possible on the landing pad, at least a
4 portion of that vertical column would
5 appear over what you've labeled as
6 laterally displaced, true?

7 MR. WATSON: Objection. Form.

8 A. So just to be clear about your
9 question, since you're referring to
10 whether the contact plug will terminate on
11 the landing pad, I want to be clear that
12 the plug has a width, and that width is
13 not really small. This is -- in
14 comparison to the length of the step. You
15 know, you want to have a good metal
16 contact there so there is a substantial
17 portion of the pad that will be occupied
18 because there are some caricatures in some
19 of the patents where this is shown as a
20 thin wire coming down.

21 It's not a thin wire, you know,
22 this -- you proportion the plug with
23 respect to the pads so that -- you know,
24 so that you make the most contact if you
25 want with the pad.

1 Now, you know if you have full
2 control of the etching process that forms
3 the hole where the contact plug will be
4 filled or formed, the -- you know, then you
5 can position it within a tolerance anywhere
6 on this pad.

7 So is it possible for the plug to
8 go to land on the laterally displaced part
9 in Figure 8, is that your question?

10 Q. Yes.

11 A. I haven't opined on this anywhere
12 in my report, have I?

13 Q. Sitting here today, I don't know
14 the answer to that. You're free to review
15 your report to the extent you need to to
16 answer the question.

17 A. I don't think I can answer this
18 question without some analysis. If I give
19 you an answer, it will be very speculative
20 at this point based on my experience, and
21 I'd rather do some work first before I can
22 answer this.

23 Q. Let's turn to paragraph 48 of
24 your declaration.

25 A. Okay. I'm there.

1 Q. This begins a section that you've
2 entitled Claim Construction, right?

3 A. Yes, it does.

4 Q. And that Claim Construction
5 section begins with discussion of: Terms
6 involving "first" and "second portion" "of
7 the second material layer," right?

8 A. That's right.

9 Q. Now, Claim 1 of the '838 Patent
10 requires that the claimed second material
11 layer, which is a conductive layer,
12 include a first portion and a second
13 portion, correct?

14 MR. WATSON: Objection. Form.

15 A. Please repeat your question.

16 Q. So Claim 1 requires that the
17 claimed second material layer, which I
18 believe is a conductive layer, include
19 both a first portion and a second portion,
20 right?

21 MR. WATSON: Objection. Form.

22 A. Claim 1 requires that at a
23 minimum there is a first portion and the
24 second portion of the second material
25 layer.

1 Q. Now, if you take a look at
2 paragraph 49, in that paragraph you note:
3 It is my opinion that a POSITA would
4 construe the term "wherein the first
5 material layer is disposed over a first
6 portion of the second material layer."

7 Do you see that?

8 MR. WATSON: Objection. Form.

9 A. Please repeat your question.

10 Q. So paragraph 49, you propose a
11 construction of the claim language wherein
12 the first material layer is disposed over
13 a first portion of the second material
14 layer, correct?

15 A. Yes, I see that.

16 Q. And in about the middle of that
17 construction, there's two words "but not."

18 Do you see that?

19 A. Yes.

20 Q. And before the words "but not,"
21 you've repeated the claim language,
22 correct?

23 A. That appears to be correct.

24 Q. And then to the end of the claim
25 language, you've added the phrase "but not

1 a second portion of the second material
2 layer."

3 True?

4 MR. WATSON: Objection. Form.

5 A. Well, I'm targeting something
6 different in this paragraph from paragraph
7 48. Something that requires that I
8 account for something else that is also
9 happening in Claim 1.

10 So I'm just trying to make my
11 language here more precise because this is
12 claim language and I am construing a term
13 based on what is stated in Claim 1.

14 Q. And your construction, though,
15 adds the phrase "but not a second portion
16 of the second material layer" to the claim
17 language, true?

18 MR. WATSON: Objection. Form.

19 A. Well, again, I am construing a
20 term. I'm sort of -- I hesitate to agree
21 that I am adding this to the claim
22 language. This is my own construction.
23 This is -- you know, I'm trying to make
24 clear what the term means in Claim 1.

25 Q. And your construction specifies

1 where the first material layer cannot be,
2 true?

3 A. My construction specifies that
4 there has to be a second portion of the
5 second material layer and the first
6 material layer cannot be over that second
7 portion, separate and distinct second
8 portion.

9 Q. So that's a negative limitation,
10 correct?

11 MR. WATSON: Objection. Form.

12 A. Well, I don't receive this as a
13 negative limitation. I pursue this, you
14 know, as a more precise definition of
15 where the layer is.

16 Q. So you do not perceive language
17 that specifies where the first material
18 layer cannot be as a negative limitation,
19 that's your opinion?

20 MR. WATSON: Objection. Form.

21 A. Well, I'm not a lawyer. It
22 sounds to me like a negative limitation,
23 you know, has a meaning in patent law. I
24 am just trying to be more precise here as
25 to whether the first layer can be

1 positioned with respect to a properly
2 apportioned second layer.

3 So that's all I'm trying to do
4 here.

5 Q. And the way you did that was by
6 proposing a construction that specifies
7 where the first material layer cannot be,
8 true?

9 MR. WATSON: Objection. Form.

10 A. Well, again, what I'm doing in
11 this paragraph is, you know, I'm trying to
12 interpret Claim 1 of the '838 Patent,
13 which, you know, talks about having two
14 elements that need to be properly
15 positioned over the second -- over the
16 extent or length of the second material
17 layer.

18 And I'm trying to allow space in
19 the second material layer, you know, for
20 the -- that additional layer can be
21 positioned over. And I'm, you know,
22 interpreting the claim in that way.

23 I think this sentence here is
24 consistent with the one appearing in
25 paragraph 48, which is limited to only one

1 layer above the second layer. You know,
2 there is something new that I am trying to
3 address in paragraph 49.

4 Q. So putting that aside, though,
5 your construction of that wherein the
6 first material layer limitation specifies
7 where that first material layer cannot be,
8 true?

9 MR. WATSON: Objection. Form.

10 A. Well, I'm specifying that the
11 first material layer cannot extend over
12 the entirety of the second material layer
13 here. Basically, I'm making sure in this
14 language that I use that there is a
15 portion of the second material layer over
16 which the first material cannot be.

17 Q. Now, you've also proposed a
18 construction for the phrase of landing pad
19 disposed over the second portion of the
20 second material layer, correct?

21 A. Yes, that's correct.

22 Q. And your construction of that
23 language specifies places where the
24 landing pad cannot be, true?

25 MR. WATSON: Objection. Form.

1 A. Well, I'm glad you went now to
2 the landing pad because that's what I have
3 been telling you all along here, trying to
4 answer your question.

5 There is a new element that is
6 being introduced in this paragraph, and
7 that is the presence of the landing pad,
8 which, you know, has a physical extent,
9 and Claim 1 to me is very clear as to how
10 these overlying layers, the first material
11 layer in the landing pad need to be
12 proportioned over the second material
13 layer.

14 So I'm just trying to use
15 language here that makes it absolutely
16 clear where this placement is occurring and
17 the fact that the portions of the second
18 layer cannot be overlapping.

19 Q. And the way you've done that is
20 by number 1, specifying places where the
21 first material layer cannot be, and number
22 2, specifying places where the landing pad
23 cannot be, true?

24 MR. WATSON: Objection. Form.

25 A. Well, that's an additional

1 clarification that I'm providing. I'm
2 mostly saying exactly where they need to
3 go.

4 You know, I'm just trying to make
5 it entirely unambiguous as to where the
6 placement of these two critical elements
7 for the invention go.

8 Q. All right. So your construction
9 both specifies where the first material
10 and the landing pad go and where they
11 cannot go, true?

12 MR. WATSON: Objection. Form.

13 A. By the way I put it just a couple
14 of minutes ago is that I specify where
15 these two elements go and try to make it
16 unambiguous that they cannot overlap. And
17 I chose the words so that, you know, I
18 make that absolutely clear.

19 Q. All right. So to avoid that
20 overlap you have specified in your
21 construction places where both the first
22 material layer and the landing pad cannot
23 go, true?

24 MR. WATSON: Objection. Form.

25 A. Well, I guess I'm not happy about

1 the use of the word "specify." What I'm
2 telling you is that I'm trying to make it
3 clear where these so-called upper-level
4 layers can go and the fact that they
5 cannot overlap.

6 And I'm making it clear by saying
7 that -- by saying what I'm saying in this
8 sentence, by stating it in this fashion,
9 because that prevents the overlap, and
10 that what I'm trying to do here.

11 Q. So I'm somewhat confused. Do the
12 claims exclude structures where there is
13 first material layer that is over top of
14 the second portion or not, yes or no?

15 MR. WATSON: Objection. Form.

16 Q. Is it your opinion that the
17 claims exclude structures where there is a
18 first material layer that is over both the
19 first portion and the second portion, is
20 that excluded from the scope of the
21 claims?

22 MR. WATSON: Objection. Form.

23 A. Okay. I have a clicking noise
24 here to my right which has been bothering
25 me since we started. I noticed it after

1 we started and I would want a break to
2 figure out what this is because it really
3 defocuses me at this point. Would that be
4 acceptable or do you want me to try to
5 answer your question?

6 Q. So just answer this question and
7 then we could take a break.

8 A. Okay. So you asked me two
9 questions. Can you -- let's focus on one.
10 I think there is overlap between the two
11 or maybe they're identical, but then
12 please repeat the question you want me to
13 answer.

14 Q. Do the claims exclude structure
15 where the first material layer is over
16 both the first portion and the second
17 portion of the second material layer?

18 MR. WATSON: Objection. Form.

19 A. Okay. I think I said earlier
20 that there have to be -- there has been a
21 minimum of two portions of the second
22 material layer. That means that there can
23 be part of the second material layer that,
24 you know, that goes beyond the presence of
25 the first portion and the second portion.

1 And what I'm trying to do in this
2 paragraph is specify that there can be no
3 overlap between the first portion
4 identified by the presence of the first
5 material layer above it, and the second
6 portion identified by the presence of the
7 landing pad above it.

8 So in this interpretation, the
9 first material layer cannot go over the
10 second material -- sorry, the first
11 material layer cannot go over the second
12 portion of the second material layer. And
13 the landing pad cannot go over the first
14 portion of the second material layer.

15 Does that answer your question?

16 MR. HERMAN: I believe so. So if
17 you're done, why don't we take a break
18 to try to resolve --

19 THE WITNESS: Yeah, I need to
20 figure this out. I'm sorry, there is
21 a clicking noise. I don't know if you
22 can hear it, but...

23 MR. WATSON: Let's go off the
24 record. And, Dr. Giapis, I'll see if
25 I can get you a tech person to help

1 you.

2 (Whereupon, a brief recess was
3 taken from 9:51 a.m. to 10:06 a.m.
4 PST)

5 BY MR. HERMAN:

6 Q. We could turn now to paragraph
7 108 of your declaration.

8 A. Paragraph 180.

9 Q. 108, 1-0-8.

10 A. Oh, sorry.

11 Okay. I'm there.

12 Q. So in paragraph 108, there's a
13 sentence that spans pages 81 and 82 that
14 reads: But an island shaped second
15 portion does not render Claims 1 and 12
16 obvious because it does not show -- and
17 then you've quoted some claim language,
18 correct?

19 A. Yes, that's correct.

20 Q. Is it your opinion that the '838
21 Patent's claims exclude memories in
22 employing island shaped landing pads?

23 MR. WATSON: Objection. Form.

24 A. No, that's not -- that's
25 definitely not my position.

1 Q. All right. So what is the import
2 of the statement "but an island shaped
3 second portion does not render claims 1
4 and 12 obvious" then?

5 A. Well, this is in reference to --
6 this is in reference to Kim's -- I'm
7 sorry, I take it back.

8 What I'm doing in paragraph 108
9 and the preceding paragraphs is I'm
10 discussing the construction, or rather the
11 theory offered by your expert Dr. Lee whose
12 presented a theory there involving an
13 island pad.

14 Your question is more general. I
15 am referring to the specific details
16 considered by your expert in describing
17 in -- describing elements thought by Kim as
18 basically meeting the claim language or, I
19 don't know what terms to state this.

20 So this sentence is, you know,
21 should not be interpreted in a generic
22 fashion. There are island landing pads
23 that -- sorry, I lost my line of thought
24 because the tech appeared here. Can I
25 speak to him now? I need to tell him what

1 to do.

2 Q. Just finish your answer to this
3 particular question, and then you can do
4 that.

5 A. Okay. I'm sorry, I got
6 interrupted. Please read the question
7 again to me.

8 Q. So all island shaped landing pads
9 will have insulation surrounding the
10 landing pad on all sides, otherwise it
11 would not be an island.

12 Is it your opinion that island
13 shaped landing pads can fall within the
14 scope of the '838 Patent's claims?

15 MR. WATSON: Objection. Form.

16 A. Well, as I started saying, no,
17 the answer is no to your question. There
18 can be island landing pads that meet the
19 claim language, but in this case, I was
20 addressing the theory put forth by your
21 expert which this regards a lot of
22 elements thought by Kim with hindsight so
23 that it can actually, you know, put that
24 theory forth.

25 But the answer to your question

1 is no.

2 Q. The fact that insulation
3 surrounds the landing pad on all four
4 sides does not necessarily cause it to
5 fall outside the scope of the claims,
6 that's your opinion?

7 MR. WATSON: Objection. Form.

8 A. Well, again, I am discussing a
9 very specific topic here. You're
10 generalizing to refer to all island pads.
11 You know, even the term island pad
12 applies -- you know, is being used as
13 proposed by Dr. Lee. There are other
14 parts that, you know, one can consider
15 them island or if you want immersed in the
16 dielectric or these -- you know, all of
17 these elements are immersed in a
18 dielectric.

19 So I -- you know -- I don't want
20 to give you generic answer for all pads
21 because, as I said, there are pads that
22 will meet the claim language. The specific
23 construction proposed by your expert, and I
24 think presented also in the petition does
25 not because it disregards key elements

1 thought by Kim. It selectively picks parts
2 of the structure to try to fit the claim
3 language, but, you know, to me, this is
4 hindsight.

5 Q. So what is your understanding of
6 hindsight, first of all?

7 A. Hindsight is knowing the element
8 you're trying to prove and then selecting
9 parts of the structure to fit eventually
10 what you're trying to do. You cannot
11 disregard essential elements of what, you
12 know, an invention contains.

13 Q. So it's important, for instance,
14 to consider what Kim says about its
15 structure in applying Kim to the claims,
16 correct?

17 A. I think that's the first --
18 that's the starting point in interpreting
19 an invention. You have to see what Kim is
20 teaching and consider it as a whole. You
21 cannot just break it apart into pieces and
22 pick and choose what you want out of that
23 invention.

24 MR. HERMAN: So why don't we
25 resolve your computer situation now

1 and then we can continue on. All
2 right?

3 THE WITNESS: Okay. Thank you.
4 (Whereupon, a brief recess was
5 taken from 10:15 a.m. to 10:24 a.m.
6 PST)

7 BY MR. HERMAN:

8 Q. All right. So I'm going to give
9 you another exhibit that's been marked as
10 Exhibit 1005.

11 A. Okay. I have it.

12 Q. And this is the Kim prior art
13 reference that you reviewed in connection
14 with your declaration, correct?

15 A. Yes, that's correct.

16 Q. And if you could turn to column 7
17 for me. And in particular, the paragraph
18 begins at line 58.

19 A. Okay. I'm there.

20 Q. And that reads: At the end of
21 the gate electrode 300 exposed through the
22 stepwise structure may be a pad unit PAD.

23 Do you see that?

24 A. I see the sentence, yes.

25 Q. All right. So Kim's pad unit PAD

1 is first in end of its gate electrode 300,
2 true?

3 A. So my understanding of this term
4 end of the gate electrode 300 as used by
5 Kim is he refers to the exposed step of
6 the staircase structure that's the entire
7 step. That's my understanding.

8 Q. So the pad unit PAD is the
9 exposed end of the gate electrode 300,
10 which is the entire step, true?

11 A. Well, as Kim clarifies in the
12 subsequent sentence to the one you just
13 read, he includes both PAD_B and PAD_P as
14 being the pad, but the end of the gate
15 electrode to me is the exposed step before
16 you apply layer 122 to form pad -- you
17 ultimately form PAD_P.

18 Q. But in this portion of Kim, it
19 calls the pad unit PAD and end of the gate
20 electrode 300 and specifically says it's
21 the end that's exposed through the
22 stepwise structure, true? That's what Kim
23 says.

24 A. Yeah. But I mean this discussion
25 is in reference to Figure 4B, and -- so

1 you have to look at Figure 4B and see what
2 it is that they're trying to do in there.
3 I think Kim is generically describing the
4 exposed step which can be modified at a
5 later instance to include the smaller
6 PAD_P on top.

7 Q. So Figure 4B already has the
8 PAD_P on top, correct?

9 A. Yeah. But that one also has
10 layer 122, but here he's referring only to
11 the end of the gate electrode as including
12 pad unit PAD.

13 Q. So in your last answer, you said
14 the passage I read is referring to Figure
15 4B, and Figure 4B includes both the PAD_P
16 and the PAD_B already present in the
17 structure, true?

18 A. Okay. So we have to be very
19 precise in what we're talking about here.

20 Yeah, actually, as I sit here
21 now, I don't recall if there is referring
22 to having removed the regional sacrificial
23 material and the modified material and
24 replaced it with the conductor.

25 So may I try to familiarize

1 myself again with this patent before I can
2 answer your question?

3 Q. You could do whatever you need to
4 do.

5 A. Thank you.

6 Okay. Do you mind repeating your
7 question so that I have it fresh again?

8 Q. All right. So in Kim, the pad
9 unit PAD, which is shown in Figure 4B is
10 the portion of gate electrode 300 that is
11 exposed through its stepwise structure,
12 correct?

13 MR. WATSON: Objection. Form.

14 A. One more time, please.

15 Q. All right. So in Kim, the pad
16 unit PAD is the part of gate electrode 300
17 that is exposed through the stepwise
18 structure, correct?

19 MR. WATSON: Objection. Form.

20 A. The pad unit PAD contains the
21 base pad and the protrusion pad. I think
22 your question applies to -- or describes
23 pad unit base. So you've got to limit
24 your question to pad unit base if you want
25 it to make sense.

1 Q. Okay. So the PAD_B is the part
2 of the gate electrode 300 in Kim that is
3 exposed through the stepwise structure,
4 correct?

5 A. Okay. Again, we need some more
6 precision to this question.

7 You say "exposed." In Figure 4B,
8 everything is covered with dielectric
9 layer, I believe 125. So there is nothing
10 exposed in this structure.

11 The exposure is happening at an
12 earlier stage when the stepwise structure
13 is actually formed. And at that area
14 structure, then your sentence is correct,
15 but not as it applies to Figure 4B, which
16 is, you know, what the sentence you started
17 your question within Kim referred to.

18 Q. So Kim itself uses the phrase
19 "exposed through the stepwise structure."
20 That's not my language, that's Kim's
21 language. It explains that Figure 4B
22 depicts a structure in which the pad unit
23 PAD is "exposed through the stepwise
24 structure."

25 That's what it says, correct?

1 MR. WATSON: Objection. Form.

2 A. Well, I see that language, but I
3 want to be very precise here, because
4 "exposed" means a lot of things, right?
5 You know, it was raining this morning here
6 and, you know, as I walking, I was exposed
7 to the elements, you know, but if I have
8 an umbrella, then I'm not exposed to the
9 rain directly.

10 So I want to make sure here that
11 I think, you know, the word "exposed" here
12 refers to a previous situation when there
13 was no cover on top of this pad because
14 Figure 4B show that is this pad is covered.
15 So just all I -- I'm making clear is that
16 I'm interpreting how Kim is using the word
17 "exposed" here.

18 Q. So this is not referring to a
19 previous step. This is referring to an
20 existing structure shown in Figure 4B in
21 which a given step is not covered by the
22 step above and is thus exposed. That is
23 the only reasonable way to interpret that
24 language, true?

25 MR. WATSON: Objection. Form.

1 A. Well, I guess I dispute the use
2 of the word "expose" here. I don't know
3 what the inventor meant by word "exposed"
4 here. I think the step is exposed at the
5 previous processing step -- the staircase
6 step is exposed at the previous processing
7 step, and then comes layer 122 that covers
8 it, and then come all the goodies that Kim
9 is using in terms of, you know,
10 photolithography and ion implementation
11 and replacement of the sacrificial
12 materials to create eventually picture 4B.

13 That's why I took my time to read
14 what Figure 4B is. Figure 4B refers to
15 basically a finished product, an almost
16 finished product in terms of how you
17 create the stepwise structure.

18 So "exposed" means sort of open
19 to me, and what I see here is a structure
20 Figure 4B that is covered by material 125.
21 So there is really nothing exposed. I
22 mean, you -- so tell me, how do you mean
23 "exposed"? I don't know what Kim means by
24 "exposed" here, but --

25 Q. So --

1 A. I think he refers to -- here he
2 refers to a previous processing step, when
3 this can actually be seen and be deposited
4 upon, because there is nothing exposed
5 here; this structure in Figure 4B of Kim
6 is a finished product, it's a finished
7 structure. You don't do -- you know, you
8 cannot access the surface of the -- it's
9 not exposed to anything. It's just -- you
10 know, it's sitting there being covered by
11 stuff.

12 So "exposed" to me in the use --
13 in the way Kim uses it can only refer to a
14 previous step when you have access to it.
15 Right now, you have no access to it. When
16 do you get access to it.

17 Q. And that understanding is part of
18 why you arrived at your opinion that Kim
19 does not teach what the '838 Patent claims
20 require, true?

21 A. No, actually, it has nothing to
22 do with --

23 MR. WATSON: Objection. Form --

24 Q. -- no, it does not have anything
25 to do with your opinions, it does not,

1 but...

2 So you don't understand what
3 Kim's doing, you don't understand what
4 "exposed" means, and this word here has
5 nothing to do with the opinions that you
6 arrived at in this case. That's your
7 testimony?

8 MR. WATSON: Objection. Form.
9 Argumentive.

10 Q. You're not answering my
11 questions, Doctor. You're not answering
12 my questions. He's referring to a figure
13 with the completed structure and he says:
14 The end of the gate electrode exposed
15 through the stepwise structure may be a
16 pad unit PAD -- and you seem unwilling to
17 say that that is the portion of the gate
18 electrode that is not covered by the step
19 above.

20 Are you unwilling to say that's
21 what Kim means, yes or no?

22 MR. WATSON: Objection. Form.
23 Argumentive. He's answering your
24 questions, Pat.

25 Q. Yes or no, are you unwilling to

1 say that's what Kim means? Do you agree
2 that's what he means, that the exposed
3 from the step above means not covered by
4 the step above?

5 MR. WATSON: Objection. Form.

6 Q. It's a yes or no question. Yes
7 or no?

8 MR. WATSON: Objection. Form.
9 Argumentative.

10 A. Okay. So let's step back a
11 little bit because you put words in my
12 mouth right now, right.

13 Q. I'm asking you a yes or no
14 question. Does he mean not covered by the
15 step above, yes or no?

16 MR. WATSON: Objection vague.

17 Q. Or explanation is needed, the
18 answer is no. If you believe that's what
19 he means, the answer is yes.

20 Yes or no, does he mean not
21 covered by the step above when he says
22 "exposed through the stepwise structure"?

23 MR. WATSON: Objection. Vague.

24 Maybe, Patrick, that got a little
25 muddled on the record maybe you can

1 repeat your question because I think
2 we kind of --

3 MR. HERMAN: It's perfectly
4 clear.

5 MR. WATSON: All right. We'll
6 let the record speak then. It's fine.

7 A. Subject to interpreting my --
8 interpreting Kim's use of the word
9 "exposed" to a previous processing step,
10 then the answer is yes, this is a part of
11 the staircase structure that is exposed.

12 But I want to make absolutely
13 sure that, you know, the discussion refers
14 to an earlier processing step and not to
15 the completed processing step as shown in
16 Figure 4B.

17 Q. Let's turn now to paragraph 107
18 of your declaration.

19 A. Okay. I'm there.

20 Q. Now, at the end of that paragraph
21 you have an annotated figure, correct?

22 A. Yes, that's correct.

23 Q. And in that annotated figure
24 you've labeled both a first portion and a
25 second portion, correct?

1 A. Well, I have annotated this
2 figure, but this is in response to your
3 expert's theory as to how the original
4 dielectric layer and the added new
5 dielectric layer 122 should be combined.

6 Q. But you added the annotations
7 of --

8 A. Yes, I did add the annotation --

9 Q. Right. And your first portion
10 includes the entirety of gate electrode
11 300 including the PAD_B, true?

12 A. No, that's not true.

13 Q. So PAD_B is not included in first
14 portion?

15 MR. WATSON: Objection. Form.

16 A. Well, so we're talking about the
17 first portion of the second material layer
18 here as it applies to the claims of the
19 '838 Patent.

20 And the first portion of the
21 second material layer is defined as the
22 material layer that has first material
23 layer above it, right? There has to be
24 this, you know, construction base on Claim
25 1 of the '838 Patent.

1 So that does not include the
2 landing pad. So in this depiction, which
3 is, you know, a two-dimensional depiction
4 that is taking a slice through the
5 structure and just observing a specific
6 point, you don't see that there is layer
7 122 that, if you want, bypasses the island
8 pad and reaches to the end of the
9 structure.

10 So based on Claim 1 of the '838
11 Patent, the first portion of the second
12 material layer needs to have the first
13 material layer above it. So in this case,
14 that cannot include where the landing pad
15 is.

16 Q. So you divvied up Kim's PAD_B
17 that included some of PAD_B in what you've
18 labeled the first portion, and then the
19 rest of PAD_B in what you've labeled as
20 the second portion, true?

21 MR. WATSON: Objection. Form.

22 A. Please repeat the question
23 slowly.

24 Q. You have divvied up Kim's PAD_B
25 and included some of PAD_B in what you've

1 labeled as the first portion, and then the
2 rest of PAD_B in what you've labeled as
3 the second portion, true?

4 MR. WATSON: Objection. Form.

5 A. What I'm trying to do here is I'm
6 trying to make sense of your expert's
7 theory as to eventually how Claim 1
8 applies to this figure, how Claim 1 of the
9 '838 Patent applies to this figure. And
10 I'm following some of the things that, you
11 know, Dr. Lee drew in his declaration.

12 Q. So you did not label the second
13 portion as spanning the entirety of the
14 Kim's PAD_B, correct?

15 MR. WATSON: Objection. Form.

16 Q. That's a yes or no question.

17 Did you label the second portion
18 as spanning the entirety of Kim's PAD_B,
19 yes or no?

20 MR. WATSON: Objection. Form.

21 A. Well, again, I'm following the
22 logic of your expert who, in -- at least
23 according to my recollection -- in his
24 deposition leaves out part of the PAD_B,
25 as in base, in considering what the

1 combined layer 1 is placed with respect to
2 the second layer.

3 Q. So --

4 A. I'm just following his logic. I
5 mean, he's doing that. So I'm just
6 following his logic.

7 Q. So maybe you misunderstood his
8 declaration, but he opined specifically in
9 this declaration that the second portion
10 is PAD_B. So you did not accept that
11 opinion, true, because that's not what
12 you've labeled as the second portion in
13 your declaration? You did not accept
14 Dr. Lee's opinion that PAD_B is the second
15 portion because that is not what you have
16 reflected in this particular figure, true?

17 MR. WATSON: Objection. Form.
18 Mischaracterization.

19 A. Well, I need to see now his
20 declaration because I don't recall now
21 which way he states -- you know, what his
22 wording is regarding this figure.

23 Q. So this figure that you've
24 included in your declaration in paragraph
25 107 does not appear in Dr. Lee's

1 declaration? You can confirm that without
2 looking at his declaration because you
3 drafted it, true?

4 MR. WATSON: Objection. Form.

5 A. I believe Figure 4 as used in
6 paragraph 105 is --

7 Q. I asked you about 107, why are
8 you referring to paragraph 105? I'm
9 referring to paragraph 107. Let's try to
10 focus on my questions and answer my
11 questions.

12 The figure --

13 A. Okay.

14 Q. 107 is not in Dr. Lee's
15 declaration, correct?

16 A. That is correct, yes, because I'm
17 trying to make sense of what he shows in
18 his annotated Figure 4B which I reproduced
19 in paragraph 105.

20 Q. Did you read the words of his
21 declaration?

22 A. Of course I read the words of his
23 declaration. However, I don't recall them
24 verbatim right now and I'm asking to see
25 them again.

1 Q. Did you read the words of the Kim
2 reference?

3 MR. WATSON: Objection.
4 Argumentive.

5 A. Well, yes, I read the words of
6 the Kim reference.

7 Q. Is what you labeled as the second
8 portion, paragraph 107 of your
9 declaration, the entirety of PAD_B in Kim?

10 MR. WATSON: Objection. Form.

11 A. Well, no, that's not the entirety
12 of PAD_B.

13 MR. HERMAN: So I'm going to give
14 you another reference, which is
15 Exhibit 1006.

16 BY MR. HERMAN:

17 Q. Let me know when you've got that
18 one.

19 A. Okay. I got it.

20 Q. So Exhibit 1006 is the Lee
21 reference, correct?

22 A. Well, it is one of the Lee
23 references. I think there are a bunch of
24 Lee references that have been involved in
25 this case.

1 So how do you want me to specify
2 which Lee reference this is?

3 Q. The Lee reference that's at issue
4 in the grounds in your declaration and in
5 the petition in this particular
6 proceeding, correct?

7 A. Yes, that's what it is.

8 Q. So take a look at the abstract of
9 the Lee reference for me.

10 The abstract reference says:
11 First conductive layers.

12 Do you see that?

13 A. I'm sorry, I'm not there yet.
14 Hold on.

15 Okay. Yeah, I see that there.

16 Q. Then it says: Portions of the
17 first conductive layers exposed at the end
18 of the pad structure are defined as a
19 plurality of pad portions.

20 Correct?

21 A. Yes.

22 Q. Then there's reference to
23 unexposed portions of the plurality of
24 first conductive layers, true?

25 A. Yes, correct.

1 Q. So Lee states that its first
2 conductive layers have both exposed
3 portions and unexposed portions, true?

4 MR. WATSON: Objection. Form.

5 A. Please repeat the question.

6 Q. So Lee states that its first
7 conductive layers have both exposed
8 portions and unexposed portions, true?

9 A. Yes, that's true.

10 Q. And the exposed portions or the
11 unexposed portions of the conductive
12 layers are separate and distinct from each
13 other, true?

14 A. Well, this is a generic
15 introductory statement. It's in an
16 abstract. If we look at some of the
17 figures, this sort of sentence or this
18 description becomes muddled. If you go to
19 Figure 2A, for example, or 2B, you know,
20 you see that the conductive parts, you
21 know, are covered in all of those
22 instances.

23 Q. Despite that, despite the fact
24 that they're covered by insulation, Lee
25 still refers to a portion of that

1 conductive layer as exposed and a portion
2 as unexposed, true?

3 A. Well, that's what the abstract is
4 stating, but, you know, I guess I have a
5 problem with the use of the word "exposed"
6 here, what is meant by "exposed." That
7 has to happen in terms of a figure, you
8 have to use a figure to explain what this
9 is unless you define it anywhere in the
10 patent.

11 And actually, let me try to see
12 if the patent Lee describes this, in any
13 way, because I don't recall, as I sit here
14 today, if they defined what "exposed"
15 means.

16 Q. Well, so if it helps, paragraph
17 23 of Lee is referring to the structure
18 that's shown in Figure 1A, and it states:
19 Portions of the first conductive layers 11
20 that are exposed along the stepped end of
21 the pad structure, PS, may be defined as
22 pad portions PAD.

23 A. Okay. Yeah, thank you for
24 pointing that out. Let me observe it
25 first, please.

1 Okay. So paragraph 23 is in
2 reference to Figure 1. And in Figure 1, we
3 see that in that caricature, there is an
4 exposed part with nothing above it, and
5 then there is a covered part with other
6 layers above it.

7 So that's what I see.

8 Q. But it's not the conductive layer
9 that's exposed, right? There's insulation
10 on the top of Figure 1A, correct?

11 A. No, I'm sorry, I don't see that.
12 That is not shown as insulation. This is
13 shown as -- you know, as structure without
14 anything -- the step there is exposed.
15 That's exactly what I meant by "exposed."

16 Q. Layers 14 are insulating layers,
17 layers 13 are conductive layers in Kim,
18 true?

19 A. Correct. But there, where layer
20 13 is exposed, there's nothing on top of
21 it. There's absolutely nothing on top of
22 it. It's just depicted as Y, but it has
23 no thickness. This is the conductive
24 layer. This is the part being exposed,
25 exposed for us to see it.

1 Q. So layer --

2 A. There is nothing on top of it.

3 Q. Yeah, there is nothing on top of
4 layer 14, but layer 14 is the insulating
5 layer in Lee, not the conductive layer --

6 A. No, no, no, I'm sorry. Please go
7 to Figure 1A and you will see what I'm
8 talking about.

9 In Figure 1B, there is -- let's
10 forget about layer 13. The first layer 13,
11 from the top down -- Let's go to the second
12 layer 13 from the top down, come all the
13 way out to where the pad is, and you will
14 see that there is nothing on top of the
15 pad. In fact, there is nothing on top of
16 any of these pads.

17 Q. Okay. So the mistake here is the
18 paragraph I read is referring to Figure 1A
19 not Figure 1B. The paragraph I read
20 refers to Figure 1A not Figure 1B.

21 In Figure 1A there is insulation
22 on the top. Figure 1B is an alternative,
23 not the focus of paragraph 23.

24 Paragraph 23 is referring to
25 Figure 1A, correct?

1 MR. WATSON: Objection. Form.

2 A. Let me please consider that.

3 Okay. The answer is no, you're
4 incorrect.

5 Q. So you read paragraph 23 as
6 applying only to Figure 1B and not
7 Figure 1A, that's your understanding of
8 Lee?

9 A. The discussion is coming after
10 mentioning Figure 1A and 1B, right? And
11 layers 11 and 12 that paragraph 23 is
12 referencing, you know, exist in both. In
13 one case, they're covered. In the other
14 case, they're uncovered. So that's what I
15 see, right, so I have to interpret, you
16 know, the word "exposed" and "unexposed"
17 in terms of, you know, my understanding of
18 what "exposed" and "unexposed" means.

19 And because exposed to me means
20 there's really nothing about it, the only
21 way this makes sense is by connecting it
22 to the Figure 1B. But I don't see why I
23 would have to limit myself to Figure 1A.
24 I have to consider this the way it makes
25 logical sense.

1 Q. So you do not think, and your
2 opinion is premised on your belief that
3 paragraph 23 does not apply at all to
4 Figure 1A, correct? That's what you're
5 telling me right now?

6 MR. WATSON: Objection. Form.

7 A. No, that's incorrect. I didn't
8 say that. I need to give it some extra
9 thought if this applies to -- or in what
10 respect it might apply to Figure 1A.

11 But the most logical
12 interpretation right now, because it talks
13 about exposed and unexposed portions, is
14 to look at it from that perspective, what
15 is above it. If there is a layer above
16 it, then it's not really exposed.

17 Q. So you don't think the word
18 "exposed" is being used in the Lee
19 reference to refer to just not covered by
20 the entirety of the step above? That's
21 not how you understand Lee to be using the
22 word "exposed"?

23 MR. WATSON: Objection. Form.

24 A. Well, I am not really saying
25 that. I have to give it some more thought

1 whether it applies in that format, but
2 there is clearly one way here that makes
3 logical sense in my mind.

4 Q. So before today --

5 A. Figure 1 -- I'm sorry, I wasn't
6 done. It is Figure 1B that contains
7 exactly the layers in question here, and
8 those layers have nothing on top of it. They
9 have a portion that has nothing on top of
10 it and then they have a portion that is
11 covered, right. So there is a logical
12 inconsistency between Figure 1A and
13 Figure 1B if we take the "exposed" to mean
14 something else.

15 Q. Now, natural device, the finished
16 device, despite the fact that they're
17 shown exposed to the air in Figure 1B,
18 there will, in fact, be structure above
19 the contact pads in Figure 1B, true?

20 A. Well, in a final device
21 everything is buried in other materials
22 and other layers. So there is always
23 stuff above it.

24 Now, how you're going to use the
25 word "exposed" depends again on what it is

1 you're referring to. In my opinion, the
2 only logical way to interpret the word
3 "exposed" is to look at the previous step
4 when there was nothing above the
5 particular layer. Okay.

6 So how long you're going to go
7 back in that process to find that, you
8 know, I don't care. Because all I care
9 about is that I think you're referencing
10 that step, period, because it cannot be
11 exposed if it has other stuff on top of it
12 in the end. So you have to be referring to
13 an earlier version of the structure when
14 there was nothing above it.

15 Q. So before today, you did not
16 consider and did not include in your
17 opinions the understanding of the word
18 "exposed" in Lee as meaning just not
19 covered by the two staircase layers that
20 are immediately above a given step, is
21 that true?

22 MR. WATSON: Objection. Form.

23 A. All right. So as an example of
24 my use of the word "exposed" in my
25 interpretation, please look at paragraph

1 34 of my declaration. Okay?

2 There I talk about the exposed
3 portion of the insulating layer of each
4 step which is being removed to create
5 Figure 5 which follows on page 20. And my
6 use of the word "exposed" there is very
7 consistent with what I'm telling you here,
8 right, and I annotate the exposed portion,
9 the covered portion, you know, all of this
10 is pretty important. I'm doing this very
11 consistently.

12 Now, as you say, you know, the
13 final structure, you know, of the '838
14 Patent, it will actually, you know, have
15 stuff on top of it, but at this processing
16 step, there is an exposed portion and a
17 covered portion or an unexposed portion.
18 Okay?

19 So I do this consistently in my
20 report. I mean, I -- so that's the premise
21 of my report and my declaration. So when I
22 see this in other references, that's the
23 position I'm taking.

24 Now, there is a way to reconcile
25 everything by looking at the previous

1 processing step, to which I believe the
2 inventors of any of these patents are
3 referring to when they talk about the
4 exposed and an unexposed portion.

5 Q. So in Lee's memory, the staircase
6 structure includes pairs of conductive
7 layers 11 and insulating layers 12, true?

8 MR. WATSON: Objection. Vague.

9 A. Please go again.

10 Q. In Lee, the staircase structure
11 includes pairs of conductive layers 11 and
12 insulating layers 12, correct?

13 MR. WATSON: Objection. Vague.

14 A. Well, I would agree with that
15 description with the qualifier that, you
16 know, the sequence of the layers, you
17 know, may be different. In other words,
18 Figure 1A shows that the pairs here with
19 dielectric layer on top and conductive
20 layer on the bottom in this pair assembly,
21 and Figure 1B has the -- at least portions
22 of the structure where you have the
23 opposite, you have the conductive layer on
24 top of the dielectric layer, sort of like
25 the inverse of what you're saying.

1 Q. Do you consider that Lee may be
2 referring or using the word "exposed" to
3 refer to a pair of conductive and
4 insulating layers 11 and 12 that are not
5 covered by a pair of insulating layers 11
6 to 12 located above them?

7 MR. WATSON: Objection. Form.

8 A. Figure 1B, you know, shows as
9 that structure. It has a conductive layer
10 on top and then dielectric layer on the
11 bottom. The conductive layer on top is
12 exposed. So the pair effectively is
13 exposed in this case.

14 Q. So in Figure 1A, is a pair
15 exposed from another pair above it?

16 A. But in the inverse configuration;
17 it has the dielectric on top and the
18 conductive layer on the bottom. Exactly
19 the inverse of Figure 1B.

20 Q. So there is a portion of the pair
21 of 11 to 12 that is exposed from the pair
22 11 and 12 above it in Figure 1A, true?

23 MR. WATSON: Objection. Vague.

24 A. Well, again, subject to the
25 ordering that we see here, yes, there

1 is -- if you consider this pair with
2 whatever layer on top, there will be, you
3 know, a combination that is exposed in
4 Figure 1A and in Figure 1B.

5 Q. And there's also a portion of
6 that pair that is unexposed from the other
7 pair of 11 and 12 that's above it, true?

8 MR. WATSON: Objection, form --

9 A. With the exception -- yes.

10 THE WITNESS: Sorry.

11 MR. HERMAN: Sorry, I think, Tom,
12 you interjected something. You might
13 want to say it again because at least
14 I didn't hear it.

15 MR. WATSON: I just said
16 objection, form.

17 A. All right. So to make it clear,
18 to make my answer clear, in both Figures
19 1A and 1B of the Lee patent, there is a
20 pair combination that does not meet the
21 unexposed element that you just brought
22 up.

23 Q. Okay. So at each pair, there's
24 an exposed portion and an unexposed
25 portion, true?

1 A. No, that's not true. There is
2 the top pair that is entirely exposed in
3 Figures 1A and 1B. Please look at them.

4 Q. So excluding the top pair, every
5 other pair, there's a portion that's
6 exposed and a portion that's unexposed,
7 true?

8 A. That's true, yes.

9 Q. All right. Now, if you could get
10 your declaration back out for me, and
11 that's Exhibit 2019.

12 A. Okay. I have it.

13 Q. And if we could turn to paragraph
14 43.

15 A. Okay. I'm there.

16 Q. At the end of that paragraph,
17 you've got two annotated drawings or
18 figures, is that right?

19 A. Yes, that's right.

20 Q. And in the figure to the left is
21 the zoomed-in and colored version of
22 Figure 8 from the '838 Patent, correct?

23 A. Yes.

24 Q. And the yellow or the orange
25 annotation indicates the landing pads,

1 correct?

2 A. Yes.

3 Q. And the blue is the '838 Patent's
4 layer 502, which I believe is insulation,
5 is that right?

6 A. Yes, that's right.

7 Q. What is the black and white
8 material in the figure?

9 A. That is layer 825 as described in
10 the '838 Patent.

11 Q. Is that also insulating material?

12 A. That is a dielectric layer which
13 is insulating, yes.

14 Q. Now, the landing pad that's shown
15 in this figure has a curved side surface
16 in your view, is that right?

17 A. The left-hand side picture, yes.

18 Q. Now, that layer 502 does not have
19 a curved surface, it has a straight
20 surface, correct?

21 A. Well, that is a vertical surface
22 without curvature.

23 Q. Without --

24 A. -- surface without curvature.

25 Q. Okay. So does that material 825

1 exist in the space between the landing
2 pad's curved side surface and that surface
3 of the layer 502 that does not have
4 curvature?

5 MR. WATSON: Objection. Vague.

6 A. Please repeat the question.

7 Q. Does any of that material 825
8 exist in the space between the landing
9 pad's curved side surface and the vertical
10 surface of layer 502?

11 MR. WATSON: Objection. Vague.

12 A. Well, some of that material will
13 make it into that space.

14 Q. And will that material that makes
15 it into that space be located over top of
16 the second portion of the '838 Patent's
17 second material layer?

18 MR. WATSON: Objection. Form.

19 A. No, this will not be located over
20 the second portion of the second material
21 layer.

22 Q. And why not?

23 A. Well, I don't believe I take a
24 position on this in my declaration, right,
25 I haven't given an opinion.

1 You know, the patent discusses
2 the first material layer and the landing
3 pad. And the landing pad is over the
4 second portion of the second material
5 layer. So now you're asking me to consider
6 an additional element somewhere in there.

7 So are you referring just to the
8 wedge of layer 825, that intrudes in there,
9 and then what does that terminate? Because
10 to me I consider the 825 layer as a hole up
11 there. So what portion do you want me to
12 consider? Is it -- do I draw a vertical
13 line, lined up with the first material
14 layer edge, or do I -- you know, how much
15 of that layer 825 am I considering? I mean
16 what portion are you referring to?

17 Q. Just the tiny little wedge that's
18 located between the curved side surface of
19 the landing pad and the blue annotated
20 version of layer 502 in your figure. Only
21 that portion of 825.

22 Is that tiny little wedge of 825
23 over top of the second portion of the
24 second material layer?

25 MR. WATSON: Objection. Form.

1 A. So you want me to exclude
2 everything about layer 825 except for that
3 portion?

4 Q. Yes.

5 MR. WATSON: Objection. Form.

6 A. Therefore, what you want me to do
7 is draw a line along the horizontal top
8 surface of layer -- of the first material
9 layer, consider extend it to the point it
10 touches the landing pad and consider only
11 material present below that level.

12 Q. That's exactly right.

13 Is that material that you just
14 referred to over top of the second portion
15 of the second material layer?

16 A. Just to be clear, there is more
17 of the layer 825 that is touching the
18 curve side surface. You want me to
19 exclude that?

20 Q. Yes. Yeah, I would like you to
21 include only the portion of 825 that you
22 just discussed in your previous answer.

23 A. Okay. Your hypothetical
24 question, you know, is something that I
25 did not consider in writing my

1 declaration.

2 It brings a new element into the
3 -- mainly a piece of material that is not
4 in contact with the second material layer.
5 All situations I have considered in writing
6 my declaration and based on the '838 Patent
7 do not involve these situations. So I
8 don't believe I can give you a fair answer
9 right now without spending more time on it.

10 Q. So this is not an issue that
11 you've already addressed in connection
12 with your declaration, correct?

13 A. I believe I have not addressed
14 it.

15 Q. Now, let's turn down to paragraph
16 63 of your declaration.

17 A. Okay. I'm there.

18 Q. Here, you're discussing your
19 understanding of what the claim term
20 "curved side surface" means, correct?

21 A. Yes, that is correct.

22 Q. And that's part of Claim 13 of
23 the '838 Patent, true?

24 A. Yes, that is true.

25 Q. And in paragraph 63, you state

1 that: A POSITA would understand the term
2 "curved side surface" to mean a vertical
3 surface curved along a direction, e.g. the
4 z-axis perpendicular to the top surface of
5 the structure.

6 Right?

7 A. Right.

8 Q. Now, the word "vertical" does not
9 appear in Claim 13, correct?

10 A. Correct.

11 Q. And the phrase "z-axis" does not
12 appear in Claim 13, true?

13 MR. WATSON: Objection. Form.

14 A. Well, again, what I'm doing here
15 is claim construction, and my
16 understanding is that all claims had to be
17 considered in a self-consistent way. They
18 have to be -- the technology has to be
19 consistent in how it is used in all of the
20 claim language. And while it is correct
21 that the z-axis is not mentioned there,
22 Claim 2 refers to a bottom surface and a
23 layered structure, which is a horizontal
24 surface, and I wanted to make sure that --
25 you know, that my definition includes

1 basically the normal to that horizontal
2 surface. So that's where the z-axis is
3 coming from.

4 So, you know, I think, you know,
5 the mention of a horizontal surface, you
6 know, by implication of horizontal surface
7 in Claim 2, you know, suggests that there
8 is a perpendicular direction and the curved
9 side surface is one that curves along that
10 normal direction to the surface, the
11 perpendicular direction of the surface.

12 Q. The word "perpendicular" does not
13 appear in Claim 13 either, correct?

14 MR. WATSON: Objection. Form.

15 A. Well, the word itself does not
16 appear there, but I think it is implied
17 once you establish a result of surface.

18 Q. The specification of the '838
19 Patent does use the words "vertical,"
20 "z-axis" and "perpendicular," correct?

21 A. Yes. The '838 Patent does use
22 the terms "vertical," "perpendicular" and
23 "z-axis."

24 Q. Okay. So let's switch gears a
25 little bit.

1 MR. WATSON: Would now be a good
2 time for a break, Patrick? We've been
3 going for a long time.

4 MR. HERMAN: Yes, now would be
5 very good because I'm going to switch
6 to something completely different. If
7 you'd like to take a break, now would
8 probably be a good time.

9 (Whereupon, a brief recess was
10 taken from 11:47 a.m. to 12:01 p.m.
11 PST)

12 BY MR. HERMAN:

13 Q. So if we could go back to
14 Exhibit 1005, the Kim prior art reference.
15 If you could turn to column 10 starting
16 about line 30 for me.

17 A. So Kim, column 10, line 30?

18 Q. Yes. There's a sentence that
19 starts at line 30 that reads: The surface
20 of the base pad PAD_B may include the
21 first region S1 contacting the protrusion
22 pad PAD_P and the second region S2 other
23 than the first region S1.

24 Do you see that?

25 A. Okay. Yeah, I do see that

1 wording.

2 Q. So S1 is essentially the surface
3 of PAD_B that's covered by PAD_P, right?

4 MR. WATSON: Objection. Form.

5 A. I suppose that's a logical
6 interpretation of the term.

7 Q. And then S2 is the rest of PAD_B
8 surface that is not covered by the PAD_P,
9 correct?

10 A. That's also a logical
11 interpretation of the language.

12 Q. Now, if you look down to line 40
13 of the same column 10 there's a sentence
14 that reads: The surface of the base pad
15 PAD_B may have a shape in which the first,
16 Region S1 is at a center of the surface with
17 the second region S2 surrounding the first
18 region S1.

19 Do you see that?

20 A. Yes, I do see that statement.

21 Q. Now, if the surface S1 is in the
22 center of the base pad's top surface, that
23 means the PAD_B or the PAD_P will also be
24 in the center of the top surface of the
25 base pad, correct?

1 MR. WATSON: Objection. Vague.

2 A. Well, I suppose this is one
3 interpretation of, again, the language.
4 You know, I don't want to say that this is
5 generally true because, you know, you're
6 not telling me what the landing pad shape
7 is or rather the PAD_P, as in protrusion,
8 shape is. It may be constructed in a
9 weird way so that its three-dimensional
10 shape allows it to come closer to the edge
11 of PAD_B, as in base.

12 Q. So in your view, Kim is open to
13 contact pad shapes other than shown in
14 this figures. That seems to be what
15 you're expressing in your answer, is that
16 right?

17 MR. WATSON: Objection. Form.

18 A. Well, I do not want to limit
19 myself to what is shown in the caricature
20 of PAD_P shape, you know, may be changed
21 and, you know, in all likelihood Kim
22 refers to what, to something that comes
23 close to what is shown, but I just don't
24 want to limit myself to just what is shown
25 because this is only one embodiment. And,

1 you know, there may be other embodiments
2 that I haven't considered.

3 But, you know, I'll allow for --
4 you know, for the protrusion pad to extend
5 in unusual way somewhere.

6 Q. Now, let's go back to your
7 declaration, which is Exhibit 2019.

8 A. Okay.

9 Q. And if you could turn to
10 paragraph 154 for me.

11 A. Okay. I'm there.

12 Q. That paragraph, the beginning of
13 that paragraph, you state: A POSITA would
14 have understood and known in 2017 that an
15 ArF excimer laser can print features both
16 far larger and smaller than their
17 wavelength using standard techniques.

18 Do you see that?

19 A. I see that, yes.

20 Q. Can such a laser also form
21 features that are the same as the laser's
22 wavelength?

23 A. It could, but it's not
24 immediately implied.

25 Q. Now, a feature that's sized ten

1 times smaller than a laser with a
2 wavelength of 193 nanometers would be a
3 19.3 nanometer feature, correct?

4 A. I guess the math works that way.

5 Q. Now, if you were to form a 19.3
6 nanometer contact pad, would there be
7 sufficient space on each side of the
8 contact pad for a specification value of
9 10 nanometers?

10 MR. WATSON: Objection. Form.

11 A. Before I give you an answer, for
12 the record, I want to point out that I'm
13 quoting there a reference that talks about
14 the limit of this technology, right? So
15 reference 2025 reads: Features sized ten
16 times smaller than the wavelength of laser
17 used in lithography.

18 So at the limit means that, you
19 know, you generally -- you know, this is
20 the ultimate that you can achieve. This
21 generally means that you have to go to
22 extremes to achieve it.

23 So yes, I mean, usually laser
24 equipment manufacturers, step
25 manufacturers, you know, like to talk about

1 it in marketing literature, but, you know,
2 and this is feasible, obviously they have
3 to base it on something, but whether it's
4 actually used in production is a different
5 story.

6 Usually, you target, you know,
7 larger sizes of the limit because the limit
8 means that you have to worry about, you
9 know, extremely, you know, smaller
10 durations and things that, you know, cannot
11 always be achieved, okay. Just because you
12 do it once or twice doesn't mean that you
13 can actually use it in a repeated
14 production environment.

15 So back to your question, please
16 restate your question.

17 Q. So I feel like you've already
18 answered my question adequately with your
19 answer. So we'll move on to something
20 else. If you could turn down to paragraph
21 181 for me.

22 A. I'm there.

23 Q. In about the middle of that
24 paragraph, there's a sentence that begins
25 with the word "Typically," and then it

1 continues: A thin layer of SiO₂ forms on
2 the nitride surface rapidly, which becomes
3 a barrier to further oxygen diffusion.
4 The oxygen can no longer reach the
5 underlying silicon nitride, thereby
6 slowing the oxidation reaction after 1-2
7 nanometers of surface oxide.

8 Do you see that?

9 A. I see that, yes.

10 Q. And then after that sentence you
11 cite a reference to Lin.

12 A. Yes, I do.

13 Q. And that's the only thing you
14 cite after that sentence, correct?

15 A. Well, right before this sentence,
16 there is a reference to Kuiper. So I was
17 considering both of those references
18 together.

19 Q. But in this sentence, you cite
20 Lin, correct?

21 A. In this sentence, I do cite Lin
22 alone, but this is the same paragraph as,
23 you know, where I cite also Kuiper. And,
24 you know, when I write something -- well,
25 in this case, I didn't repeat Kuiper, but

1 I had Kuiper in mind as well.

2 Q. So Lin, I believe, is an exhibit
3 that's been marked as 2043, which I'm
4 going to give you a copy of.

5 A. Okay.

6 Q. And let me know when you've got
7 that.

8 A. Okay. Yeah, I have it open.

9 Q. Now, Exhibit 2043 in the first
10 page of -- after the cover includes an
11 Experimental section, right?

12 A. Yeah, I see that section.

13 Q. And the Experimental section
14 discusses 20 to 30 angstrom thick silicon
15 nitride film, correct?

16 A. That's what the first sentence
17 is.

18 Q. What is 20 to 30 angstroms
19 converted to nanometers?

20 A. 2 to 3 nanometers.

21 Q. Are these silicon nitride layers
22 thicker than 2 nanometers?

23 A. Okay. I need to check Lee, but
24 before I do that, I've got a warning here
25 that my battery is running low, and I

1 don't believe I have a cable to plug this
2 computer in. So I don't know how much
3 time I have to actually look into it.

4 MR. WATSON: Why don't you answer
5 the question and we'll see if it
6 expires, it expires.

7 THE WITNESS: Well, I need to
8 check -- okay. Sure.

9 MR. HERMAN: Yeah, so if you
10 disappear because it turns off, we'll
11 stop --

12 MR. WATSON: We'll know.

13 MR. HERMAN: We'll wait for you.
14 So let's continue until that
15 eventuality.

16 A. I'm sorry, please repeat the
17 question.

18 Q. Are Lee's silicon nitride layers
19 thicker than 2 to 3 nanometers?

20 A. Well, I don't believe Lee
21 discusses how thick their nitride layer
22 is. So I -- it is likely that the layer
23 is thicker than that, but I don't have a
24 value for it.

25 Q. Now, the same Experimental

1 section we were looking at also discusses
2 oxidizing the silicon nitride films at 850
3 degrees Celsius for 20 seconds.

4 Do you see that?

5 MR. HERMAN: I see he may have
6 been rescued with a power cable.

7 We'll give him a moment.

8 A. Okay. Please repeat your
9 question.

10 Q. It's that same Experimental
11 section also discusses oxidizing the
12 silicon nitride films at 850 degrees
13 Celsius for 20 seconds.

14 Do you see that?

15 A. Okay. I think I see that, yes.

16 Q. Does Lee reference oxidizing its
17 silicon nitride films for 20 seconds?

18 A. I don't believe Lee gives a time
19 duration for the oxidation it's
20 contemplating.

21 Q. Now, in Exhibit 2043, there's
22 only one instance of the word diffuse,
23 diffuses, diffusing or diffusion, and
24 that's at the beginning of the Results and
25 Discussion section, correct?

1 A. I have someone asking me if I
2 need help with the laptop, which I do. I
3 cannot answer this question with this
4 fellow waiting there. So what do you want
5 me to do?

6 MR. HERMAN: So why don't we stop
7 for a moment and resolve your issue
8 and then continue.

9 THE WITNESS: Okay.

10 MR. WATSON: Sounds fair.

11 (Whereupon, a brief recess was
12 taken from 12:27 p.m. to 12:30 p.m.
13 PST)

14 BY MR. HERMAN:

15 Q. So the only place that a word
16 like diffuse, such as diffuses, diffusing,
17 diffusion appears in the exhibit is at the
18 beginning of the Results and Discussion
19 section, correct?

20 MR. WATSON: Objection. Form.

21 Q. I just want to make sure you're
22 still there. It's been...

23 MR. WATSON: I was going to ask
24 the same thing. Are you still there,
25 Dr. Giapis?

1 THE WITNESS: Yes, I am still
2 here.

3 A. And I'm trying to refresh my
4 memory regarding the patent paper in
5 question because I haven't read it since I
6 used it to write this report.

7 So I'm sorry it's taking time. I
8 need that time, though, because I've
9 forgotten some of the details I asked
10 about.

11 Q. So all I asked you was whether
12 the word "diffuse" appears anywhere other
13 than the beginning of the Results and
14 Discussion section?

15 MR. WATSON: Objection. Form.

16 A. Well, I do not want to answer
17 that question until sort of I have -- I
18 don't want to do this by just using a
19 search function. I need to remind myself,
20 you know, how and why I used this paper.
21 This is a fairly complex paper that, you
22 know, discusses oxidation of silicon
23 nitride and I used it for a reason. So I
24 was trying to remind myself of that. So I
25 need that time, I'm sorry.

1 Should I continue or...

2 Q. So when you're ready to answer
3 the question, I would suggest that you do
4 that.

5 A. Okay.

6 (Pause.)

7 Okay. Let's see if we can make
8 some progress here. The word "diffusions"
9 once in the paper and it's in the Results
10 and Discussion section. In the very
11 beginning of that Results and Discussion
12 section reads: During oxidation, oxygen
13 diffuses towards the underneath silicon and
14 the interaction may take place both in the
15 bulk nitride and the silicon.

16 Correct.

17 A. That's what the sentence states,
18 yes.

19 Q. Now, the word "barrier" also
20 appears just once in Exhibit 2043,
21 correct?

22 MR. WATSON: Objection. Form.

23 A. Yes, the word "barrier" appears
24 only once in the entire paper in unrelated
25 context.

1 Q. And the context is referring to a
2 barrier to holes, correct?

3 A. That word in this publication is
4 used to describe a barrier to holes, yes.

5 Q. Now, the other reference that you
6 cited in the paragraph of Exhibit 2019
7 that we've been discussing, I think you
8 pointed out is an article to "Cooper" or
9 "Quiper." I'm not entirely sure how to
10 pronounce the name.

11 A. "Quiper."

12 Q. Kuiper, okay. That's
13 Exhibit 2042. I'm going to put that into
14 the chat for you so you've got that one.

15 A. Okay.

16 Q. And Kuiper is entitled:
17 Oxidation Behavior of the LPCVD Silicon
18 Oxynitride Films.

19 Correct?

20 A. Yeah, that's the title of this
21 paper.

22 Q. And then there appears to be, on
23 the front page of the paper, an abstract
24 in smaller font.

25 Do you see that?

1 A. Yes, I do.

2 Q. And the first sentence reads: In
3 view of their application as oxidation
4 masks in a modified LOCOS technology the
5 oxidation behavior of LPCVD silicon
6 oxynitrides was investigated.

7 Do you see that?

8 A. I see that, yes.

9 Q. Now, Lee does not employ a
10 silicon oxynitride film as its sacrificial
11 layers, correct?

12 A. Well, that is correct, but you
13 read now a generic sentence from the
14 abstract that indicates that they were
15 targeting in this paper. They do discuss
16 silicon nitride without any oxygen in this
17 paper. In fact, they compare all the
18 results to that base case. This is the
19 base case scenario that I was
20 contemplating when using this reference.

21 MR. HERMAN: I don't have any
22 further questions.

23 MR. WATSON: Let me take two or
24 three minutes just to look through my
25 notes, Patrick, and then I don't

1 anticipate taking much longer. Just a
2 quick break.

3 THE WITNESS: Okay. Do we go off
4 the record?

5 MR. WATSON: Yeah, we'll go off
6 the record for two or three minutes.
7 And then let's be on in five minutes,
8 12:55.

9 (Whereupon, a brief recess was
10 taken from 12:49 p.m. to 12:56 p.m.
11 PST)

12 EXAMINATION BY

13 MR. WATSON:

14 Q. Dr. Giapis, can you turn to
15 paragraph 44 of your declaration?

16 A. I'm there.

17 Q. Okay. Earlier in this
18 deposition, you were asked about layer
19 825.

20 Do you remember that?

21 A. Yes, I do.

22 Q. Okay. Is layer 825 the first
23 material layer discussed in the '838
24 Patent?

25 A. No, it is not.

1 MR. WATSON: Okay. I don't have
2 any other questions.

3 MR. HERMAN: And I don't have
4 anything further.

5 (Time Noted: 12:57 p.m. PST)

6

7

8

9

KONSTANTINOS GIAPIS

10

11 Subscribed and sworn to before me
12 this ____ day of _____, 2026

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25

REPORTER CERTIFICATE

I, JACLYN URZIA, do hereby
certify:

That said proceedings were taken
at the time and place herein named;
and that the transcript is a true
record of the testimony as reported by
me, a disinterested person, and was
thereafter transcribed.

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

IN WITNESS WHEREOF, I have
hereunto set my hand this 12th day of
February, 2026.



JACLYN URZIA, RPR, CRR

DEPOSITION ERRATA SHEET

Case Caption: Micron Technology

DECLARATION UNDER PENALTY OF PERJURY

I declare under penalty of perjury
that I have read the entire transcript of my
Deposition taken in the captioned matter or
the same has been read to me, and the same
is true and accurate, save and except for
changes and/or corrections, if any, as
indicated by me on the DEPOSITION ERRATA
SHEET hereof, with the understanding that I
offer these changes as if still under oath.

KONSTANTINOS GIAPIS

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Notary Public, in and for the State of

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