

UNITED STATES INTERNATIONAL TRADE COMMISSION

In the Matter of:) Investigation No.
CERTAIN SMART WEARABLE DEVICES,) 337-TA-1398
SYSTEMS, AND COMPONENTS THEREOF)

OPEN SESSIONS

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1 UNITED STATES INTERNATIONAL TRADE COMMISSION
 2 Washington, D.C.
 3 BEFORE THE HONORABLE DORIS JOHNSON HINES
 4 Administrative Law Judge

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 6 In the Matter of:) Investigation No.
 7 CERTAIN SMART WEARABLE DEVICES,) 337-TA-1398
 8 SYSTEMS, AND COMPONENTS THEREOF)
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International Trade Commission
 500 E Street, S.W.
 Washington, D.C.

Wednesday, December 11, 2024

PRE-TRIAL CONFERENCE AND
 EVIDENTIARY HEARING - VOLUME I

The Hearing commenced in Courtroom A, pursuant to the
 notice of the Judge, at 9:00 a.m. Eastern.

Reported by: Karen Brynteson, FAPR, RMR, CRR

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P R O C E E D I N G S

(9:00 a.m.)

JUDGE JOHNSON HINES: Good morning, everyone.
Please be seated.

All right. We're here in Certain Smart Wearable
Devices, Systems, and Components Thereof, Investigation No.
337-TA-1398. We're here for the prehearing conference.

May I have appearances from counsel, please. We
will start with the Complainant.

MS. CARLAN: Good morning, Your Honor. I am
Janine Carlan for Complainants. And I would like to
introduce the team to you today.

JUDGE JOHNSON HINES: Thank you.

MS. CARLAN: We have Taniel Anderson, Jasjit
Vidwan, Chris Schultz, Margherita Capolino. And we have two
corporate representatives with us today, Sonali Shah and
Kristin Lamb.

JUDGE JOHNSON HINES: Good morning. Welcome.

MS. CARLAN: And we also have in the back, Nicole
Lynch. And we also have our hotseat person, James Beale.

And we do have some witnesses here today. We
have Dr. Majid Sarrafzadeh, Dr. Tajana Rosing and Carla
Mulhern. And, of course, I also want to thank many others
who aren't in this room who worked very hard on this case.

JUDGE JOHNSON HINES: Thank you. Good morning

1 and welcome.

2 And from the Respondents, please?

3 MR. McCRUM: Good morning, Your Honor. Ryan
4 McCrum from Jones Day on behalf of the RingConn Respondents.
5 With me this week on our team is Matt Hertko, Tracy Stitt,
6 Robert Breetz, Luke Cipolla, all from Jones Day. Also and
7 probably most important is Andrea Solomon, who is our
8 paralegal. I don't think I see her. She may have left for
9 the day.

10 And our client is here as well, Your Honor,
11 Dr. Tony Wu from Shenzhen, China. He is the CEO of
12 RingConn. And unless you would prefer me to introduce our
13 witnesses now, Your Honor, I will wait until the opening for
14 that.

15 JUDGE JOHNSON HINES: That will be fine. Thank
16 you. Good morning, everyone. Welcome.

17 MR. MOEHRINGER: Good morning, Your Honor. John
18 Moehringer from Cadwalader, Wickersham & Taft --

19 JUDGE JOHNSON HINES: Good morning.

20 MR. MOEHRINGER: -- on behalf of Ultrahuman
21 Respondents, Respondent Ultrahuman. With me today on the
22 team is Danielle Tully, Michael Powell, John Augelli,
23 Michael Russo. And in the back is Nick Ritzmann and Coco
24 Schaaff. Also Michael Schwartz is with us here.

25 Cameron Kasanzew will be here but she is not here

1 today. We have corporate representatives here today, Mohit
2 Kumar, Bhuvan Sirivasan, and Vatsal Singhal. And our
3 hotseat person is Richard Merisier. Thank you.

4 JUDGE JOHNSON HINES: Good morning. Thank you.
5 And welcome to you all, particularly to the corporate
6 representatives.

7 And for the Staff, please.

8 MR. WINSTON: Good morning, Your Honor. Whitney
9 Winston on behalf of the Commission Investigative Staff.
10 And with me today is David Lloyd.

11 JUDGE JOHNSON HINES: Good morning.

12 All right. Why don't we start with the list I
13 received this morning from the Complainants. The agenda
14 items for the prehearing conference. I will start with
15 those. I have some other things as well, but a good place
16 to start.

17 Sp the first thing that was identified was the
18 admission of unopposed exhibits. And I assume that's
19 referencing the joint list of unopposed exhibits that was
20 filed; is that correct, Ms. Carlan?

21 You can stay there and just turn on your
22 microphone if that's more convenient.

23 MS. CARLAN: Yes, Your Honor.

24 JUDGE JOHNSON HINES: All right. Are there any
25 changes to that list?

1 MR. ANDERSON: Your Honor, Tan Anderson. There
2 are no changes right now, but we anticipate resolving a
3 couple of issues and adding some physical exhibits and
4 pictures of physical exhibits of the torn-down rings.

5 JUDGE JOHNSON HINES: So is it your request that
6 we hold off on admitting the unopposed exhibits and that the
7 parties will submit an updated list?

8 MR. ANDERSON: That's the preference, yes, Your
9 Honor.

10 JUDGE JOHNSON HINES: All right. Mr. McCrum or
11 Mr. Moehringer, any comments on that?

12 MR. MCCRUM: No objection to that, Your Honor.

13 JUDGE JOHNSON HINES: All right.

14 MR. MOEHRINGER: No objection, Your Honor.

15 JUDGE JOHNSON HINES: Okay. Mr. Whitney?

16 MR. WINSTON: No objection, Your Honor.

17 JUDGE JOHNSON HINES: All right. So we will hold
18 off on the admission of unopposed exhibits. We can leave
19 that for another day.

20 The second item identified was the procedure for
21 duplicate exhibits. Can I get an explanation of what you
22 would like to raise there?

23 MR. ANDERSON: Yes, Your Honor. We deduplicated
24 our list. The Respondents still have some duplicates and I
25 think we decided that the most efficient way to deal with

1 this is that if there's a duplicate, we're all going to use
2 the JX. Then we're going to use the CX, then we're going to
3 use the lowest number RX so that we're all on the same page
4 and the Court doesn't have to deal with different numbers
5 for the same document. Apologies for that.

6 JUDGE JOHNSON HINES: Okay. Mr. McCrum?

7 MR. MCCRUM: Yes, Your Honor. The only thing
8 that I would add to that is that whatever is admitted, our
9 intent is to avoid any admission of duplicate exhibits. So
10 what will ultimately come to Your Honor is going to be
11 exhibits that will not have any duplicates in the group that
12 comes in.

13 JUDGE JOHNSON HINES: Okay. That sounds great.
14 My only concern is the transcript, right?

15 MR. MCCRUM: Right.

16 JUDGE JOHNSON HINES: And I am perfectly fine
17 with no duplicate exhibits being admitted, but if exhibits
18 that had been duplicates are discussed, addressed in the
19 transcript and then are not admitted or there is some
20 confusion of duplication of exhibits and exhibit numbers,
21 how the parties intend to address that?

22 MR. MCCRUM: I think that both private parties,
23 Your Honor, have agreed that we're not going to let that
24 happen, that we're going to follow the rule that Mr.
25 Anderson laid out, which is if we're going to introduce an

1 exhibit, it is going to be JX first, then CX, and then the
2 lowest RX.

3 JUDGE JOHNSON HINES: Okay. That sounds like a
4 good plan. The only caveat I would add is it's a good plan
5 until it doesn't happen. And my preference is for -- to err
6 on the side of a duplicate exhibit or two on the list so
7 long as everything that's referenced during the hearing
8 is -- actually relates to an exhibit that has been admitted
9 or at least there's discussion of why it has not been on the
10 record, so that's clear.

11 Does that make sense?

12 MR. MCCRUM: That makes perfect sense, Your
13 Honor.

14 JUDGE JOHNSON HINES: All right. Okay. Let's go
15 that way. Mr. Whitney anything to add?

16 MR. WINSTON: The Staff doesn't have anything to
17 add.

18 JUDGE JOHNSON HINES: All right. The third item
19 was an updated witness schedule and time estimate?

20 MS. CARLAN: Yes, Your Honor, and we will have
21 Margherita Capolino address this, as our NEXT advocate.

22 JUDGE JOHNSON HINES: Can you repeat her name.

23 MS. CARLAN: This is Margherita Capolino.

24 JUDGE JOHNSON HINES: Thank you.

25 MS. CAPOLINO: Good morning, Your Honor. We have

1 a few updates to the witness schedule that was attached as
2 Exhibit 6 to Complainants' prehearing statement and really
3 one big update, which is that a RingConn 30(b)(6) witness,
4 Min Wang, who was previously disclosed as a witness that
5 would be appearing and testifying live is unfortunately
6 unable to appear live.

7 And so we have, you know, kind of moved around
8 the time and reallocated a couple things in the schedule and
9 we will hand out updated versions of the schedule now, along
10 with the red line so you can see the changes. They are
11 pretty minor.

12 And we also have a proposal for how we would like
13 to present Mr. Wang's testimony, which I will discuss when
14 we get to item number 6 -- or, I'm sorry, item number 5.

15 We also have a potential dispute with respect to
16 the schedule that we have met and conferred about with
17 Respondents a couple times and both parties agree that it
18 would be helpful to get the Court's guidance here early
19 before we get started on the issue.

20 In particular, it is that Respondents I
21 understand want to reserve the right to call their expert
22 witness, Mr. Alarcon, at the end -- so following
23 Complainants' rebuttal at the end, that he would be the last
24 witness. So he would be testifying theoretically in
25 Respondents case-in-chief in rebuttal, which would be

1 potentially Friday, maybe into Monday, something like that,
2 and then he would be called a second time. And my
3 understanding is that Respondents want to reserve the right
4 for this in the event that there is something that is raised
5 in our secondary consideration presentation that is new or
6 that they think Mr. Alarcon needs to address directly.

7 We oppose that. We object to that. We think
8 that the notion that there might be something new is pretty
9 much an allusory concern because we are constrained by
10 ground rule 13.6.6, which limits the scope of expert
11 testimony to what is in the expert report and what was
12 discussed in the expert deposition.

13 So we really can't present anything new and we
14 don't think that, you know, this sort of what-if scenario is
15 appropriate. We also have, of course, substantive concerns
16 with this, substantive and procedural, the first of which
17 being this is not how things are done in this Court.
18 Complainants go first, Respondents put on their case and
19 then Complainants go last. That's the way that things work.
20 There is nothing in this case that is so unique that
21 warrants deviating from that well-established procedure.

22 The second objection that we have is the parties
23 had an agreement on the schedule and the list of witnesses.
24 That's what we have presented to Your Honor as Exhibit 6 for
25 original prehearing statement as well as what we just -- the

1 revised version that we just passed up. That was agreed
2 upon between the parties.

3 Respondents actually raised the possibility of
4 Mr. Alarcon testifying last while we were negotiating that
5 schedule weeks ago. They proposed that, we objected to it,
6 and removed from the schedule, we red lined it and deleted
7 it and we said, you know, we oppose that. We don't think it
8 is appropriate.

9 Respondents ultimately dropped it and then agreed
10 to the schedule that we provided to Your Honor as Exhibit 6.
11 And so we had presented that as an unopposed schedule, a
12 joint schedule, and we had understood that that issue was --
13 that it was waived.

14 So now on the eve of trial, trying to go back on
15 an agreement that we had already had weeks ago and an issue
16 that is waived, we just think that it's not appropriate. So
17 Complainants would respectfully ask the Court not permit
18 Mr. Alarcon to testify at the end of -- at the end of the
19 hearing.

20 JUDGE JOHNSON HINES: All right. Thank you.

21 I have a couple of questions on that. First,
22 with respect to Mr. Wang, whose witness is Mr. Wang?

23 MR. MCCRUM: Your Honor, that is Respondent
24 RingConn's witness.

25 JUDGE JOHNSON HINES: Okay. And I assume

1 Mr. Wang is unavailable to come testify?

2 MR. McCRUM: We very much wanted him to be here
3 but he had issues with the visa and so he couldn't be here
4 much to our dismay, but we don't have any objection to
5 Complainants -- they designated more of his testimony from
6 his transcript and we haven't objected to them doing that.

7 JUDGE JOHNSON HINES: Have the parties discussed
8 Mr. Wang appearing remotely?

9 MR. McCRUM: We have not had that discussion,
10 Your Honor. We would be certainly open to that. It might
11 be a little bit late in the game for us to get that done,
12 but we could certainly entertain that, absolutely, Your
13 Honor.

14 We do have our corporate witness here that was
15 able to get here that is going to cover the topics that
16 Dr. Wang was going to address, so I don't think we're losing
17 any substance, Your Honor. The evidence that Your Honor
18 might be interested in obtaining and evaluating is going to
19 come in still through a RingConn corporate witness. We were
20 just going to split that previously between two, and now
21 we're going to put it all in through one.

22 JUDGE JOHNSON HINES: All right. That of course
23 is your choice. You decide how you would like to proceed.
24 I did -- to the extent a witness is unavailable, because
25 they can't -- could not obtain a visa to come here, I am

1 sympathetic to that problem, and so if you have already made
2 your choice and decided that you're going to proceed the way
3 you're going to proceed with the corporate representative
4 that you have and the deposition testimony that you have,
5 that's your choice.

6 If -- my understanding, given the timing that was
7 originally proposed, Mr. Wang's testimony would have been on
8 Friday. I would like to give you the opportunity to
9 consider that. We can take Mr. Wang out of order, if that's
10 something that you'd consider. If not, I'm fine proceeding
11 the way that you all have proposed. So I don't mean to --

12 MR. McCRUM: I really appreciate --

13 JUDGE JOHNSON HINES: But there are other options
14 that are available. And if it needs to be -- the testimony
15 as I see it is fairly short, the time that you have
16 identified is fairly short. And so I am confident that it
17 could be accommodated in the days that we have next week.

18 MR. McCRUM: I really appreciate that, Your
19 Honor. And in hindsight, maybe I wish I would have
20 considered that option myself, but I appreciate you making
21 that available to us.

22 JUDGE JOHNSON HINES: All right. So I will tell
23 you what. Why don't you consider that. You are going to
24 have to make a quick decision on it.

25 MR. McCRUM: Sure.

1 JUDGE JOHNSON HINES: So if you can meet and
2 confer on that, discuss amongst yourselves and decide how
3 you want to proceed and what's possible, and let me know
4 tomorrow morning at the latest --

5 MR. McCRUM: Absolutely.

6 JUDGE JOHNSON HINES: -- how we're going to
7 proceed on that.

8 MR. McCRUM: Thank you, Your Honor.

9 JUDGE JOHNSON HINES: You're welcome.
10 Do the Complainants -- Ms. Capolino, any comment
11 on that?

12 MS. CAPOLINO: So we do have a proposal that we
13 baked into the items that we were going to go through today
14 about how to handle Mr. Wang's depo designations and then
15 you obviously noticed that we have reallocated some time to
16 Mr. Wu to cover some of those topics that Mr. Wang was going
17 to cover, so we're fine with proceeding that way, but we're
18 happy to meet and confer with Respondents if they want to
19 consider the video testimony. We're happy to do that.

20 JUDGE JOHNSON HINES: All right. Thank you.

21 Any issue, comment, Mr. Winston?

22 MR. WINSTON: The Staff has no objection to
23 either proceeding with -- in a way that the parties have
24 been discussing with deposition designations or to proceed
25 virtually and we will meet and confer with the other

1 parties.

2 JUDGE JOHNSON HINES: Okay. Ms. Capolino, one
3 question. On the revised schedule that you provided, there
4 is an entry for Mr. Wang in his deposition dated today. I
5 assume that's just kind of a placeholder for a designation.

6 MS. CAPOLINO: Yes.

7 JUDGE JOHNSON HINES: That the parties do not
8 intend to read the designations is my point.

9 MS. CAPOLINO: Yes. That was part of the
10 proposal that I was going to address a little later.

11 JUDGE JOHNSON HINES: Okay. The "not reading"?

12 MS. CAPOLINO: No, not reading.

13 JUDGE JOHNSON HINES: Okay, good. All right.
14 So we can get an update on that by tomorrow
15 morning.

16 With respect to Mr. Alarcon, I'd like to hear
17 from Respondents.

18 MR. McCRUM: Your Honor, I don't think this is
19 going to be an issue, actually. The concern that we have is
20 that there is a dispute on secondary considerations and
21 Complainants will not be introducing that evidence until
22 after Mr. Alarcon has already testified.

23 So he is not going to actually be able to see
24 that evidence come in. And we're not even sure how much of
25 it is going to be coming in. That will be Complainants'

1 strategic decision.

2 So it's kind of like we're shooting in the dark a
3 little bit when he testifies. Now, of course, we have seen
4 Complainants' prehearing brief. We are planning to have
5 Mr. Alarcon address secondary considerations. But just to
6 be clear, the proposal is not to wait and have him come back
7 and address that in its entirety. We're going to do our
8 best.

9 The only thing that we are asking, Your Honor, is
10 to reserve the right to call him if there's an unexpected
11 event where additional secondary considerations evidence and
12 issues come up that he could not predict were coming in, and
13 we want to reserve the ability to address that, Your Honor.

14 I don't know that we need to spend time on this
15 right now. It might be something that we could push until
16 later and see how things unfold, but that is the issue, Your
17 Honor.

18 JUDGE JOHNSON HINES: All right. And I agree
19 with you. There is no need to make a decision on this now.
20 And so I won't.

21 Ms. Capolino, is there anything else? I think I
22 got the issues that you raised, but is there anything else
23 that we need to discuss with respect to witness scheduling
24 and timing?

25 MS. CAPOLINO: No. I think that's it on witness

1 scheduling, besides the proposal for Mr. Wang's deposition
2 designations, you know, if you would like me to address that
3 now or later or put it off until we decide about --

4 JUDGE JOHNSON HINES: Yes, yes.

5 MS. CAPOLINO: Understood.

6 JUDGE JOHNSON HINES: We can address the issue of
7 Mr. Wang's deposition designations at the same time that we
8 address whether he will appear remotely or not. So let's
9 discuss that tomorrow morning.

10 All right. Next issue as I see it then is
11 stipulations. There's a stipulation on accused products. I
12 think one of the questions may be getting those admitted,
13 getting the stipulations admitted as joint exhibits. In my
14 opinion, that's unnecessary. The stipulations have already
15 been filed. So they are already there and in the record.
16 They can be referred to in that way.

17 A question for you all: Has there been a
18 stipulation on importation?

19 MS. CARLAN: There has not been a stipulation
20 from Respondents on importation.

21 JUDGE JOHNSON HINES: All right. And
22 Respondents, why not?

23 MR. MCCRUM: Your Honor, we did entertain a
24 stipulation and we were trying to negotiate that in good
25 faith. And we had asked for something in return on the

1 prior art that we thought was very reasonable. I think the
2 negotiations just kind of fell apart and that's why we don't
3 have one. I don't think it is going to be an issue that's
4 going to be getting a lot of air time or that, quite
5 frankly, is going to be -- I can't speak for both
6 Respondents, Your Honor, but --

7 JUDGE JOHNSON HINES: All right. Mr. Moehringer.

8 MR. MOEHRINGER: Your Honor, I don't think there
9 is any major issues with the small exception of the fact
10 that they have accused -- the accused products are defined
11 as both the ring and the app. And the app was not imported.
12 But other than that, I think, you know --

13 JUDGE JOHNSON HINES: Then you wouldn't stipulate
14 to importation of that.

15 MR. MOEHRINGER: Exactly.

16 JUDGE JOHNSON HINES: Right. I would like the
17 parties to discuss an importation stipulation and see if you
18 can agree to one now. If you can't, I can't make you, but
19 I'd like you to at least consider it.

20 Is there anything else on stipulations that we
21 should discuss?

22 MS. CAPOLINO: No, Your Honor.

23 So there is one matter that we wanted to bring to
24 your attention in the exchange stipulation, which is about
25 how we are proposing to or how we have agreed to handle NEXT

1 advocates presenting in this hearing, where our proposal is
2 that NEXT advocates will get 15 extra minutes for their
3 presentations.

4 JUDGE JOHNSON HINES: All right. Respondents,
5 you agree with that?

6 MR. McCRUM: In principle, absolutely, Your
7 Honor. We want to promote that. We are going to promote
8 that this week. I thought there was a cap that it wasn't
9 each time a NEXT advocate got up, they get an extra 15
10 minutes.

11 I thought we had like -- unless I am mistaken, I
12 thought it was a 15-minute extra time total -- 30 minutes,
13 I'm sorry, 30 minutes, Your Honor. But in theory, I have
14 absolutely no issue with granting more time to NEXT
15 advocates.

16 JUDGE JOHNSON HINES: All right. So a question
17 on that. Is it more time for the NEXT advocate or more time
18 for the party that presents the NEXT advocate because those
19 are different things?

20 MR. McCRUM: I don't know that -- I have been
21 asking myself that question, Your Honor. I think it
22 ultimately ends up being more time for each party, so they
23 benefit, so then it begs the question, we only have so much
24 time, right, so where are we going to get that?

25 I think that the way that things have worked is

1 that the allocations of time come in under the total
2 allotment for the five days that we have, Your Honor. So it
3 would just spill over into that extra time that has not been
4 yet accounted for yet --

5 JUDGE JOHNSON HINES: All right.

6 MR. MCCRUM: -- is my understanding.

7 JUDGE JOHNSON HINES: I mean, subject to the
8 total time we have available for trial, I don't have any
9 problem with providing extra time for parties that have NEXT
10 advocates perform significant tasks during the hearing. My
11 experience so far has been it has been unnecessary. My
12 experience so far has been that NEXT advocates are
13 incredibly well prepared and don't need extra time or the
14 help of someone more senior.

15 Maybe that will be different here, but my
16 experience in the hearings I have had before is that has
17 been the case. So when you all provide me your time totals
18 every morning, I agree, if the parties have agreed to extra
19 time for the case in total for NEXT advocates, put it in the
20 column, we can keep that going with the running total and
21 see where we are as time goes on.

22 MR. MCCRUM: That makes sense to us, Your Honor.

23 JUDGE JOHNSON HINES: All right. Anything else
24 on that? Ms. Capolino?

25 MS. CAPOLINO: No. I think that's it on that.

1 Thank you.

2 JUDGE JOHNSON HINES: Okay. Mr. Whitney,
3 anything?

4 MR. WINSTON: The Staff is fine with Your Honor's
5 proposal.

6 JUDGE JOHNSON HINES: All right. And we're going
7 to have to see what the going on with the microphones. We
8 will do that during the break.

9 All right. Those were the items that were
10 presented this morning. For the Respondents, are there
11 other items that we should discuss?

12 MR. McCRUM: There are a few evidentiary issues
13 that came up last night, Your Honor, in the exchange of
14 demonstratives and exhibits. One is -- one of the issues
15 relates to Complainants' infringement expert,
16 Dr. Sarrafzadeh, and his demonstrative evidence. I don't
17 know what Your Honor's preference is, if we address that now
18 or wait until he goes up or we address it during the course
19 of his examination, but that's one issue.

20 And I think we have another issue with Mr. von
21 Badinski, it is a demonstrative issue, an exhibit issue for
22 one of the named inventors, Mr. Curt von Badinski. So we're
23 prepared to address those this morning if Your Honor would
24 like us to.

25 JUDGE JOHNSON HINES: Thank you. So my

1 preference on objections to both demonstratives and exhibits
2 that will be used during the testimony of a witness is to
3 address those objections before the witness gets on the
4 stand. So immediately before the witness is called, we can
5 address those objections.

6 I don't want the witness on the stand listening
7 to the back-and-forth on the objections so we can address
8 them before and in the context of what we will then hear, so
9 not now, but before the witnesses go up.

10 MR. MCCRUM: With that, Your Honor, I don't think
11 we have any other issues on Respondents' side this morning.

12 JUDGE JOHNSON HINES: Okay. Anything from the
13 Staff?

14 MR. WINSTON: No issues for the Staff, Your
15 Honor. Thank you.

16 JUDGE JOHNSON HINES: All right. I have a few
17 more things. For exhibits, what I would like is for the
18 parties to provide a list of exhibits that they would move
19 the admission of from the day before, the following morning.
20 And we can address them before we resume testimony in the
21 morning. All right?

22 I would like to do that as we go along, so that
23 we don't end up at the end with the entire pile of exhibits.
24 My intention is to close the record at the end of the
25 hearing. So getting the exhibits in as an important part of

1 that and getting them in every day.

2 The last thing I have is post-hearing briefs.
3 The dates are set in the procedural schedule. I would like
4 the parties to meet and confer and propose word limits for
5 the post-hearing briefs and the post-hearing reply briefs.
6 I would like you to be reasonable.

7 I do word limits because I find pictures helpful
8 so just so you know. In the next couple of days but I would
9 like to get that set before we close the record.

10 All right. If there is nothing else, then I
11 think we can move on to the hearing. I understand all
12 parties are going to do an opening, so we will start there.

13 MS. CARLAN: May I proceed, Your Honor?

14 JUDGE JOHNSON HINES: Yes, please.

15 MS. CARLAN: Thank you.

16 (Video played.)

17 MS. CARLAN: It has been described as phenomenal
18 and magic, and it looks like regular jewelry. It looks like
19 something normal that you would just wear but it is packed
20 full of amazing technology. And it provides deep insight
21 into your health, your wellness, sleep, activity, and
22 recovery.

23 In the purest form of how it works, it shines
24 light into your finger and that accesses your health
25 indicators, like your heart rate, your blood oxygen level,

1 and then the data that the ring senses, it gathers it all
2 and it is processed using algorithms. And then this
3 information is displayed to the user through Oura's app.

4 The data is powerful. It allows you to
5 understand the trends in your health, how you're doing each
6 day, and it can take the user to a new level, where you're
7 significantly improving and changing your life.

8 The Oura Ring is always paired with the app.
9 They go hand in hand together. It is one product. It is a
10 full solution. There is no way to use the app without the
11 ring and there is no way to use the ring without the app,
12 unless it is just a plain piece of jewelry.

13 The design and the impact of the Oura Ring has
14 been recognized over and over through the years. In 2020,
15 it was named as one of Time Magazine's inventions of the
16 year. Oura created the smart ring market and is the world
17 leader in this technology and also in this form factor.
18 Oura has been credited with single handedly creating the
19 Smart Ring category of smart wearable devices and as of
20 today, Oura has sold more than 2.5 million rings since
21 inception.

22 Oura Ring, Inc. is located and headquartered in
23 San Francisco and it has a San Diego R&D facility. Oura
24 Health Oy is located in Finland. Almost all of the C-suite
25 folks, including CEO, are located in San Francisco in the

1 United States and they are employed by Oura Ring.

2 The company is run out of the United States.

3 More than half of Oura's employees are located in the United
4 States.

5 And the majority of the Oura Ring sales are in
6 the United States. But even with this heavy U.S. presence,
7 Oura cherishes and really preserves and places a high value
8 on its finished roots. You're going to hear about this.

9 Most of the -- this is because Finland really
10 places a value on health and wellness and with the darkness,
11 everyone needs to really make sure that they take care of
12 themselves and they do. Finland is ranked as the happiest
13 country on the planet earth.

14 So Oura's only product is the ring. Every
15 activity that Oura does and every investment that Oura makes
16 is related to this ring. Every single person working at
17 Oura is working on something related to this ring.

18 And the mission at Oura is to empower people with
19 their health and wellness journey. You'll hear that Oura
20 has a significant domestic industry in the United States,
21 both qualitatively and quantitatively. Oura has made
22 significant investments in labor, in equipment, in
23 facilities.

24 Oura also has U.S. patents. And, actually, Oura
25 has a lot of U.S. patents. Today we will be only focusing

1 on one, and that is U.S. Patent 11,868,178. Oura acquired
2 this IP that led to this patent through a purchase of a
3 company called Proxy for \$165 million. Oura then later
4 filed the patent application that led to the '178 patent.

5 The '178 patent with its priority back to 2013
6 relates to a certain structural design of a Smart Ring that
7 does sensing. And it uses an outer housing, inner housing
8 and all of the components are fit within those two
9 structures.

10 The patent claim 1 claims this structure in a
11 particular way, with things like the external housing
12 component, the internal housing component that Your Honor
13 heard about at the Markman back in August and then, of
14 course, the battery and printed circuit board put in there
15 in a certain configuration and then, of course, the sensors
16 for acquiring the data.

17 So you will hear from Curt von Badinski who is
18 currently a consultant for Oura and is one of the inventors
19 that came up with the concept. He is the person who came up
20 with the original concept and design. And that's what's
21 captured in the patent.

22 He had the idea of creating a smart wearable. It
23 was actually inspired by his brother's wedding ring. He
24 wanted it to be elegant and simple. He created his own
25 company and he had his own company at the time and then he

1 had others join him, including the other named inventors.

2 Mr. von Badinski wanted to create something that
3 was unobtrusive, something that you could wear all the time,
4 especially while sleeping. Something that was comfortable.

5 This design couldn't be really too wide or he
6 felt like women wouldn't be able to wear it. It also
7 couldn't be too thick or else you had trouble closing your
8 hand or it would interfere with the next finger. So they
9 said internally it really shouldn't look like a Superbowl
10 ring.

11 What he did at the time was he sold his truck, he
12 cashed out his 401(k) and then he spent that money to build
13 prototypes and to invest in patents. These guys made a lot
14 of sketches. They had a lot of meetings. They searched for
15 partners. They made their own flexible circuit boards from
16 scratch and they raised money.

17 And after all of that, Mr. von Badinski and his
18 partners brought a ring to market under their company name,
19 Motiv, back in 2017. Meanwhile things were happening in
20 Finland. In 2013, there were folks who founded Oura in
21 Finland. And they really wanted to develop a Smart Ring
22 that would focus on health and wellness and sleep, again,
23 going back to the Finnish roots.

24 Their first ring shown here as Gen. 1 was
25 released in 2015, it kind of did look like a Superbowl ring.

1 It had a battery on the type and it was like the prior art
2 you will see but with further R&D, R&D was -- Oura was able
3 to engineer and work on this for several years and they came
4 up with the next Generation 2, which fit all of the
5 components inside the ring in this elegant form factor and
6 that's the silver ring here on the screen, Gen. 2.

7 So Oura continued to develop and improve its
8 technology. It launched the Gen. 3 ring in October '21.
9 And then in October of this year, just recently, Oura
10 launched the fourth generation ring.

11 Now we will hear a lot about these rings. The
12 Oura Ring, Gen. 3 and Gen. 4, practice the '178 patent with
13 the inner and outer structure and the battery, printed
14 circuit board and all the other components fitting inside
15 this structure. The inner housing of the Oura Ring, Gen. 3,
16 was made of epoxy or potting material to enclose the
17 components.

18 So unfortunately while the Oura Ring had a lot of
19 customers, a lot of notoriety, loyal followers, media
20 attention, investors, that also, of course, attracted
21 copycats and, in particular, copycats from overseas.

22 So that's, of course, why we're here today.

23 Ultrahuman, for example, primarily is based out
24 of India and they import rings into the United States. You
25 will hear that Ultrahuman knew about Oura long before making

1 its ring. And not surprisingly, the Ultrahuman ring looks a
2 lot like the Oura Ring.

3 And it infringes. It infringes the asserted
4 claims 1, 2, 12 through 14 of the '178 patent. This is a
5 pretty straightforward case of infringement. Just like the
6 Oura Ring in the '178 patent, the Ultrahuman ring is a
7 finger-worn device with an external housing component,
8 internal housing component and then the battery and circuit
9 board are disposed as the patent claims. The sensors are
10 also configured exactly as required by the patent.

11 The outer ring for Ultrahuman is made of
12 titanium, which is the same as Oura. And the inner ring
13 here is made from epoxy. Same as Oura.

14 Now, RingConn, RingConn is based in China and
15 imports its rings into the United States as well. And we
16 will show that RingConn knew about the Oura Ring before
17 making their own as well. RingConn formed its company in
18 2021 and launched its product quickly thereafter in 2023.

19 RingConn also uses the inner and outer ring
20 design with the components exactly as claimed in the '178
21 patent. RingConn uses metal for its external housing and
22 epoxy for its internal housing. And all of that encloses
23 the components.

24 Now, what you will hear from Respondents in this
25 investigation is a lot of what we have heard before. In the

1 past, they tried to argue that the claims of the '178 patent
2 don't capture potting material that conform the housing,
3 like the inner housing, and they made that argument in claim
4 construction proceedings and they lost their claim
5 construction arguments.

6 Having lost those arguments, their remaining
7 non-infringement positions are most of them are different
8 ways to litigate this whole claim construction idea. We're
9 going to hear again about potting material, we're going to
10 hear about cavity, we're going to hear about a lot of things
11 we heard before. We're also going to hear that these claims
12 don't cover the embodiments that were within the '178
13 specification.

14 They do have one new argument, I believe. But
15 that wasn't in their expert report. And we will address
16 that.

17 So in order to combat the willful and knowing
18 infringement by Respondents, Oura brought this case here to
19 the International Trade Commission for help and we have a
20 number of folks who will testify. Mr. Michael Chapp is the
21 chief operating officer of Oura. He will provide insight
22 regarding the history of Oura and also the Oura Ring and the
23 current operations of the company.

24 We have heard already about Mr. Curt von
25 Badinski. And he will testify about making the invention of

1 the '178 patent.

2 Dr. Majid Sarrafzadeh is distinguished professor
3 and Levi Knight Endowed Chair For Innovation at UCLA.
4 Dr. Sarrafzadeh will walk us through the patented
5 technology. He will map out the infringement of the accused
6 products. He will map out the technical prong of the
7 domestic industry, and he will describe the copying by
8 Respondents.

9 Dr. Tajana Rosing is the distinguished professor
10 and Fratamico Endowed Chair in the Department of Computer
11 Science Engineering and Adjunct Distinguished Professor in
12 the Department of Electrical and Computer Engineering at the
13 University of California, San Diego.

14 Dr. Rosing will describe the state of the art at
15 the time of the invention. She will describe the validity
16 of the asserted patent and she will testify regarding
17 several of the secondary considerations of non-obviousness
18 that will be presented in this hearing.

19 Ms. Carla Mulhern is an economist with the
20 Analysis Group. She has extensive experience in the
21 economic aspects of 337 investigations. She will describe
22 Oura's domestic industry economic prong and its significant
23 investments in the United States. And she will also
24 describe the commercial success of the Oura Ring.

25 Finally, she will testify regarding the

1 appropriate bond, remedy, and the economic aspects of public
2 interest in this matter.

3 Respondents, of course, have their witnesses too.
4 You will hear from first Michael Strasser, who is a
5 disgruntled former Motiv CEO. I think what you will hear is
6 that he will try to discredit Oura.

7 Ultrahuman and RingConn will also testify as to
8 what -- why they think they should be excused from their
9 infringement. Respondents will have their only expert,
10 Mr. Alarcon, address multiple aspects of this investigation
11 but not all of them. You won't hear from him on public
12 interest.

13 So through him, Respondents will address their
14 non-infringement positions. We expect him to argue that the
15 '178 patent claims something that has never -- claims
16 something that has been disclosed before, but -- and they
17 will argue that it is obvious.

18 Respondents will come here in 2024 and present
19 prior art in a very classic hindsight way. They are going
20 to cobble together a bunch of different references to try to
21 build what was invented back in 2013. And you'll hear from
22 Oura's witnesses as to why that's wrong. And there was no
23 motivation to build the ring the way it is claimed.

24 Also, I have to discuss the fact that the
25 Respondents will probably rely heavily on the recent

1 decisions at the PTAB or at least that's what it appears
2 where they're going. This is not relevant to this
3 investigation. It is not appropriate here. And, you know,
4 they shouldn't be asking Your Honor to delegate her decision
5 to the PTAB.

6 But what we can do is we can look at some of the
7 references that we believe that Respondents will be relying
8 on the most. So the differences between the claimed
9 invention and the prior art are vast and significant. None
10 of these prior art references are the elegant, compact form
11 factor that's claimed by the '178 patent.

12 In fact, most of these we will see have these
13 protrusions coming out of them. They have external
14 elements. They could have, like, an external mounted
15 circuit board, and some of these devices -- some of these
16 devices are not even finger-worn. Webster here is a vaginal
17 insert.

18 Also some of these references, like Asada, were
19 already in front of the Patent Office when the Patent Office
20 was reviewing the '178 patent. And, of course, the '178
21 patent was found patentable.

22 So even if Respondents do and could make out some
23 sort of case of obviousness, there are very strong secondary
24 considerations in this case. Oura will show there is
25 commercial success, copying, failure of others, long-felt

1 need, and industry praise.

2 So starting with commercial success, this ring is
3 a huge commercial success. Oura has sold more than a
4 million of these rings just since October 2021. And 2.5
5 million total since inception.

6 And the sales of this ring are really driven by
7 the desire for this particular, elegant ring form factor.
8 We will also discuss copying. Respondents copied the Oura
9 Ring and Oura has publicly stated, okay, we're fine with
10 competition. It keeps us on our toes. It keeps us
11 innovating, keeps us working. The whole market moves
12 forward with competition. We welcome it.

13 But Oura does not welcome or appreciate someone
14 copying and violating its intellectual property. Now,
15 failure of others: Others did try to make some smart
16 wearable devices in the form of a ring. And here is one
17 example from the prior art.

18 It was hard to get these components into this
19 ring. The result was kind of this mess that no one would
20 wear. And this is one of the problems that Mr. von Badinski
21 and his coinventors set out to overcome.

22 Long-felt need: As shown by the concerns of
23 people before 2013 and then also verified by the
24 satisfaction that users expressed with the Oura Ring once
25 they had it, there was clearly a long-felt need for a smart

1 wearable that could provide 24-hour monitoring, was
2 comfortable, you could sleep in it, and it looked nice, so
3 you could really wear it anywhere. And it also wasn't
4 distracting or bulky.

5 And the Oura Ring met that need. And as we saw
6 earlier, Oura's product has received an incredible amount of
7 industry praise. And this slide just shows some quotes. It
8 is just a fraction of the commentary that's out there,
9 praising the Oura Ring and this invention.

10 Now, finally, there is the public interest in
11 this case. The Commission has delegated the authority to
12 Your Honor to recommend a determination. Oura Ring -- I'm
13 sorry, the Respondents won't be able to show any of the --
14 any negative effects of the remedial order here.

15 If Respondents can't import into the United
16 States, there are many alternative smart wearables in both a
17 ring form and in other forms, even some without a screen.
18 All of these are similar in that they monitor health and
19 wellness metrics.

20 So based upon the Respondents violation, Oura
21 requests an injunction -- I'm sorry, requests a limited exclusion
22 order, a cease and desist order, and a bond.

23 Thank you, Your Honor, for your time. We look
24 forward to presenting our case.

25 JUDGE JOHNSON HINES: Thank you very much.

1 You all didn't know you were going to get
2 serenaded.

3 MR. McCRUM: It is very good, actually, put my
4 mind at ease.

5 Good morning, again, Your Honor.

6 JUDGE JOHNSON HINES: Good morning.

7 MR. McCRUM: Ryan McCrum from Jones Day on behalf
8 of the RingConn Respondents. And I am going to be giving
9 the first set of opening remarks on behalf of the
10 Respondents.

11 Now, we have obviously just heard Complainants
12 opening statement. And as Your Honor probably knows better
13 than anybody in the room, there is always two sides to every
14 story. And I am here to introduce the other side of that
15 story, Your Honor.

16 And I am going to start with where this case
17 began and where it is now. And I think Your Honor will see
18 that this case is not nearly as bright and rosy as
19 Complainants would like to believe.

20 Complainants own at least 17 granted patents from
21 the '178 patent family alone. And they own a bunch of
22 others, Your Honor. They originally asserted three patents
23 and 30 total claims in this investigation. The three that
24 are asserted here presumably among their best, Your Honor.

25 Now, Respondents have been chipping away at those

1 three patents and those 30 asserted claims. In fact, after
2 Respondents submitted and exchanged their contentions on
3 infringement and invalidity, Complainants had to gut the
4 vast majority of their case, Your Honor.

5 What's left in this investigation is one patent
6 and one independent claim. That's where we are, Your Honor.
7 And despite what you heard from Complainants' counsel on
8 that one independent claim and few dependent claims, things
9 don't look very good for Complainants.

10 Now, the PTAB, for example, they just instituted
11 PGR proceedings for all of the asserted claims. And, Your
12 Honor, we're not going to ask that you supplement your
13 duties to the PTAB.

14 But it legitimizes the invalidity defenses.
15 Ultimately it's Your Honor's decision. And, in addition,
16 for those few claims that remain, the Staff's current
17 position is that on both infringement and invalidity, it is
18 a close call.

19 That's where we are. Complainants have stripped
20 away two patents and 25 asserted claims to get to the point
21 where they have a handful left where the issues are close
22 calls on both infringement and invalidity. Now, we
23 respectfully disagree with the Staff that those are close
24 calls, but we only have to win on one of them.

25 And the overwhelming evidence is going to

1 establish that there is no violation here, Your Honor.
2 There are three separate reasons why. First, we don't --
3 the Respondents do not infringe. Second, the asserted
4 claims are invalid and, third, the Complainants cannot
5 establish a protectable economic domestic industry.

6 I am going to start with Respondents'
7 non-infringement arguments. They are compelling, Your
8 Honor. The reason why they are so compelling is because
9 Complainants' infringement theories amount to a classic
10 example of trying to fit a square peg into a round hole.
11 The accused products, the metaphoric square peg, are
12 fundamentally different from the asserted claims which are
13 the metaphoric round hole.

14 Let's take a look at the first two limitations of
15 claim 1. As you can see here, it recites an external
16 housing component and an internal housing component; two
17 housing components.

18 The term "housing component" has been construed
19 to mean plain and ordinary meaning, which is
20 internal/external structure that encloses space and which
21 does not necessarily exclude potting material. So there has
22 to be two enclosing structures.

23 So how are the accused products different?
24 Fundamentally different? It's actually pretty simple, Your
25 Honor. The accused products are single enclosure

1 embodiments that have at most one housing component. In
2 contrast, the asserted claims are directed to double
3 enclosure embodiments.

4 And this is very important, Your Honor. It's not
5 just this fundamental difference that brings the accused
6 products outside the scope of the claims. It is because of
7 that fundamental difference that so many claim limitations
8 are missing from the accused products.

9 I just wanted to show Your Honor a few examples
10 of single versus double enclosure structures. The top image
11 is of the RingConn accused products. You can see here in
12 these CT scan images, there's only one enclosing structure.

13 The bottom figures are of one of Oura Ring's
14 products. You can see very clearly there, that is a double
15 enclosure structure. It has a metallic outer housing and
16 inner housing and it has components in between.

17 Next figure, please. Next slide, thank you.

18 Let's look at one of the double enclosure
19 embodiments that is shown in the '178 patent. That's Figure
20 15, Your Honor. And you can see it has an external housing,
21 1514 and it has an internal housing, 1512, and they are both
22 shown in green here. It also has a cavity as required by
23 the claims, shown in pink. And it has components 1550 in
24 blue that are positioned and shaped in size to fit within
25 that cavity.

1 There is a number of double enclosure embodiments
2 disclosed in the '178 patent, Your Honor. This is another
3 example, Figure 16. It describes an inner wall, 1612, an
4 outer wall, 1614, and components that are shaped in size to
5 fit in a space that is formed between those inner and outer
6 walls.

7 The first prototype of the '178 patent was also a
8 double enclosure structure, Your Honor. The original owner
9 of these patents, a company named Motiv, they developed the
10 product here. They also are the original owners of these
11 patents. The patents were not invented by Oura. They
12 bought these patents, Your Honor.

13 And this is the first product that was made
14 pursuant to those patents. And as you can once again see,
15 it has an internal housing component, an external housing
16 component, and a cavity.

17 Next slide, please.

18 And here, again, is the Oura double enclosure DI
19 product, Your Honor. Now, I mentioned that the accused
20 products are fundamentally different than what is claimed.
21 And the reason for that is, as I said, they are directed to
22 single enclosure embodiments.

23 And I want to talk first and show you some images
24 of the RingConn product. Here, again, you can see there's
25 only one enclosure. I don't think you have seen the

1 Ultrahuman product yet, Your Honor, so let's go to the next
2 slide, please. It too has a single metallic housing.

3 And both of Respondents' products there is just
4 no opposing internal housing component that performs any
5 enclosing structure. The potting material fills that
6 channel, Your Honor.

7 Next slide, please.

8 Now, the '178 patent discloses embodiments that
9 are not claimed, Your Honor, and you heard counsel for
10 Complainant talk about how Respondents, at least, suggesting
11 Respondents are reading embodiments out of the claims.

12 There's no dispute here, Your Honor, that there
13 are embodiments disclosed that are unclaimed. Complainants
14 are actually asserting that there are certain embodiments
15 disclosed and not claimed. Figure 16, for example.

16 So this idea that we're somehow reading out
17 embodiments, Your Honor, both parties fully recognize what
18 is very common. As Your Honor probably, again, knows as
19 well as anyone in the room, patent claims don't always cover
20 every embodiment and that is the case here, Your Honor.

21 And an example of an unclaimed embodiment is
22 Figure 13. Now, Complainants are going to try to convince
23 Your Honor that this is an embodiment of the claims. It is
24 not. The reason, it is one of these single enclosure
25 embodiments, not the double enclosure.

1 The specification refers to this with only one
2 reference to a housing, the external housing.

3 Next slide, please.

4 Now, as I noted earlier, Your Honor's
5 construction construes internal and external housing
6 components as structures that enclose space. And in Figure
7 13, there is only one set structure. How do we know that?
8 This is a really important part of the specification.

9 The '178 patent tells us expressly that there is
10 only one housing component in Figure 13. It says
11 unambiguously right here that the external housing, 1312, is
12 what defines the partially enclosed internal space, 1312.
13 Partially enclosed is very key here, Your Honor. It
14 intentionally refers to space 1320 as being only partially
15 enclosed because there's nothing on the other side of
16 external housing 1312 that fully encloses that space.

17 Now, there is internal potting here, Your Honor.
18 And that's also important because despite the fact that
19 there's internal potting in Figure 13, it fills that space,
20 it doesn't say -- it still says that space is partially
21 enclosed.

22 I think this excerpt is something that really is
23 key here, Your Honor. The fact is, if we can go to the next
24 slide, please, the Complainants have other granted patents
25 that are directed to single enclosure embodiments. U.S.

1 Patent Number 11,188,124 is one of them. It is actually
2 being asserted against RingConn in Delaware.

3 And as Your Honor can see here, the '178 patent,
4 it requires two housings. It's expressed in the claim. And
5 contrast, in the '124 patent that is asserted in Delaware,
6 it only recites one housing. And instead of claiming two,
7 the '124 patent claims a potting material encapsulating the
8 components.

9 The Complainants have their single enclosure
10 patent, Your Honor. They have that patent with potting
11 material. And they are already asserting RingConn of
12 infringing it. What they are doing here is they are trying
13 to get a second bite at the apple by asserting their double
14 enclosure patent against single enclosure products.

15 All right. I am going to move on to the
16 non-infringement defenses, Your Honor. And what I am going
17 to say at the outset is whenever anybody tries to force a
18 square peg into a round hole, a number of things tend to
19 happen.

20 And I think it is very important to keep a
21 lookout for these things as the investigation proceeds. The
22 first thing that starts happening, and it is happening here,
23 is that Complainants are reading limitations out of the
24 claim. And they have to start shaving the corners off of
25 this peg in order to try to make it fit.

1 The second thing that you're going to see, Your
2 Honor, is that the infringement theories keep changing.
3 Here Complainants' infringement theories have been a moving
4 target. I actually think you're going to see a brand new
5 one come into evidence this week, Your Honor.

6 Finally what Complainants are left arguing after
7 reading out limitations, after changing their positions, it
8 is something that is totally unrecognizable to the '178
9 patent. Here are the summary of key limitations that are
10 missing from Respondents' accused products. And I am going
11 to go over each of them briefly.

12 Now, I talked already about the internal housing
13 component. It is Number 3 here. So I am going to start
14 with cavity. I am going to come back to that.

15 So if we could have the next slide.

16 The term "cavity," it has been construed as a
17 hollow space. And the evidence is going to show that none
18 of the accused products have a hollow space. This
19 non-infringement argument, Your Honor, is the cleanest, it
20 is the most straightforward, and it is the simplest. It is
21 very compelling.

22 You can see very clearly in the pictures of
23 Respondents' products, there is no hollow space here at all.
24 You will never see one in this investigation. And the
25 U-shaped channel formed by the metallic housing, it is

1 entirely filled.

2 Next slide, please.

3 Slide 24 is another image of Respondents' accused
4 products showing there is no hollow space. These rings are
5 solid. And they are made intentionally solid. The
6 manufacturing process that is used to make these makes sure
7 there is no voids in it, Your Honor.

8 And interestingly, while the Staff asserts that
9 the accused products have a cavity, the Staff never uses the
10 term "hollow" in their prehearing brief, except when
11 reciting Your Honor's claim construction. I think that's
12 telling, Your Honor.

13 Complainants' counsel didn't mention the cavity
14 today. I don't think they want to give this limitation much
15 air time. The reason neither the Complainants nor the Staff
16 are going to be able to point to anything hollow in
17 Respondents' accused products.

18 The way that their expert deals with it, Your
19 Honor, is to write the term "hollow" completely out of the
20 claims. And, of course, that is improper.

21 Let's look at what Complainants argue is the
22 cavity. They say it's this yellow line surrounding and
23 encircling the battery in the PCB. That's the alleged
24 cavity right there, Your Honor. And I talked about how
25 Complainants' infringement read gets so strained that it is

1 becoming unrecognizable to the '178 patent. This is an
2 example of it, Your Honor. You're not going to see anything
3 that remotely resembles this cavity in the '178 patent.

4 In fact, when you look at the hollow spaces that
5 are disclosed in the '178 patent, they are actually hollow
6 spaces. They are not these gerrymandered yellow lines
7 around components, Your Honor.

8 Next slide, please.

9 I think what might be most fatal to Complainants'
10 cavity argument is that they admit that the area circled in
11 yellow isn't hollow. Dr. Sarrafzadeh, Complainants'
12 infringement expert, expressly stated the battery fully
13 occupies the cavity. He admits there is no hollow space.

14 How does he try to deal with that? You can see
15 it right here, Your Honor. He says "if the components were
16 to be removed from the solidified structure," he calls it a
17 solidified structure -- if they would be removed from the
18 solidified structure, there would exist a hollow space.

19 Now, there's a lot of problems with that, Your
20 Honor. First, for purposes of infringement, we can't alter
21 the product to make it infringing. That's not how patent
22 law works.

23 The second is that if you remove these
24 components, the PCB and the battery, those are two claim
25 limitations in the claim, Your Honor. So the products

1 become non-infringing for another reason.

2 Lastly, what Complainants point to as the alleged
3 hollow space, it never exists as a hollow space. Never,
4 Your Honor. So you're not going to hear about anything that
5 is ever hollow in this case at all.

6 The area that is defined as the alleged cavity
7 only comes to exist after the components are placed on the
8 metallic substrate and potting material is applied. And as
9 I said, Your Honor, the net result here is that Complainants
10 have to read out the term "cavity." They have to read out
11 Your Honor's construction, hollow.

12 So that's the first key limitation that is
13 missing from the accused products, Your Honor. And the
14 second is the one requiring that the battery be positioned
15 and of a shape and size configured to fit within the cavity.
16 The express language of claim 1 requires that the cavity
17 exist and be independent of the battery and other
18 components. This is also very important.

19 And the reason, Your Honor, is that you might
20 recall that you raised this issue at the Markman hearing.
21 Your Honor asked something along the lines of does this
22 cavity have to exist independent of the battery and the PCB?
23 And I think Your Honor was really on to something because
24 the answer to that question is a resounding yes.

25 How do we know that? The language of the claim

1 makes that clear. The claim says that the battery has to
2 "be positioned within the cavity," and made of a shape and
3 size configured to fit within the cavity. And, as a result
4 of this claim language, the cavity has to exist
5 independently. If the battery is to be positioned and
6 shaped and sized to fit within it.

7 But in the accused products, the alleged cavity
8 does not exist independent of the battery and the PCB. In
9 fact, it's the presence of the battery and the potting
10 material that creates the alleged cavity.

11 And if that's true, Your Honor, and there is -- I
12 will get to this in a moment, there is no dispute that it
13 is. If it is true, the accused battery cannot be positioned
14 in shape and size to fit within something that only exists
15 for the first time after the battery has been positioned and
16 sized and shaped. That is backwards, Your Honor. It makes
17 no sense.

18 So, once again -- next slide, please --
19 Respondents are reading limitations out of the claims. This
20 is how they want -- this is how they wish the claims read,
21 Your Honor. They want them to simply say that the battery
22 is between the internal and external housing components.

23 But the claims require more. And Complainants
24 are not giving meaning to the words "positioned within" and
25 "of a size and shape configured to fit within."

1 Next slide, please.

2 Now, this is important, Your Honor, because in
3 the prehearing brief, Complainants admit that the cavity is
4 created after the battery is placed in the ridge of the
5 metal ring, and the potting material is poured over the
6 components. You can see it right here.

7 The cavity is formed when the battery is placed
8 in the ridge of the external housing component and the
9 potting material is poured over the components, thus,
10 creating the space that is occupied by the battery. That's
11 the cavity. It doesn't come into existence until after the
12 battery has been positioned and sized and shaped.

13 All right. So let's move on to the third
14 limitation, Your Honor. This is the internal housing
15 component, which I already talked about at some length.
16 This is one of the limitations where Complainants have had
17 to change their position over and over again after realizing
18 that their original one was not viable.

19 I am going to walk through this, Your Honor. And
20 the reason why this is important is because it has taken --
21 Complainants have had months and months to figure out what
22 this internal housing component is. And they still haven't
23 figured it out. It has changed and it's changing again at
24 the hearing.

25 For most of the case through contentions and

1 expert reports, Complainants consistently argue that the
2 internal housing component is the entirety of the potting
3 material used in Respondents' accused products. You can see
4 that right here in Complainants' final infringement
5 contentions. That double-sided purple arrow that is the
6 internal housing, it spans the entire thickness of that
7 potting material from the internal surface of the external
8 component all the way to the inside of the ring.

9 That's what they said, Your Honor, in their final
10 infringement contentions. The same argument was carried
11 through by their expert, Dr. Sarrafzadeh. These are images
12 from his expert report, Your Honor.

13 And you see once again these arrows span the
14 entire thickness of the potting material. And that's what
15 they call the internal housing component.

16 Dr. Sarrafzadeh doubled down on this in his
17 expert report. He said the internal molded structure
18 encloses space surrounding the battery, PCB, and other
19 components and, thus, satisfies the internal housing
20 component.

21 He used the word "surrounds," Your Honor. These
22 positions are -- Dr. Sarrafzadeh's positions are entirely
23 consistent with what he originally alleged as the internal
24 housing component in Figure 13 of the '178 patent. I think
25 this is incredibly telling, Your Honor.

1 Figure 13, this is Dr. Sarrafzadeh's own
2 annotations. He will testify that he colored these himself.
3 And what did he call the internal housing component? He
4 colored it purple, all of it, Your Honor, not some portion
5 of it, all of it.

6 I don't think there is any credible debate about
7 what Complainants originally alleged as the internal housing
8 component. Things changed after Respondents filed their
9 Motion for Summary Determination.

10 After that, and during Dr. Sarrafzadeh's
11 deposition, he drew a brand new internal housing component.
12 It is shown right here, Your Honor, on the right-hand side
13 of the slide. He coined this arbitrary portion of the
14 potting material, the crust. It was the first time that
15 Respondents have seen this, Your Honor.

16 Now, you might be asking why -- I will confess
17 there is a little bit of speculation going on here, but I
18 think Respondents realized that the original housing
19 component, the way they drew it, they were running into
20 problems with this limitation in green where the printed
21 circuit board has to be disposed between the internal and
22 external housing components.

23 You see that's not the case on the left, Your
24 Honor. So they kind of conveniently drew the sliver of the
25 potting material and said that's the internal housing

1 component, and now you can see that the PCB is between the
2 two.

3 And I think in all likelihood, that's what
4 motivated that, Your Honor. But this arbitrary portion of
5 potting material, it is not an internal housing component
6 for three reasons, Your Honor. First of all, nowhere in the
7 specification are you going to see anything that looks like
8 this. Nowhere is a portion of the potting material even
9 discussed as anything, let alone an internal housing
10 component, Your Honor.

11 This is another example of where the read has
12 become so strained that it is looking unrecognizable to
13 anything in the patent. Second, Your Honor's construction
14 requires the housing component to enclose space. What is
15 drawn here doesn't enclose anything. It just abuts more
16 potting material.

17 And, third, this theory is inconsistent with
18 Complainants' efforts to save the validity of the asserted
19 patents. In distinguishing the prior art, the Complainants
20 argue that a portion of a unitary structure cannot be a
21 housing component. That's how they were distinguishing the
22 prior art.

23 And yet that's exactly what they are arguing
24 here. They are saying it's just a portion of that potting
25 material that is the housing component. Here is some of the

1 examples of what they said.

2 Respondents simply point to different portions of
3 the same unitary structure, rather than a component. They
4 criticized the Petitioner for identifying sections of the
5 unitary housing as being components. Petitioner's
6 interpretation of Niwa reads "component" completely out of
7 the claims.

8 Niwa, they say, discloses a unitary componentless
9 housing. So on the one hand, Your Honor, for purposes of
10 infringement, they say it's okay for a structure -- a
11 portion of a structure to be a housing component, which is
12 nowhere in the patent, of course, but it's not okay on
13 invalidity. And that, Your Honor, is improper.

14 Next slide.

15 I mentioned, Your Honor, that we're going to see
16 a new internal housing component argument. We got slides
17 from Dr. Sarrafzadeh last night. They don't look like --
18 the internal housing component doesn't look like either of
19 the images on the left and it has been a moving target. And
20 why is that important, Your Honor? As I said, if they can't
21 figure this out by now, there probably isn't an internal
22 housing component.

23 Now, before I move on, I need to stop for a
24 moment and talk about potting material as a housing
25 component. I want to be absolutely clear here, Your Honor.

1 Respondents recognize and are following Your Honor's claim
2 construction.

3 That claim construction simply states that a
4 housing component does not necessarily exclude potting
5 material. It doesn't mean that all potting material is a
6 housing component. It still has to enclose space, Your
7 Honor.

8 There's examples in the patent where you could
9 argue that there -- right here, Figure 12D, 1214 is potting
10 material. I will give them that. That is a housing
11 component. It encloses space. At least in that figure.

12 Figure 13, I'm not giving them that, Your Honor.
13 And the point is counsel said that we're rearguing claim
14 construction. To the extent it wasn't already clear that
15 this housing component fight is still live, it became clear
16 in Your Honor's decision in the Motion for Summary
17 Determination.

18 Next slide, please.

19 Your Honor has already held there are genuine
20 issues of material fact as to whether RingConn's accused
21 products have an internal housing component. And there are,
22 Your Honor. There really are.

23 So that's the third limitation. While we're on
24 this topic of internal housing component, I want to point
25 out something from Complainants' opening, Your Honor, that I

1 think was at least mildly misleading.

2 Can we have CDX-0001.15. Thank you.

3 I want to focus on what Complainants have labeled
4 the inner ring from Figure 8, Your Honor. You can see that
5 this isn't Figure 8, by the way. They say in very light
6 shadowing it is annotated. It is heavily modified.

7 The inner ring here, they show it as a
8 transparent member. And the patent is not transparent at
9 all. I think they are trying to make it look like potting
10 material. It's not.

11 Can you please bring up an actual portion of
12 Figure 8. Can we get those two components side-by-side?
13 So, Your Honor, you can see in the patent, this inner ring
14 is completely solid. You can't see through the outer
15 surface of it.

16 But it has been manipulated to be transparent.
17 And they want to try to compare the figures, not the claims,
18 these modified figures to our product. And I just -- I
19 didn't want you to be misled by that, Your Honor. And,
20 actually, what it's telling me is they are not only
21 rewriting claims, they are starting to rewrite the figures
22 in the patent.

23 All right. Let's move on to the fourth, fifth,
24 and sixth limitations. I know that sounds a little
25 daunting, but I am going to keep it very brief.

1 All three of the printed circuit board, the
2 cavity and the battery, has to be between the internal
3 housing component and the external housing component, Your
4 Honor. If any one of them is not, there's no infringement.

5 Now, the Staff seems to be arguing that the
6 entire potting material is the internal housing component.
7 I think. I don't want to speak for the Staff. I think that
8 the Staff is stuck with Complainants' original position that
9 the entire potting is the internal housing.

10 And if that's the case, the PCB, for example,
11 would not be disposed between the internal and external
12 housing components. And as you can see here, Your Honor,
13 the potting material, which is referred to as the internal
14 housing component, it entirely surrounds the PCB here. It
15 is not between -- so the PCB is not between this alleged
16 internal housing component and anything else. It is
17 entirely encapsulated by it.

18 And respectfully, the Staff is of the mistaken
19 view that the potting material does not completely
20 encapsulate the PCB. But we think the overwhelming weight
21 of the evidence is going to show otherwise. Both corporate
22 witnesses are going to testify this week under oath, Your
23 Honor, and they will testify that potting material surrounds
24 the PCB.

25 And we are going to show, Your Honor, actual

1 samples of accused products so that Your Honor can see with
2 your own eyes how the potting material surrounds the PCB.
3 And if the Staff were to be convinced that potting material
4 completely surrounds any one of these components, I think
5 the Staff's position would be there's no infringement.
6 Again, I don't want to speak for the Staff but that's my
7 understanding.

8 So that's why this evidence is so important, Your
9 Honor, is if we can't establish that I think potentially the
10 Staff would side with Respondents.

11 So these images are particularly helpful, Your
12 Honor, you can see clearly that there is potting material
13 encapsulating or all the way around this PCB.

14 Next slide.

15 CT scans that show the same thing, Your Honor.
16 You can see that the potting material completely surrounds
17 the PCB.

18 Next slide, please.

19 These are just more images, Your Honor, where the
20 potting material is around the PCB. And really there should
21 be no credible dispute that this is the case, Your Honor,
22 because Complainants actually filed another case in Delaware
23 on that '124 patent I talked about earlier.

24 They assert -- the asserted patent there requires
25 potting material to encapsulate the components. Here is a

1 portion of the claim chart that they submitted. This is
2 what they presented to the federal court of -- District
3 Court of Delaware. They said to that Court: Potting
4 material is disposed in the interior space encapsulating the
5 plurality of components, Your Honor.

6 The interior space is defined by the claim as
7 this red rectangle. That's why, Your Honor, there should be
8 no dispute. And I think that's why you see the Staff and
9 Complainants taking different positions on what the internal
10 housing component is.

11 I think Complainants realized that not all of the
12 potting material is -- could be the internal housing
13 component. All right. Lastly, Your Honor, the seventh
14 limitation that is missing from the accused products is that
15 the cavity between outer and inner circumferential surfaces.

16 The only thing I am going to say about that, Your
17 Honor, is that Complainants are taking wholly inconsistent
18 positions on this here and before the PTAB. And I think
19 that's reflected in this slide.

20 So, Your Honor, those are the limitations.
21 That's the summary of the non-infringement defenses. As I
22 mentioned, this is a compelling non-infringement case.
23 Square pegs just don't fit in round holes. I am going to
24 very briefly discuss invalidity.

25 As with infringement, the Staff said this is a

1 close call. We respectfully disagree, but at a minimum the
2 Staff's position demonstrates the legitimacy of these
3 defenses, as does the fact that the PTAB just last week
4 instituted PGR proceedings, Your Honor. Let's look at some
5 of the prior art.

6 These are the figures, Your Honor. As you can
7 see, these are rings with internal and external housing
8 components. And a cavity formed between them for
9 accommodating components. These are anticipatory
10 references, Your Honor, at least if the claims are to be
11 read as broadly as Complainants are reading them.

12 And what's telling, Your Honor, about
13 Complainants' opening is that about, I think, a quarter --
14 no, maybe a third of their slides, eight I think in all,
15 relate to secondary considerations. Eight of their 30
16 slides this morning related to secondary considerations.

17 And I think Complainants are rightfully concerned
18 about the prior art and rightfully trying to spend so much
19 time rebutting the invalidity case.

20 Lastly, Your Honor, Complainants have not carried
21 their burden on the economic domestic industry. The
22 evidence is going to show that there are minimal cognizable
23 investments in the U.S. The products, they are manufactured
24 overseas. And by Complainants' own admission, in videos
25 they display on their websites, the products were developed

1 in Finland, Your Honor.

2 What is done in the U.S., mostly marketing, sales
3 stuff. Very little. And it pales in comparison to what is
4 invested overseas.

5 Your Honor, I respectfully submit that
6 Respondents are going to present very compelling evidence of
7 no violation this week. The evidence is going to bear that
8 out. It is going to come in largely through Respondents'
9 witnesses. And I am going to introduce them very briefly.

10 Each of the Respondents will bring a corporate
11 witness. For RingConn, it is going to be their CEO,
12 Dr. Tony Wu. He traveled all the way from Shenzhen to be
13 here. For Ultrahuman, it is going to be their CEO, Mr.
14 Mohit Kumar. I will let Ultrahuman introduce Mr. Kumar.

15 Both are going to testify about how these
16 products were developed independently and how they function
17 and operate. They are going to correct the factual
18 misstatements that will be offered by Dr. Sarrafzadeh that
19 formed the bases for Complainants' and Staff's infringement
20 theories. And they will absolutely put to rest this
21 unfounded allegation of copying.

22 There is no evidence of it, Your Honor. These
23 rings can -- they are small. They can only be made a
24 certain way. Of course they are going to be similarities.
25 There is -- our CEO will testify about how they have been

1 working on this technology for many, many years.

2 We're going to offer an inventor of the '178
3 patent. He is not disgruntled, Your Honor. He is not --
4 that will not come out. Mr. Michael Strasser, he is not a
5 disgruntled inventor. He is going to offer neutral,
6 unbiased testimony about the invention story and the first
7 products developed under the '178 patent family, very
8 factual.

9 Finally, Respondents will offer Mr. Alarcon. And
10 he will offer opinions on the non-infringement, tech DI,
11 invalidity. We look forward to presenting our case to Your
12 Honor. Thank you very much.

13 JUDGE JOHNSON HINES: Thank you.

14 MR. MOEHRINGER: Good morning, again, Your Honor.

15 JUDGE JOHNSON HINES: Good morning.

16 MR. MOEHRINGER: John Moehringer on behalf of
17 Ultrahuman. I am going to try to be brief and I am not
18 going to go rehash everything that Mr. McCrum just went
19 through but I will try to highlight a couple of specific
20 facts that I think are also important to consider.

21 First, though, I would like to introduce you to
22 Ultrahuman itself. Ultrahuman offers a broad array of
23 products that provide a comprehensive understanding of a
24 user's metabolic health. The actual accused products here
25 is the Ultrahuman AIR Ring, which I am holding up right here

1 and you see up on the screen there as the first wearable.

2 It is one of the lightest and thinnest wearable
3 devices available in the market and allows you to
4 continuously and comfortably monitor things like your sleep
5 and your temperature and your heart rate variation, among
6 other factors.

7 Also accused, as the accused product we mentioned
8 earlier, is the app, which you see up here on the right
9 side. That's a software product. That gets downloaded on a
10 mobile app and it is going to collect data not only from
11 this wearable device, the AIR Ring, but also another
12 wearable device called the Ultrahuman M1, which is a glucose
13 monitor.

14 And other devices that we offer, including home
15 health and blood testing, allowing you to have quite a broad
16 amount of data to monitor your glucose -- your metabolic
17 health.

18 Again, as we mentioned, we do not believe that
19 the app is rightfully part of any remedy consideration
20 because it's not an imported software product and also the
21 accused claim as we have seen is an apparatus claim.

22 Now, I want to also look a little bit about the
23 Motiv portfolio. As we have heard, this is not a case an of
24 an innovator using its own patent to protect its own
25 invention. Oura obtained this portfolio from another

1 company, Motiv.

2 And here is a timeline that shows some of the key
3 points along that acquisition. And we think some of the
4 dates here are important.

5 Oura acquired Proxy on May 9th of 2023. And
6 that's how they got this portfolio. The portfolio had
7 originally gone to Proxy in 2020 for \$1.55 million. Within
8 about two weeks of acquiring the portfolio, Oura prepares
9 these claims and files a patent application for both the
10 '178 and the '179, two patent applications, but they drafted
11 the claims for the '178 that we're talking about here today.

12 And they asked for expedited review of that
13 patent. And they got that expedited review. And the
14 patents issued on January 9th of 2024.

15 And within about approximately two months from
16 that, they instituted suits against all of the Respondents
17 here.

18 So one of the important things that I think on
19 this date is to also consider this against a timeline of the
20 rings at issue. And in this case, we're talking about
21 Oura's rings and Ultrahuman's rings. All of the rings that
22 you see to the left of that were already developed prior to
23 that May 9th date. The Ultrahuman ring, R1, the Ring AIR,
24 and Oura's Gen. 1, Gen. 2, and Gen. 3 were all developed
25 prior to Oura acquiring this technology that it acquired

1 when it purchased Proxy.

2 The only ring that comes after that date is
3 Oura's launch, Ring 4. That one came out on October 15th of
4 2024. That ring is different than every other ring on this
5 timeline. It has two metallic enclosures, all the other
6 rings have one metallic enclosure, as has been discussed.

7 And so let's take a look at the difference
8 between those two rings and how they are being treated by
9 Oura. We see up on the right-hand side here, Oura Gen. 4,
10 that you can see that it has two metallic rings up on the
11 top right-hand side. That is a scan of the Oura Generation
12 4 ring. And it has got two metallic elements on the right.
13 You see one that looks like it is C-shaped. And then within
14 there are the components and there is kind of a flatter
15 metallic ring.

16 And in saying which one are the internal and
17 external housing components, they are pointing to the two
18 metallic rings, the C-shaped one and the flat one. When we
19 come back to Oura Gen. 3 on the left-hand side, you see
20 there is only one metallic ring. It's a C-shaped ring on
21 one side and as has been discussed already, it's resin and
22 potting that encapsulates the rest. And what they are
23 pointing to on Oura Gen. 3 is that resin and now the crust
24 of the resin, as the internal housing component.

25 What is interesting, if we go back to Gen. 4,

1 Gen. 4 has potting as well in it to encapsulate those
2 components that you see in the scan there, but they are not
3 pointing to that as the internal housing component now.
4 They are relying on the express two metallic elements that
5 are now in their Gen. 4 product.

6 So I know the limitations in the components have
7 been gone through a lot, the non-infringement positions, but
8 I do want to just focus and go over a few of the key
9 limitations here briefly. In particular, I am going to talk
10 about the internal housing component, the battery, cavity,
11 and printed circuit board and actually look at the words
12 that Oura chose when they filed that application on May 24th
13 of 2023 and how they are applying it now from an
14 infringement standpoint.

15 First, we will start with cavity. And we saw
16 this when they looked at and their infringement allegations
17 amount to a tracing of our components. They come up with
18 this gerrymandered cavity going over all the bumps and hills
19 and crevices of our components to say that this is the
20 cavity.

21 But this results-driven infringement analysis is
22 improper and it is not consistent with the claim
23 construction, which says that the cavity is hollow space.
24 And, in fact, the evidence you will hear from Mr. Kumar and
25 from Mr. Alarcon will establish that in Ultrahuman's

1 products, there is never any hollow space between the
2 external housing component, this outer ring, and anything
3 that is being alleged to be an internal housing component
4 here, currently the crust.

5 And Oura all but acknowledges this fact and
6 points to the fact that they can try to recreate the space
7 by taking the components out. And we see that in the last
8 sentence, but if the components were removed from this
9 solidified, cured, resin, they would exist a hollow space,
10 but this is nonsensical because you would make the product
11 non-operational and you would actually destroy the cured
12 resin, including that crust that they are pointing to as
13 being the internal housing component.

14 What does the patent say a cavity is? Here we
15 have an example of it, an embodiment of it, Figure 4. And
16 on Figure 4, we see to the left outer wall and inner wall
17 with a space in the middle, a hollow space in the middle.
18 What we're going to do and what they put in there is the PCB
19 and the battery configured and positioned to go in there.

20 And we have -- in this, we have highlighted the
21 battery in purple and the PCB in green. And what you would
22 see was that would go into that hollow space. It is
23 configured to go into that hollow space.

24 But you need the hollow space in order to know
25 how to configure it for it to go in. And we see that

1 limitation over on 1[c] to the right, those words say the
2 battery must comprise a shape and size configured to fit
3 within the cavity.

4 The cavity must exist in order for us to
5 configure the battery in shape and size to fit into that
6 cavity as it just did there in that figure.

7 Ultimately they are reading out the battery
8 configured limitation. And if we look at the words they
9 chose again, and these are the words that Oura chose on May
10 24th when they filed the application, we have a battery
11 positioned within a cavity but there's another limitation.
12 The battery must also comprise a shape and size configured
13 to fit within that cavity. So it must be both positioned
14 and configured.

15 And Oura's evidence primarily relies on the
16 positioning of the battery. And we see that here.
17 Paragraph 156, talks about the positioning of the battery.

18 Paragraph 157, when they turn to the configuring,
19 they say it's a shape and size, curved -- curved is not a
20 shape and a size -- and it fits between the outer
21 circumferential surface and the inner circumferential
22 surface. That's not the cavity that Oura is alleging here.

23 The words are "it has to be a shape and size
24 configured within the battery." That's not what they are
25 pointing to. And why is that? It's right here, because

1 it's reversed. It's the other way around. The cavity
2 doesn't exist and the battery is configured to go in it.
3 The battery is positioned and the resin and the curing
4 actually creates the cavity. And we see that in the words
5 they have chose.

6 The battery is -- fully occupies the cavity
7 because once the potting material is cured and solidifies,
8 it forms a seal around the components. That is when the
9 cavity comes into existence in Oura's allegations, when the
10 material cures and solidifies.

11 This is a failure of proof. They have not
12 actually provided proof that the battery is configured.

13 Now, I want to look just quickly at the internal
14 housing component. And we have spoken about that.
15 Originally they pointed to the entirety of the resin as the
16 internal housing component. And we will see in a second,
17 they had a problem with that construction, so they have come
18 up with a new one in an attempt to redraw these figures.
19 They actually redraw an internal housing component comprised
20 of the crust, some undemarcated portion of the cured resin
21 that they now define as the crust.

22 Such a reinterpretation of this -- of these
23 actually flies in the face of the notice purpose of patents.
24 And it is not supported in any way by the patent. The word
25 "crust" never appears in the patents. And there is not a

1 single figure in the patent, among the almost 50 figures
2 that are in this patent, that slices and dices the
3 encapsulant in this manner.

4 Why did they have to redraw it like that? Well,
5 because when they originally defined the resin as the
6 entirety of the cure, when they defined the internal housing
7 component as the entirety of the cured resin, their words
8 were not met. And what words were not met here? This is
9 the printed circuit board provision limitation. And the
10 words they chose were that it must be disposed between the
11 internal housing component and the external housing
12 component.

13 And here we see a figure that actually came from
14 Oura's own expert. This is a cross-section of the
15 Ultrahuman product. And you can see here that there is --
16 the external housing component is kind of a brighter silver
17 looking metal piece. And then the PCB in the middle is that
18 copper-looking line with the components, the white pieces,
19 coming up and down off of it. That is the PCB with the
20 components.

21 You can see the remainder of it blocked is the
22 cured resin. And that PCB with components is floating
23 within the resin. It is inside the resin. And since it is
24 in the resin, it cannot be between the entirety of the cured
25 resin and the external housing component here or that metal

1 piece. And so they had to change their position on cured
2 resin and go to something that was less than the entirety of
3 it.

4 I also just want to highlight one other thing
5 that we're going to see on the internal housing component.
6 You're going to see Oura refer to this type of document on
7 the left, this blowout-type document. This is a social
8 media post. And it is a marketing document meant to try to
9 reflect the product. It is not actually a document showing
10 that actual components that are in our product.

11 And the evidence will show that there is nothing
12 that exists in our product as a component as that clear
13 internal last piece to the left. You could make a product
14 like that. You could mold encapped potting into a product
15 -- into a component like that and use it. But Ultrahuman
16 decided to follow a different design path. That is not what
17 we use.

18 What we use is actually reflected in the
19 materials to the right, which are actual scans and images of
20 our actual products. You see a CT scan then, a teardown,
21 and that same cross-section of it.

22 And so that teardown actually kind of exemplifies
23 it well. You will see the teardown there has the piece
24 where we have taken the outer shell off, we had to cut it
25 off, and what is left is the middle of the ring, which is an

1 integrated piece. You cannot separate the resin from the
2 components into anything over there. You would destroy the
3 resin, the encapsulant, and most likely destroy the
4 components in trying to get there.

5 Now I want to take just a return back to the
6 Motiv patent portfolio. This is a family tree that we have
7 created for the Motiv portfolio.

8 And you see the '178 patent all the way down in
9 the left-hand side there. There are a lot of patents in
10 this family and they all share the same or similar
11 disclosures and many of the same figures. And has been
12 mentioned, everyone agrees that not every figure in the '178
13 is covered by the claims here. It might be covered by other
14 patents across this family.

15 Also interesting, they have also begun to assert
16 and threaten others with other family members from this
17 patent. And in response, we have heard already that there
18 have been a number of IPRs and PGRs, post-grant challenges
19 that have been made by Samsung against a number of the
20 family members here.

21 Here is a list of them, about eight of these ten
22 actually are family members. There are a couple of here not
23 directed to the family members.

24 But then what we see here is some of the updates
25 as to what's already happened. And in response to those,

1 the Patent Office, this past week, actually instituted
2 post-grant proceedings against the two most important
3 patents in this family, the '178 patent itself and the
4 actual original patent that issued in this family, the '034.

5 And we also see here in the X's that Oura has
6 already self-invalidated four other patents within the --
7 within the top and the bottom, including the '179 patent,
8 which was previously asserted in this proceeding against the
9 exact same accused products and actually part of the
10 allegations of the infringement allegations with respect to
11 the '179 patent also dealt with an internal housing
12 component defining an interior wall, an exterior housing
13 component defining an exterior wall and a PCB disposed
14 between. Very similar to what we have just been discussing.

15 And what did Samsung rely on? Schroder and Niwa.
16 The same references that we are going to be dealing with
17 here when it comes to invalidity. The Schroder reference,
18 the Niwa reference, and Wissmar. You will hear from --
19 Mr. Alarcon will explain how the '178 patent is invalid in
20 light of these references and combinations.

21 Thank you very much, Your Honor.

22 JUDGE JOHNSON HINES: Thank you. Mr. Whitney?
23 Mr. Winston. I apologize.

24 MR. WINSTON: Good morning, Your Honor.

25 JUDGE JOHNSON HINES: Good morning.

1 MR. WINSTON: I would like to take a brief moment
2 to summarize the Staff's positions and highlight several of
3 the key issues that will be addressed during the course of
4 the investigation.

5 As we've just heard from the private parties,
6 this investigation is about Smart Ring wearable devices,
7 systems, and components. Oura's complaint asserted three
8 patents and a total of 31 claims, but only one patent and
9 five asserted claims remain. The patent that remains is
10 U.S. Patent Number 11,868,178, which I will refer to as the
11 '178 patent.

12 The '178 patent generally relates to wearable
13 computing devices such as smart rings which monitor a user's
14 activity and biosignals such as heart rate and body
15 temperature. In short, the Staff expects the evidence to
16 establish a violation of Section 337 with respect to the
17 '178 patent.

18 So that we can stay on the public record, I will
19 avoid delving into any confidential business information. I
20 will, however, address several key issues that are relevant
21 to the Commission's ultimate determination regarding
22 infringement, validity, and domestic industry. Let's begin
23 with infringement.

24 The evidence is expected to show that the accused
25 RingConn and Ultrahuman products infringe each of the five

1 remaining asserted claims, which are claims 1, 2, 12, 13,
2 and 14 of the '178 patent. Although Respondents contend
3 that the accused products fail to satisfy almost every
4 limitation of the asserted claims, the evidence is expected
5 to clearly show that the accused products each have the
6 claimed external housing component, internal housing
7 component, battery, printed circuit board, and sensors.

8 In the Staff's view, the real question is whether
9 the battery is positioned within a cavity that is formed
10 between the internal housing component and the external
11 housing component as the claim requires.

12 Clearly the battery is inside the housing
13 components, and, thus, necessarily within a cavity formed
14 therein, but the claim requires that that cavity be formed
15 between the internal housing component and the external
16 housing component and the products at issue, it is not
17 entirely clear whether the cavity is between the internal
18 housing component and the external housing component or the
19 cavity is formed entirely within the internal housing
20 component.

21 In the Staff's view, this question will turn on
22 expert testimony, and as discussed in the prehearing brief,
23 the Staff expects the evidence to show that this limitation
24 is met by the accused products.

25 Turning next to validity, the Staff does not

1 expect clear and convincing evidence of invalidity. As
2 explained in the prehearing briefs, the primary references
3 relied upon by Respondents fail to disclose or suggest each
4 limitation of the claimed invention, specifically the
5 primary references each fails to disclose at least
6 limitations 1[c] and 1[d], which recite a battery positioned
7 within a cavity formed between the internal and external
8 housing components and a printed circuit board disposed
9 between the internal and external housing components.

10 Respondents rely on various combinations of
11 references to provide what these primary references are
12 lacking, and while it is a close call, Respondents do not
13 persuasively explain in their brief why a person of ordinary
14 skill in the art would arrive at the claimed invention from
15 the various combinations of prior art. And instead of
16 viewing the references as a whole, Respondents appear to use
17 the '178 patent as a roadmap to assemble the various pieces
18 of prior art like a jigsaw puzzle to arrive at the claimed
19 invention.

20 This approach is suggestive of hindsight bias.
21 Accordingly, the Staff does not expect that Respondents will
22 meet their burden to show by clear and convincing evidence
23 that any an asserted claim is invalid.

24 Turning next to issue preclusion, Respondents
25 raise a defense based on issue preclusion. Oura filed

1 statutory disclaimers in certain patents related to the '178
2 patent to avoid institutions of inter partes and post grant
3 reviews before the Patent Trial and Appeal Board. Based on
4 these statutory disclaimers, Respondents contend that Oura
5 is precluded from really -- relitigating the validity of the
6 asserted claims of the '178 patent.

7 The Staff disagrees. The Commission has found
8 that the doctrine of issue preclusion applies if the, Number
9 1, the issue decided in the prior litigation is identical to
10 that before the tribunal. Number 2, the issue was actually
11 litigated in the prior proceeding. Number 3, the resolution
12 of the issue in the prior litigation was necessary to its
13 resulting judgment. And Number 4, the party against whom
14 estoppel is asserted had a full and fair opportunity to
15 litigate that position.

16 Here issue preclusion does not apply at least
17 because there has been no final judgment before the Patent
18 Trial and Appeal Board. Even if there had been a final
19 judgment, the issue would not be identical to that that is
20 before the Commission because, as the Commission has
21 previously found, a challenger's burden on validity before
22 the PTAB is lower than the Respondents' burden on validity
23 before the Commission. Accordingly Respondents cannot show
24 that issue preclusion applies.

25 Turning next to domestic industry, the Staff

1 expects Oura to satisfy the domestic industry requirement of
2 Section 337. For purposes of the technical prong of the
3 domestic industry requirement, Oura relies upon its Oura
4 Ring products. Oura's expert, Dr. Sarrafzadeh, is expected
5 to testify that each of the limitations of the asserted
6 claims are met by those products.

7 And with respect to the economic prong, Oura
8 relies upon its domestic investments in plant, equipment,
9 labor, and capital related to both technical support and
10 research and development activities in the United States for
11 its domestic industry products.

12 And as to the domestic industry products, Oura's
13 only products, all of the company's investments are made in
14 support of its DI products and all of its revenue are
15 related to those products.

16 In this regard, Oura maintains facilities and
17 employs staff in San Francisco and San Diego, California who
18 are engaged in research and development and technical
19 support activities in support of its domestic industry.
20 Oura's expected to show that its domestic industry
21 investments are both quantitatively and qualitatively
22 significant.

23 With respect to quantitative significance, they
24 base their -- Oura argues that its investments are
25 quantitatively significant based on various comparisons of

1 its domestic industry investments to its overall U.S. and
2 worldwide investments. And that its domestic industry
3 investments are qualitatively significant because the
4 majority of its sales are associated with U.S. consumers and
5 thus its R&D and technical support activities in the United
6 States are critical to its ability to meet the needs of its
7 U.S. market.

8 Accordingly, the evidence is expected to show
9 that Oura satisfies the domestic industry requirement of
10 Section 337.

11 Finally, turning to remedy, if a violation is
12 found, the Staff believes that the appropriate remedy will
13 be a limited exclusion order and cease and desist orders.
14 And with respect to bond, the Staff expects the evidence to
15 show that the accused products compete directly with the
16 Oura Ring and, thus, bond is necessary to protect Oura from
17 injury during the Presidential Review Period.

18 Oura's expert performs a price differential
19 analysis based on the average purchase price for an Oura
20 Ring and three years of Oura subscription fees. While the
21 Staff agrees with Oura that some period of subscription fees
22 are appropriate for a price differential analysis, it is not
23 clear from the evidence that it will support considering a
24 full three years of subscription fees in performing that
25 analysis.

1 having been first duly sworn/affirmed, was examined and
2 testified as follows:

3

4 THE WITNESS: Yes.

5 JUDGE JOHNSON HINES: Thank you very much.

6 Please be seated and welcome.

7 THE WITNESS: Thank you.

8

DIRECT EXAMINATION

9 BY MS. CARLAN:

10 Q. Could you please state your name.

11 A. It's Michael Anthony Ishobashi Chapp.

12 Q. And who is your employer?

13 A. It's Oura Ring, Inc.

14 Q. Do you have any relationship with Oura Health Oy?

15 A. I do, yes.

16 Q. And what is that relationship?

17 A. I am a representative of Oura Health Oy.

18 Q. How long have you been employed by Oura Ring?

19 A. It has been a little over five and a half years.

20 Q. And what's your current position?

21 A. I am the chief operating officer.

22 Q. And what are your responsibilities as COO?

23 A. So I'm responsible for our product delivery

24 organization, and that includes our product team, our

25 industrial design team, our science, hardware, software, and

1 then we also have what we call a business operations team,
2 which includes our member experience, and then IT
3 organization.

4 Q. And what other positions have you held at Oura,
5 if any?

6 A. I've also been the interim CEO.

7 Q. What are -- what were your responsibilities as
8 interim CEO?

9 A. So everything that I just mentioned, and I also
10 had our people team, our finance organization, marketing,
11 and B2B organization as well.

12 Q. And where is your office?

13 A. San Francisco, California.

14 Q. And can you tell me where the CEO, the chief
15 commercial officer, the chief legal officer, the chief
16 supply officer, and the chief marketing officer of Oura sit?

17 A. All within the United States.

18 Q. So prior to joining Oura, what were some of the
19 other jobs you held?

20 A. So I have held numerous roles, from engineering
21 in the technical side all the way through executive and
22 leadership roles, from large corporations all the way
23 through my own personal startups.

24 Q. And so then do you have engineering degrees?

25 A. I do, yes.

1 Q. And do you have other degrees besides engineering
2 degrees?

3 A. I do. I have an MBA as well.

4 Q. Okay. Thinking about your career, is there any
5 kind of mission that you personally have in your career?

6 A. Yeah. It's actually -- so I grew up in Michigan,
7 the auto -- the home of the auto industry. And when I was a
8 young kid, I saw the -- kind of the contraction of the
9 industry, the challenges that were being faced, and the
10 impact that that was having on our community. So it was
11 whether it was a growth year or kind of a contraction year,
12 we would see people in our community either gain or lose
13 their jobs. And it was similar to this time of the year
14 where if it was a bad year, if you were lucky enough to get
15 a gift, it would be like socks or T-shirts.

16 And I remember looking at my dad and just saying,
17 you know, one day I want to create jobs in the U.S. And I
18 hoped that I've kind of accomplished that either through the
19 engineering and the products that I've created in the world
20 or through, you know, starting my own companies or leading
21 companies.

22 Q. So what brought you to Oura?

23 A. So, similarly, I -- I was just -- at that point
24 in my life, I was -- I had a parallel path. I was running
25 two companies that I had started, and I had severe burnout.

1 And I had just also gotten married and my wife was like,
2 look, you need to take some time off for yourself and -- and
3 really recover.

4 And so I -- a friend had introduced,
5 reintroduced, me to Oura, which was their second-generation
6 ring, and I put it on and it was something magical. It was
7 the first time that I had ever worn a wearable that actually
8 gave me insights and that actually changed the behaviors of
9 myself. And I knew that there was something special there
10 that I needed to be a part of.

11 Q. So let's talk about Oura specifically.

12 There are two Oura entities; is that right?

13 A. That is correct, yeah.

14 Q. So I'm going to ask about some dates. And did
15 you create a timeline?

16 A. I did, yes.

17 Q. And this is CDX-2.2. Could you tell me when Oura
18 Health Oy was founded?

19 A. So Oura Health Oy was founded in 2013, but I
20 think it's important to note that it actually was founded --
21 the original founding name was JouZen, and that was in 2023.

22 Q. Okay. And we can take that down.

23 How was Oura Inc. related to Oura Health Oy?

24 A. Oura Ring Inc. is a subsidiary of Oura Health Oy.

25 Q. So we talked earlier about your mission, but

1 could you describe Oura's mission?

2 A. Yeah. So we exist to empower everyone to
3 practice health on a daily basis. What we're striving to do
4 is change the world from reactive care, meaning when people
5 get sick, to proactive care, to learning about themselves
6 and making daily habits, positive daily habits, with the
7 intent that you don't ever have to have that reactive care
8 one day. So that's what we're about.

9 Q. And what is Oura's origin story? How -- and then
10 how did Oura land on a ring?

11 A. So Oura actually was born out of a small town in
12 Finland called Oulu. And it's a quite remarkable experience
13 if you get there because there's only 1900 hours a year of
14 daylight. So the majority of the time is spent in darkness.
15 And health there, because of that, has become so important
16 and ingrained into their culture. So if you can imagine
17 mental health and physical health become really important
18 for them.

19 And our founders were looking at seeing the
20 trends of chronic diseases increasing, whether it's
21 diabetes, heart disease, dementia, Alzheimer's, like all of
22 that is increasing in the world, and they were really
23 looking at, well, again going back to our mission, how do we
24 start to prevent this. And there was correlations during
25 the time period around rooted in sleep, so sleep

1 deprivation.

2 And so the founders really were like: How do we
3 get the best type of signals off of -- physiological signals
4 to really help people learn about the importance of sleep?
5 And through all of their research, all of the trials and
6 tribulations of coming up with this product, they found that
7 the ring form factor was the best place for them to be able
8 to do that.

9 Q. And what product does Oura sell right now in
10 order to achieve its mission?

11 A. So we sell what I'd say is a complete solution.
12 So I mentioned it starts off with the ring. And that's
13 where we -- I almost look at it as magic. There's this
14 beautiful ability for us to be able to pull signals and
15 extract these physiological signals through the ring.

16 And then we take that data and we process it
17 through our algorithms. And then all of that information,
18 the insights and any guidance that we provide, is all
19 displayed through our app to our members.

20 Q. Okay. I've placed two rings on the document
21 projector here. And if you could take a look at those.
22 They are CPX-7 and CPX-12.

23 And can you tell me if these are Oura rings?

24 A. Yes, they are.

25 Q. Okay. Thank you.

1 Do Oura's Finnish roots that you were describing
2 have any influence today on the Oura ring?

3 A. Absolutely. I mean, going back to what I had
4 mentioned, there's this eloquence of what they've been able
5 to do in two -- be able -- in two ways. One is, I think,
6 Finnish design itself is how do you take something that
7 looks really complex and make it look really simple, which
8 is an amazing feat in itself and I think most people would
9 compare it to Scandinavian design, if you will.

10 And then there's this element of being able to
11 create balance in your life. And what we kind of capture in
12 that is the essence of how we communicate with our members
13 through the app. It's all -- to me, it's pretty magical and
14 it's special about how the culture is actually brought
15 through into our product.

16 Q. So how does Oura market any of these Finnish
17 roots?

18 A. So just recently we started doing a -- really a
19 campaign that is a nod to, an homage to our heritage.
20 Everything I just mentioned, it's a pretty special thing to,
21 if you go to Finland, there is these amazing cultural
22 elements, like you take your shoes off when you walk in the
23 door at the office and, you know, we -- people wear their
24 rings in saunas, for example. We -- we do tests around
25 these things, right?

1 And so what we wanted to do was bring to the
2 world and pay homage to our heritage and share that with the
3 world. So we have marketed it, but there's another element
4 to it, which is we also share that internally. We have
5 scaled and we have grown quite rapidly in the United States.

6 And, in fact, like, we want people to understand
7 what it's like, what that culture is, and to experience it
8 and make sure that they encapsulate that and like, go, with
9 building that into our products in the future. And so we
10 actually send our team members over to Finland to experience
11 it, to work there, to learn, to see the origin of it.

12 So it's really about how do we celebrate that
13 history and make sure that, as we scale and grow, we're
14 really carrying that on through all of Oura.

15 Q. But was the current version of the Oura Ring
16 developed only in Finland?

17 A. No.

18 Q. How many generations of the Oura Ring has the
19 company offered?

20 A. We've offered four.

21 Q. Okay. And we'll take a look at your timeline to
22 remind of dates, but could you tell us when the
23 first-generation Oura Ring was sold?

24 A. The first one was sold in 2015.

25 Q. And did that first Oura Ring have an app?

1 A. It did, yes.

2 Q. Okay. And you can turn in your binder or we
3 could pull up CX-0834 at page 2. And could you tell us what
4 this picture is?

5 A. That is our Gen. 1 ring.

6 Q. Okay. How were the sales of Gen. 1?

7 A. At the time, I think we -- I think they were
8 pretty good. It was roughly between 10- to 13,000.

9 Q. And 10- to 13,000 units or --

10 A. 10- to 13,000 rings, yes.

11 Q. Okay. Okay. Now, looking back at your timeline,
12 when was Gen. 2 first sold?

13 A. So that one we launched in 2018.

14 Q. All right. Let's pull up CX-1007, and this photo
15 there depicts two rings. Could you identify both of these?

16 A. So the black one that you see there, which we
17 kind of highlight as our class ring or the Superbowl ring,
18 if you will, that one is our Gen. 1. And then the more
19 refined ring that you see there in silver is our Gen. 2.

20 Q. And how would you just briefly describe the main
21 difference between the two?

22 A. I mean, looking at them, drastically different.
23 I think our engineering team did an amazing job being able
24 to miniaturize everything that you see in the Gen. 1 and put
25 it in an elegant, you know, ring for Gen. 2, making it look

1 more like an everyday ring, if you will.

2 Q. And then if we look at your timeline, there was a
3 Gen. 3?

4 A. Yes, there was.

5 Q. And when was that first sold?

6 A. That one was sold in October of 2021.

7 Q. Let's take a look at CX-091. Can you tell us
8 what that depicts?

9 A. That is the Gen. 3 ring.

10 Q. And just at a very high level, was there any
11 change from Gen. 2 to Gen. 3?

12 A. There was. We added additional sensing
13 capabilities.

14 Q. And was there a Gen. 4, finally?

15 A. Yes, there was.

16 Q. Let's look at the timeline to just get that date,
17 although you probably know this off the top of your head.
18 When did Gen. 4 release?

19 A. We just recently launched that in October of
20 2024.

21 Q. All right. And let's pull up CX-1146. And could
22 you identify this, please.

23 A. That is the beautiful Gen. 4 ring.

24 Q. Okay. And I'd like to have them all stacked
25 together on the screen, if possible, all these generations.

1 Thank you.

2 And just looking at this, how would you describe
3 the Gen. 4?

4 A. So we -- it's an evolution from one generation to
5 the next. And we look at, like, the additions that we're
6 adding, so how do we increase the capability as time goes
7 on.

8 And with Gen. 4, you'll see an innovation there
9 and our evolution of us getting to a ring which really looks
10 like an everyday ring, all titanium.

11 Q. So is Oura still selling any Gen. 2 rings?

12 A. No, we are not.

13 Q. Is Oura still selling Gen. 3 rings?

14 A. We are. So we'll sell through all of the
15 inventory that we have currently, and then as soon as we
16 sell through all of that inventory, then we'll stop selling
17 Gen. 3.

18 Q. Okay. So you still have a little bit of that in
19 inventory right now?

20 A. Yes.

21 Q. Okay. We can take that down.

22 Tell me, why does the Oura Ring product also have
23 an app associated with it?

24 A. Well, if you just saw, none of the rings actually
25 have a display on them. And so in order for us to

1 communicate and share the insights and all of the maybe
2 recommendations, we do that all through the app. And so
3 it's really needed in order to be able to share back
4 everything with our members.

5 Q. So is the -- so is the app essential or necessary
6 as part of the ring offerings?

7 A. It absolutely is, yes.

8 Q. What kinds of things do you see through the app?

9 A. So we will share things like the -- you'll have
10 the activity score. You'll have the sleep score, readiness
11 score. We also have additional insights for women's health,
12 and then we have additional elements like sleep -- sorry,
13 stress and resilience, and then we also have heart health as
14 part of our offering.

15 And so all of that, including some breathing
16 exercises and meditations, is part of the app. That's all a
17 part of it.

18 Q. So at a very high level, can you explain how the
19 product gathers data from the person who's wearing the ring?

20 A. Yeah. So at the highest level, all of the LEDs
21 that we've talked through, the green, the red, the IR, it
22 shines light into the finger, and then we have photo
23 detectors that will receive the signal back. And then from
24 there we will take those physiological signals, we'll use
25 our algorithms, and then from there we'll develop a feature

1 around it from those physiological signals that come off of
2 it.

3 Q. Does Oura charge a subscription?

4 A. It does, yes.

5 Q. And how much does that subscription or membership
6 cost?

7 A. It's \$5.99 per month.

8 Q. When did Oura begin offering a membership with
9 subscription?

10 A. That started with the launch of Gen. 3.

11 Q. Now, if a customer decides they don't want to pay
12 for a membership, can he or she still use the Oura Ring?

13 A. Yes, they can.

14 Q. And what features are available through the app
15 if you're not paying for the subscription?

16 A. So you'll have access to the three scores, so
17 activity, sleep, readiness. You'll also have access to some
18 of the content that I mentioned, like meditation and
19 breathing exercises. And then we also offer online the
20 ability for our members -- or members to be able to download
21 that data directly.

22 Q. Okay.

23 MS. CARLAN: And, Your Honor, I have some
24 questions now that need to go on the confidential record,
25 please.

1 JUDGE JOHNSON HINES: All right. We'll go on the
2 Oura confidential record.

3 (Whereupon, the hearing proceeded in confidential
4 session.)

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1 O P E N S E S S I O N

2 BY MS. CARLAN:

3 Q. So back on the public record.

4 Tell us what is Oura's view of competition in the
5 marketplace?

6 A. We see it as healthy. We see it as good. Kind
7 of look at it as like during the Olympics, right, you have
8 all the racers out there and each one is pushing each other
9 to be better. And, you know, I think it's healthy.

10 Q. Does Oura track any categories of competitors?

11 A. We do, yes.

12 Q. So what are some of the categories of competitors
13 that Oura tracks?

14 A. So we'll track activity trackers, we'll track
15 wrist wearables and then the obvious rings.

16 Q. Okay. And could you name some of the competitors
17 in the ring form factor?

18 A. So there is the EV ring. There will be a
19 RingConn and Ultrahuman.

20 Q. And there are others?

21 A. Other rings or --

22 Q. Yes.

23 A. There's a lot of rings out there now, yeah.

24 Q. Could you name some -- just a few of the
25 non-Smart Ring wearables that you track as competitors?

1 A. For wrist wearables, we'll track the Apple Watch.
2 We'll track Whoop, Garmin, Polar.

3 Q. And thinking about all these competitive
4 products, do they have anything in common?

5 A. All of them do wellness sensing.

6 Q. So does Oura consider Ultrahuman and RingConn to
7 be direct competitors?

8 A. Yes.

9 Q. And are RingConn and Ultrahuman sold in any of
10 the same channels as Oura?

11 A. Yes, they are.

12 Q. Which -- which channels, or could you name some
13 of them?

14 A. The most obvious, I think, is probably the direct
15 to consumer, so from website, and then Amazon.com would be
16 another.

17 Q. And what is the current sales price of the new
18 RingConn ring, Gen. 2?

19 A. Last time I checked, it was 299, \$299.

20 Q. Understood. All right. Let's talk about
21 importation. In preparation for this investigation, did
22 Oura buy some Ultrahuman and RingConn rings?

23 A. Yes, it did.

24 Q. Okay. I'd like to show CX-1013. And if you
25 could identify this document, please.

1 A. That is the invoice for the RingConn ring.

2 Q. And if we show CX-0694, and this is page 9, could
3 you tell me what this is?

4 A. That is on the box of the RingConn ring.

5 Q. And where does it say that the RingConn product
6 is made?

7 A. In the bottom left, it shows it's made in China.

8 Q. All right. And now I'd like to show CX-1008.
9 Can you tell me what this document is?

10 A. This is the Ultrahuman invoice.

11 Q. And if you look at CX-1009, can you tell me what
12 this document is?

13 A. That is the DHL shipping registry for the
14 Ultrahuman ring.

15 Q. And where did Ultrahuman ship the ring from?

16 A. Bangalore, India.

17 Q. Okay.

18 MS. CARLAN: And now I'd like to go back to the
19 confidential record, please.

20 JUDGE JOHNSON HINES: All right.

21 (Whereupon, the hearing proceeded in confidential
22 session.)

23

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1 O P E N S E S S I O N

2 BY MS. CARLAN:

3 Q. Does Oura have a medical advisory board in the
4 United States?

5 A. We do, yes.

6 Q. What does the medical advisory board do?

7 A. So the medical advisory board actually helps --
8 just as it's in the name, it advises us on a couple
9 different levels. And it -- they advise our executive team
10 in terms of how we're thinking about our forward-looking
11 strategy of the business.

12 But these are all experts in specific fields.
13 And so they also engage and work closely with our product
14 organization. And so some of the features that we do, we'll
15 be working with them.

16 Q. And does Oura consult with researchers to have
17 any clinical studies or other types of scientific studies?

18 A. Yes, we do. There's -- I would say there's --
19 it's two different ways. One is if we are working on
20 building out a product offering that requires science, we
21 will maybe reach out to a research institution that is a
22 specialist in that area and we'll do a research study there.

23 And on the reverse side, there's others who are
24 doing research in their own domain. And they may look to
25 Oura and reach out to us because they see that that's the

1 best device for them to do the research off of. And so
2 they'll contact us as well.

3 Q. Okay. And are there other partners or
4 collaborators that Oura works with?

5 A. There are, yes.

6 Q. And about how many partners does Oura have and in
7 what areas?

8 A. So we have a variety. A little while ago, we did
9 one with Gucci as an example. And that was a partnership
10 where we were bringing the health expertise of Oura to the
11 fashion industry and kind of merging the two as part of
12 that.

13 And then on other areas, as an example, we
14 partner with Natural Cycles to bring women's health to the
15 forefront there. And then we have over 600, you know,
16 partners, whether it's Strava. We work with a lot of
17 different, you know, groups to try to bring the best and the
18 most impact to our members.

19 Q. So, despite the R&D that you do and the
20 collaboration with others, has Oura also acquired companies
21 to obtain further capabilities?

22 A. Yes, we have.

23 Q. And is Proxy one of those?

24 A. It is, yes.

25 Q. How much did Oura pay to acquire Proxy?

1 A. 165 million.

2 Q. And what was included in that purchase of Proxy?

3 A. As part of that acquisition, we acquired the
4 whole business of Proxy, so that included -- we had a team
5 that joined Oura, we had all of its assets, also all of its
6 debts. We also have all of the intellectual property they
7 created under Proxy. But prior to that, Proxy had also
8 acquired a company called Motiv, and that included all of
9 the assets of Motiv, which included all of its intellectual
10 property and I believe all of its debt as well and all the
11 assets, essentially.

12 Q. Okay. Thank you, Mr. Chapp.

13 MS. CARLAN: I have nothing further on direct.
14 I'll pass the witness.

15 JUDGE JOHNSON HINES: All right. Thank you.

16 MR. HERTKO: Good morning, Your Honor.

17 JUDGE JOHNSON HINES: Good morning.

18 CROSS-EXAMINATION

19 BY MR. HERTKO:

20 Q. Good morning, Mr. Chapp.

21 A. Good morning.

22 Q. We met a few months in San Francisco. My name is
23 Matt Hertko from Jones Day representing RingConn.

24 Mr. Chapp, you're day-to-day functions include
25 managing Oura's product delivery organization, right?

1 A. That is correct.

2 Q. That includes managing Oura's research and
3 development?

4 A. That is correct.

5 Q. And that organization has responsibility for the
6 hardware in Oura's products, correct?

7 A. Hardware is a part of that, correct.

8 Q. Okay. And responsibility for the design of
9 Oura's products?

10 A. That's correct.

11 Q. And now, you talked about the Gen. 3 and the Gen.
12 4 products, so you know what I'm referring to with Gen. 3
13 and Gen. 4?

14 A. Correct.

15 Q. Now, it's your view, Mr. Chapp, that the
16 structure is the same for the Gen. 3 and the Gen. 4
17 products, right?

18 A. The structure has an inner, a flex, and an outer,
19 correct.

20 Q. Right. So it's your position that the structure
21 in the Gen. 3 and the Gen. 4 products is the same, correct?

22 A. They have the same structure, the inner, flex,
23 and an outer, correct.

24 Q. So, again, they're both the same? The structure
25 is the same in the Gen. 3 and the Gen. 4 structure?

1 A. Correct.

2 Q. You would agree? Okay. And so, I think you just
3 said this, so it's your position that the same three
4 structural elements as you've referred to them are in the
5 Gen. 3 and the Gen. 4?

6 A. Correct. As I'll say it --

7 Q. Yeah.

8 A. -- the inner, the flex, and then they have
9 electronics and then the outer, correct.

10 Q. Right. And so it's your view that those are the
11 three structural elements in the Gen. 3 and the Gen. 4
12 product, right?

13 A. All three of them share that structure, correct.
14 Sorry, the two, the two of those --

15 Q. Yeah.

16 A. -- share that same structure.

17 Q. That's the inner, the flex, and the outer?

18 A. Correct.

19 Q. You referred to those repeatedly at your
20 deposition, right?

21 A. Correct.

22 Q. Let's look at the Gen. 4 first.

23 Mr. Merisier, could you please pull up CX-76.

24 Thank you.

25 Now, this is a CT scan of the Oura Gen. 4

1 product, correct?

2 A. That looks to be correct.

3 Q. Okay. And, again, it's your position that the
4 structure here in the Gen. 4 is an inner, a flex, and an
5 outer, correct?

6 A. That is correct.

7 Q. Now, in the Gen. 4, what you referred to as the
8 inner is titanium, correct?

9 A. Correct.

10 Q. And what you refer to as the outer in the Gen. 4
11 is also titanium; is that right?

12 A. That is correct.

13 Q. Okay. Now, let's take a look at the Gen. 3.
14 Mr. Merisier, could you pull up CX-48. Thank
15 you.

16 Now, this is a CT scan of the Oura Gen. 3
17 product, right, Mr. Chapp?

18 A. It's -- it's really hard for me to tell with this
19 graphic.

20 Q. You're not familiar with the Gen. 3 product and
21 the structure of the Gen. 3 product?

22 A. I am, but this is a really tough schematic.
23 There's a lot of, like, haziness, so I --

24 Q. Can we actually look -- Mr. Merisier, could you
25 back out a little bit to show the Bates numbers there?

1 Yeah.

2 Do you recall I showed you a number of CT scans
3 at your deposition, Mr. Chapp?

4 A. I do remember that, yes.

5 Q. And I'll represent to you this was one of the --
6 one of the images I showed to you.

7 And so we can pull up your deposition transcript,
8 if you could, please, Mr. Merisier, 196:9 to 18.

9 So referring to an Exhibit 11, "Question: Okay.
10 So keep that. I'm going to mark -- I'm going to hand you
11 what I have marked as Chapp Exhibit 11. And this is a
12 document bearing Bates Numbers OURA-ITC-CTSCAN-001.0001
13 through 0010. Do you recognize this, Mr. Chapp?"

14 A. This I do, yes.

15 Q. Okay. Well, I'm just reading this. So what I'm
16 trying -- I'm trying to just reorient you. If we can pull
17 that image back up, I'm just showing you that this is the
18 image that you looked at, at your deposition.

19 A. Yeah. So just reading the scan, it's between 01
20 and 10, so I will -- I'll accept that, yes.

21 Q. And you agreed at your deposition that this was a
22 scan of the Gen. 3 product?

23 A. Yeah, I think it was presented in a different way
24 as part of -- I don't have all the information here, so --

25 Q. Okay. If you could pull up that deposition

1 excerpt back up, please, Mr. Merisier.

2 I said --

3 A. No, no. Based on this, so the 001 through 0010,
4 I would agree that, based on that, you coordinating that, I
5 would agree that that is correct.

6 Q. Okay.

7 A. Yeah.

8 Q. You would agree that -- if we could go back to
9 CX-48, you would agree that .0004 is between 1 and --

10 A. Yes. Yes. Yeah, what I'm saying is I would
11 agree with you that, based on what you just shared with me,
12 that I would agree that this is a Gen. 3.

13 Q. Okay. That's what I'm trying to --

14 A. Yeah, yeah, yeah.

15 Q. So you'd agree that this --

16 A. Yes. Yeah, after you shared that with me -- no
17 problem.

18 Q. I'm trying to --

19 A. Yeah. No problem.

20 Q. Okay.

21 JUDGE JOHNSON HINES: All right. Can you not
22 speak over each other?

23 MR. HERTKO: Sorry, Your Honor.

24 JUDGE JOHNSON HINES: It is impossible to get a
25 record.

1 MR. HERTKO: Okay.

2 JUDGE JOHNSON HINES: Thank you.

3 BY MR. HERTKO:

4 Q. So looking at CX-48, the cross-sectional view of
5 the Gen. 3 ring, again it's your position that there's three
6 structural components in this Gen. 3 ring, right?

7 A. That is correct.

8 Q. And, again, you refer to those as an inner, the
9 flex, and the outer, right?

10 A. That is correct.

11 Q. Now, in the Gen. 3, what you refer to as the
12 inner is polymer, right?

13 A. On the Gen. 3, I think what we had said is it's
14 the epoxy, is the inner, correct, on the Gen. 3.

15 Q. And epoxy is a type of polymer?

16 A. Correct, yeah.

17 Q. So in the Gen. 3, what you refer to as the inner
18 is epoxy?

19 A. On the Gen. 3, correct.

20 Q. And in the Gen. 3, what you refer to as the outer
21 is titanium?

22 A. That is correct.

23 Q. Okay. And the manufacturing process, you would
24 agree, is different for the Gen. 3 and the Gen. 4, right?

25 A. The manufacturing process from between Gen. 3 and

1 Gen. 4 is different. That is correct.

2 Q. And specifically as it relates to the structure,
3 the manufacturing process of the structure of these three
4 components, right?

5 A. I don't agree that the structure is different.
6 The order in which we assemble is different.

7 Q. Yeah. Let me ask it -- that is what I was going
8 to ask. The order in which these three components are
9 assembled varies from the Gen. 3 to the Gen. 4?

10 MS. CARLAN: And, Your Honor, it sounds like
11 we're getting into the confidential information. So if
12 counsel would be careful or put it on the confidential
13 record.

14 MR. HERTKO: Okay. Maybe we can go on the
15 confidential record because I'm going to go through a couple
16 documents as well, so --

17 JUDGE JOHNSON HINES: All right. So we'll go on
18 the Oura confidential record.

19 (Whereupon, the hearing proceeded in confidential
20 session.)

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1 O P E N S E S S I O N

2 BY MR. HERTKO:

3 Q. Mr. Chapp, I believe you testified to this
4 earlier, Oura previously sold a product called the Gen. 2
5 Smart Ring, right?

6 A. Yes, we sold Gen. 2.

7 Q. And the Gen. 2 was released in 2018?

8 A. I believe that was the right year, yes.

9 Q. Yeah, I believe you had a demonstrative --

10 A. Yeah. Yeah.

11 Q. -- that showed --

12 A. Correct.

13 Q. And Oura -- you may have testified to this. Oura
14 no longer sells the Oura Gen. 2 Smart Ring, right?

15 A. Correct. We no longer sell Gen. 2.

16 Q. But Oura still supports the Gen. 2 Smart Ring?

17 A. The Gen. 2 Smart Ring is out of warranty. So I
18 -- we don't support the ring itself anymore, if it's out of
19 warranty.

20 Q. But Oura provides software updates for the Gen. 2
21 ring, right?

22 A. If it's backward compatible. So what we do is we
23 focus on the most recent generation of ring, so in this
24 case, we would be building all of our features towards the
25 Oura Ring 4, and anything that is capable of being

1 backward-compatible would be available, but we don't design
2 features or any type of product offering for Gen. 2
3 specifically. So there's different sensing capabilities,
4 there's different -- as I kind of mentioned before, there's
5 green LEDs, there's red LEDs, and there's additional
6 temperature. So if it's not part of that -- now we have
7 smart sensing, so if the capability is not there in the Gen.
8 2, it would not be available on the Gen. 2 ring.

9 Q. But if the capability is there, then you would --
10 the software update would apply to the Gen. 2 ring, right?

11 A. Correct.

12 Q. Okay. And the same for firmware?

13 A. It would, but it's -- yeah. There's -- again,
14 almost every feature we focus on is the forward-looking with
15 the new smart sensing and --

16 Q. And it's fair to say that Oura began development
17 of the Gen. 2 ring prior to 2018?

18 A. Before its launch, yes, we did do development on
19 it before that.

20 Q. Okay. And it's fair to say -- and so the Gen. 3
21 ring was released in 2021, correct?

22 A. That is correct.

23 Q. And so fair to say that Oura began development of
24 the Gen. 3 prior to 2021?

25 A. Yes. We developed prior to 2021, correct.

1 Q. And the Oura Gen. 3 rings are manufactured and
2 fully assembled outside of the U.S., right?

3 A. Sorry, could you repeat that?

4 Q. Sure. The Oura Gen. 3 rings are manufactured and
5 fully assembled outside of the U.S.?

6 A. That is correct.

7 Q. And the Oura Gen. 4 rings are likewise
8 manufactured and fully assembled outside of the U.S.?

9 A. That is correct.

10 MR. HERTKO: No further questions, Your Honor.

11 JUDGE JOHNSON HINES: Thank you.

12 MS. TULLY: Thank you, Your Honor.

13 CROSS-EXAMINATION

14 BY MS. TULLY:

15 Q. Mr. Chapp, my name is Danielle Tully. We haven't
16 met yet. I am appearing on behalf of Ultrahuman today.

17 A. I'm sorry, I can barely hear you.

18 Q. Oh, I'm sorry. I can stand closer to the
19 microphone.

20 A. Thank you.

21 Q. Mr. Merisier, can we please bring back up
22 CDX-0002.2.

23 Mr. Chapp, I believe you testified that Motiv
24 launched in 2017, correct?

25 A. Yes. Motiv did launch in 2017.

1 Q. Okay. And so Oura's Gen. 1 would have been on
2 the market two years before the Motiv ring launched,
3 correct?

4 A. Based on the timeline, correct.

5 Q. Okay. And Gen. 1 launched approximately eight
6 years before Oura prior to any patent asserted here today,
7 correct?

8 A. Sorry, could you --

9 Q. Oura Gen. 1 launched approximately eight years
10 before any patent was acquired that's asserted here today,
11 correct? Before Oura acquired any patent that's asserted
12 here today?

13 A. Yeah, if we purchased in '23, and '2015 is when
14 we launched, correct.

15 Q. And Oura Gen. 2 likewise launched approximately
16 five years before Oura acquired the '178 patent, correct?

17 A. That is correct.

18 Q. And Oura Gen. 3 shipped -- started shipping about
19 one and a half years before Oura acquired the '178 patent,
20 correct?

21 A. That is correct.

22 Q. And you understand that Complainants' position is
23 that Gen. 3 is covered by the '178 patent, correct?

24 A. Gen. 3, correct.

25 MS. TULLY: Your Honor, we can go on the

1 confidential record?

2 JUDGE JOHNSON HINES: Yes.

3 (Whereupon, the hearing proceeded in confidential
4 session.)

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1 O P E N S E S S I O N
2 EXAMINATION BY COUNSEL FOR ITC

3 BY MR. WINSTON:

4 Q. Hi, Mr. Chapp. I'm Whitney Winston. I'm with
5 the Office of Unfair Import Investigations. I just have a
6 few questions for you. I want to take a step back and talk
7 about the corporate structure of Oura.

8 A. I'm sorry. I can't really hear you as well.

9 Q. I'm sorry. I will try to speak louder. Please
10 let me know if you're not able to hear me.

11 I'd like to take a step back and ask you some
12 questions about the Oura corporate structure. I understand
13 -- I believe that you testified earlier that you're an
14 employee of Oura Ring, Inc.; is that correct?

15 A. That is correct, yes.

16 Q. Do you know where Oura Ring is incorporated?

17 A. I recall it being incorporated out of Delaware.

18 Q. And where is Oura Ring's principal place of
19 business?

20 A. So in the United States, it's in San Francisco,
21 California.

22 Q. You -- there has also been mention of Oura Health
23 Oy?

24 A. That is correct, yes.

25 Q. And what is that entity?

1 A. That is the parent company of Oura Ring, Inc.

2 Q. And where is Oura Health Oy incorporated? Do you
3 know?

4 A. Out of Finland.

5 Q. Finland. So when I say Oura, I'm referring to
6 both Oura Ring, as well as Oura Health Oy together.

7 A. Okay.

8 Q. Is that all right?

9 A. That's okay. Thank you.

10 Q. Can you tell me at a high level what the various
11 business functions within Oura are that are conducted in the
12 United States?

13 A. So we have -- as all of the different businesses
14 or one specifically towards R&D?

15 Q. All of the different businesses.

16 A. Okay. So within the U.S., we have our C suite,
17 so the executives who lead the company, we also have our
18 legal team here, we have our people organization, we have
19 our finance organization, we have our member experience,
20 which also includes, as I mentioned earlier, the technical
21 support team. We also have our -- this gets into more of
22 the product, so we have the hardware engineering, software
23 engineering, we have our science organization product, and
24 then -- I'm sorry, there's like 12 to 13, so I'm just
25 remembering. And then our commercial B2B organization,

1 marketing -- I'm trying to think if there is -- I'm sorry,
2 there's -- I think that might cover the majority. I
3 apologize if I missed any, but that's -- those are all ones
4 that are here in the U.S.

5 Q. I'm not trying to test your memory.

6 A. Yeah. No, I can appreciate that. Thank you.

7 Q. So let's look at the Oura research and
8 development activities in the U.S. Can you just explain
9 those at a high level, please?

10 A. So on the -- I'll start with the hardware side.
11 So here we have our product organization for hardware that
12 helps define what a product might look like for hardware,
13 specifically for the ring. And they'll work with the
14 different teams, our science organization, they'll work with
15 our software organization, to really help define what do we
16 need to build in terms of a ring in the future.

17 And then we have the engineering team who
18 actually goes and designs and engineers the product itself,
19 so that's one team. They work closely, as I mentioned, with
20 our science organization. Our science organization will
21 look at the signals that come off of the ring and any type
22 of sensing, whether it's temperature or, as I mentioned, the
23 IR, green, red lights. They'll pull those signals in.
24 They'll develop the algorithms in which we then use to
25 translate that data into insights.

1 And that might -- an example might be on your
2 sleep staging, how much of it's REM, how much of it's deep
3 sleep. So that is really the data coming off the ring,
4 build the algorithm, and then the science -- so the science
5 team will then work with our firmware team, our software
6 organization, and our software design team to then build all
7 the graphics, build everything on the engineering side, on
8 the software side to build that into our app.

9 So if you were to open our app today, let's go
10 back to sleep again, you would see a wonderful graphic
11 showing all of that data, and it would be depicted to you,
12 and then it would come with insights off of that that they
13 might share.

14 So from the R&D perspective, it goes from, you
15 know, signals of the ring to how do we take that, build the
16 algorithms. We'll also do research, if it requires it.
17 We'll do some studies, clinical trials with outside
18 researchers to validate that. For us credibility and
19 validation is really important. And then we'll build that,
20 and that will go with the software organization and be built
21 into the software, the app, if you will.

22 Q. Okay. Thank you.

23 So Oura conducts research activities -- research
24 and development activities in the United States, as well as
25 outside of the United States, correct?

1 A. That is correct.

2 Q. How do the employees and the staff involved in
3 research and development in the United States work with
4 those employees who are working in research and development
5 outside of the United States?

6 A. So, actually, can I -- can you clarify the
7 question a little bit more? Because maybe a little bit of
8 an explanation. So we have our science team here. We also
9 have a science team in Finland, and then we work with
10 outside research organizations.

11 So I don't know if that helps. I'm trying to
12 just make sure I'm answering your question that you're
13 asking.

14 Q. I'd like to understand how the research and
15 development activities in the United States -- how those
16 individuals involved in those activities work with others
17 outside of the United States?

18 A. Including our internal team?

19 Q. Including your internal team.

20 A. Okay. Sorry. Thank you for the clarification.

21 So there's a couple of different ways that we
22 work. So there is -- our science team here will work with,
23 potentially, our research institution that's outside of the
24 U.S. And in that case, what we would do is we would provide
25 the rings and understand what type of data they may need to

1 create the pipeline.

2 And then they would perform the research outside,
3 but our team would be working directly with them if it's
4 developing an algorithm off of that data, for example.

5 (Whereupon, the hearing proceeded in confidential
6 session.)

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1 O P E N S E S S I O N

2 BY MS. CARLAN:

3 Q. And I just want to clear up one thing.

4 When Oura acquired Proxy, you testified that Oura
5 acquired the IP at that time that Proxy had. And among
6 other things that Oura acquired.

7 And just thinking about the timeline, at that
8 point in time, did the '178 patent exist as part of that
9 acquisition?

10 A. It did.

11 Q. Okay. Was it -- do you recall whether that was
12 already an issued patent or was it an application or was it
13 even applied for? Do you know that, that answer?

14 A. I believe the '178 was already issued at that
15 point.

16 Q. Okay. All right. Well, let's look at -- let me
17 see if I can pull up your demonstrative that you made with
18 2.2. Right. So in May of 2023, Oura acquired Proxy, right?

19 A. That is correct, yes.

20 Q. Okay. And have you seen the '178 patent issue
21 date that's in January of 2024?

22 A. Sorry, could you repeat that?

23 Q. Have you seen the issue date listed on the '178
24 is in 2024?

25 A. I have not, no.

1 Q. Okay. So orienting you on the timeline, the '178
2 patent would not have existed, then, as of May of 2023,
3 correct?

4 A. Correct.

5 Q. Okay. That's all. I wanted to clean up. Thank
6 you.

7 JUDGE JOHNSON HINES: All right. Thank you very
8 much.

9 Thank you, Mr. Chapp.

10 THE WITNESS: Thank you, Your Honor.

11 JUDGE JOHNSON HINES: You're excused.

12 (The witness stood down.)

13 JUDGE JOHNSON HINES: We'll break for lunch now.

14 And we'll convene in an hour at 1:45. Thank you.

15 (Whereupon, at 12:42 p.m., a lunch recess was
16 taken.)

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

2 (1:45 p.m.)

3 MS. CARLAN: Good afternoon, Your Honor. We'll
4 be calling our next witness, Curt von Badinski. I do
5 believe there might be a little bit of discussion about some
6 exhibits first, though.

7 JUDGE JOHNSON HINES: All right. Is there a
8 discussion about exhibits first?

9 MR. AUGELLI: Good afternoon, Your Honor. I'm
10 John Augelli from Cadwalder on behalf of Ultrahuman. I'm
11 Cadwalder's NEXT advocate.

12 JUDGE JOHNSON HINES: All right. If you're
13 talking about exhibits --

14 MR. AUGELLI: Yes.

15 JUDGE JOHNSON HINES: -- demonstratives?

16 MR. AUGELLI: Just an exhibit.

17 JUDGE JOHNSON HINES: Just an exhibit. Can I see
18 the exhibit?

19 MR. AUGELLI: Yes.

20 JUDGE JOHNSON HINES: Or can I get a copy of it?

21 MR. AUGELLI: If -- Rich, if you could bring it
22 up on the screen. If somebody has a copy of it.

23 JUDGE JOHNSON HINES: Yes. Thank you.

24 MR. AUGELLI: And, yeah, Your Honor --

25 MR. BREETZ: This is a confidential exhibit,

1 so --

2 JUDGE JOHNSON HINES: All right. Whose
3 confidential information do we have?

4 MR. VIDWAN: Your Honor --

5 JUDGE JOHNSON HINES: I assume it would be
6 Oura's.

7 MR. VIDWAN: Your Honor, it's third-party
8 inventors' CBI as well as Oura's, correct. Because acquired
9 it, it's -- there's inventor notes in there.

10 JUDGE JOHNSON HINES: All right.

11 MR. VIDWAN: So, therefore, the portions that
12 were acquired by Oura, that is Oura's CBI then. There might
13 be some notes in there of the inventor as well, so we want
14 to make sure that any of those notes are the inventor's CBI.

15 JUDGE JOHNSON HINES: Do Oura in-house people
16 need to leave?

17 MR. VIDWAN: No, they do not, Your Honor.

18 JUDGE JOHNSON HINES: All right. So we'll go on
19 the Oura confidential record. Thank you.

20 MR. VIDWAN: Thank you, Your Honor.

21 (Whereupon, the hearing proceeded in confidential
22 session.)

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1 O P E N S E S S I O N

2 JUDGE JOHNSON HINES: Do you have another copy?

3 It's fine. It's fine. We're good. No, no, it's fine.

4 We're good. We're fine.

5 Good afternoon. Could you raise your right hand,
6 please.

7 Whereupon--

8 CURTIS von BADINSKI,

9 having been first duly sworn/affirmed, was examined and
10 testified as follows:

11 THE WITNESS: I do.

12 JUDGE JOHNSON HINES: Thank you very much. Have
13 a seat. Welcome.

14 THE WITNESS: Thank you.

15 DIRECT EXAMINATION

16 BY MR. VIDWAN:

17 Q. Good afternoon, Mr. von Badinski. Can you please
18 state your name for the record, please?

19 A. Yeah. Curt von Badinski.

20 Q. And where do you currently work?

21 A. I'm currently self-employed. I have a
22 consultancy called Mechio.

23 Q. And what is your educational background?

24 A. I have a Bachelor of Science in mechanical
25 engineering, with a concentration in microtronics.

1 Q. And when did you receive that degree?

2 A. 2003.

3 Q. And can you tell us a little bit about your work
4 background?

5 A. Yeah. I have been practicing mechanical
6 engineering for a while. I worked at Cisco Systems as a
7 mechanical engineer. After Cisco, I worked at Lockheed
8 Martin, working on satellites and propulsion systems, things
9 of the sort.

10 After Lockheed, I went to a product design
11 company making consumer electronics devices. After Speck, I
12 started my own company called View Factor, where we made
13 camera accessories for the movie industry. That's like
14 metal plates that go on cameras and remote control systems.

15 After that -- or actually during that, I started
16 Mechio, not the same Mechio as now, old Mechio. That
17 eventually became Motiv. And that was a smart ring company.
18 And after Motiv was acquired, I was briefly consulting with
19 Proxy, who we sold the company to.

20 After that, I worked at Facebook Connectivity,
21 working on satellite communications systems and terrestrial
22 communications systems. My group was acquired. I went to
23 Amazon. I worked there on the same. And after Amazon, I
24 went back into consulting again, can't get enough
25 consulting, and then worked at a company called Anduril

1 doing defense contracting. And then more recently, I went
2 back into consulting again.

3 Q. And you mentioned Mechio that was acquired by
4 Motiv. How did Mechio Motiv come about to be?

5 A. So Mechio started as an idea around -- well,
6 technically, the first idea I had was making a little
7 modular development system for electronics kind of like
8 Arduinos. I'm not sure if anybody is familiar with that.

9 My friend and I started working on that for a
10 while, and we were going to release it to the public and
11 then we found it on Kickstarter, so we decided it probably
12 wasn't worth going after something someone else already did.

13 But the idea after that was the smart ring,
14 basically a keepsake where you flick the ring, and then as
15 the ring rotates around, it shows a little message on it
16 like I love you or your wedding date, things of that sort.

17 Q. And when did -- would it be okay if I refer to
18 Mechio and Motiv as together? I understand that Mechio's
19 name was changed to Motiv.

20 A. Yeah. That's fine.

21 Q. When was Motiv officially formed as a company?

22 A. End of December 2013.

23 Q. And how many founders were there of Motiv?

24 A. There were four of us. I started the company. I
25 brought Peter Twiss onboard and then followed up with Mike

1 and Eric Strasser.

2 Q. And you say you started the company. How did you
3 fund the company?

4 A. I self-funded it. I sold my truck, walked to
5 work for about six months, and then I cashed out my 401(k),
6 took out a loan. You know, things startup people do.

7 Q. And to your knowledge, did any of the other
8 founders invest any of their own money?

9 A. Not -- not at that point. I think there were
10 ancillary things here or there that they would spend, you
11 know, like on flights or miscellaneous stuff, but I didn't
12 -- I don't recall any massive influx of capital from them.

13 Q. And you had mentioned that your original idea you
14 had was to kind of have a keepsake ring. What -- about what
15 time frame was that, that you came up with that idea?

16 A. It was about a year before I started talking to
17 Peter about it, so probably around 2012 or earlier.

18 Q. And when you mentioned Peter, are you referring
19 to Peter Twiss?

20 A. Yeah.

21 Q. How did you know Peter Twiss?

22 A. I had Peter as a contractor at View Factor
23 working on some projects that I had. Probably got a couple
24 projects with him, and then I enjoyed working with him, so
25 we started working on things on the side. So that was that

1 original dev system that I was telling you about, the
2 stackable electronic thing. And then when that hit a dead
3 end with the Kickstarter thing that I saw, I decided that
4 the next thing we should work on would be that ring, and
5 that's when I presented that to him.

6 Q. So you were working on something with Peter and
7 you saw it on Kickstarter so you changed direction. Is that
8 fair?

9 A. That's fair, yeah.

10 Q. Okay. So going back to Motiv, did you look, when
11 you started working on wearable rings, whether or not there
12 were any other smart rings out there in the market or what
13 kind of research did you do?

14 A. Yeah, I did. I think most of it was just looking
15 around Google trying to find anything that was
16 representative. I did some brief searches on Google Patents
17 looking for anything that was really obvious that read on
18 what we were doing.

19 Q. You mentioned patents. Why did you look at
20 patents?

21 A. Just making sure I wasn't infringing on anything.
22 You know, there's no point to working several years on
23 something and then just finding out that you're infringing
24 on something. So I knew enough about patents not to do
25 that.

1 Q. Let's take a look at your inventor notes.

2 MR. VIDWAN: But, Your Honor, for this portion, I
3 would like to go -- we would like to go on confidential
4 record.

5 JUDGE JOHNSON HINES: All right.

6 (Whereupon, the hearing proceeded in confidential
7 session.)

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1 O P E N S E S S I O N

2 BY MR. VIDWAN:

3 Q. Did you look at this cell when you visited or
4 talked to GMBPower?

5 A. I don't know if it's exactly this cell. We
6 visited a lot of different companies, but one thing I did
7 find in my research is that a lot of companies just take
8 screenshots of other companies. So this very well could be
9 GMB, but I couldn't really attest to that.

10 Q. Looking at the specifications on the middle of
11 this page, could those have worked for the ring that you
12 were designing?

13 A. The dimensions down at the bottom say
14 10-millimeter width, 2-millimeter thickness. So our battery
15 that we ended up using for our ring I believe was around 6
16 millimeters. So this is 4 millimeters wider, which would
17 mean our ring, instead of being 8 millimeters wide, would
18 have been 12 millimeters wide.

19 As you start getting down to the smaller ring
20 sizes, like the size 6s and 7s, that becomes really unwieldy
21 for people with really small hands. So this wouldn't have
22 been an option for us. We were pretty dedicated to making
23 the form factor that way we wanted to make it, which was
24 more like a wedding ring form factor, instead of like an
25 artsy kind of, you know, more fashion-forward ring.

1 The capacity on this seems a little bit high. I
2 don't recall any batteries in that kind of size that would
3 be even close to that number.

4 Q. If you can look at the second page of this
5 document, do you see where the smallest ring sizes -- I
6 mean, sorry, smallest curved cell?

7 A. Yes.

8 Q. Was -- sorry, go ahead.

9 A. So the milliamp hours is probably closer to
10 reality for that one, but, yeah.

11 Q. Would this have worked for the ring design that
12 you were making?

13 A. The dimensions, again, are too big for what was
14 -- they were too big for our application. I think,
15 secondly, the charge time is pretty big. We were trying to
16 go for under two-hour charge time. We had a lot of customer
17 feedback that they don't want to wait all day to charge the
18 ring.

19 I think, secondly, looking at this one, the
20 discharge current is pretty small. If you take .2 times 25,
21 that gives you maybe 5 milliamps of discharge that you could
22 have. We had at times 120-milliamp spikes in our design for
23 being able to run like the PBG and the Bluetooth.

24 I think most of the time, the Bluetooth would run
25 about 12 to 15 milliamps if you're continuously

1 transmitting. And then the PPG sensor was probably on the
2 order of tens of milliamps. I don't remember the exact
3 number, but if your battery is only capable of discharging 5
4 milliamps, then usually the repercussions are that your
5 voltage rail drops and then it doesn't work, so you start
6 resetting things.

7 And then, secondly, a lot of times, the battery
8 vendors won't support any warranty-related issues. So if we
9 have thousands of rings that are failing because we're
10 drawing too much current from them, then the vendor would
11 just say, well, you're drawing more than we said you should
12 be drawing. So that would be a problem as well.

13 Q. We can take this down.

14 (Whereupon, the hearing proceeded in confidential
15 session.)

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1 O P E N S E S S I O N

2 MR. POWELL: The smart rings track steps so every
3 time they go out and back in, they're getting their steps
4 in.

5 THE WITNESS: If the algorithms are right.

6 MR. POWELL: And, Your Honor, we haven't met
7 before. My name is Mike Powell with the Cadwalder team.
8 It's a pleasure to be here.

9 JUDGE JOHNSON HINES: Thank you.

10 CROSS-EXAMINATION

11 BY MR. POWELL:

12 Q. And likewise, Mr. von Badinski, we haven't met
13 before. My name is Mike Powell.

14 A. Nice to meet you.

15 Q. It's nice to meet you.

16 A. Yeah. You did my name perfectly by the way.
17 Good job.

18 Q. You have one of the more interesting -- you have
19 a, you know, memorable last name, I will say.

20 A. It has been butchered many times at Starbucks.

21 Q. Mr. von Badinski, you have a binder in front of
22 you. I'd like you to turn to RX-0295C. Can you testify
23 about how you're getting paid?

24 MR. VIDWAN: Your Honor, this is a confidential
25 exhibit.

1 JUDGE JOHNSON HINES: All right. Do we need to
2 go --

3 MR. POWELL: Okay.

4 JUDGE JOHNSON HINES: We can go on the
5 confidential record.

6 MR. POWELL: If he's saying it's confidential,
7 then that's okay. We can go back on the confidential
8 record. I don't really see how it's confidential, but --

9 JUDGE JOHNSON HINES: Actually, I mean, I don't
10 either, but --

11 MR. VIDWAN: Your Honor --

12 JUDGE JOHNSON HINES: I know it's labeled that
13 way. It just doesn't --

14 MR. POWELL: It's just a contract that's signed,
15 so -- but it's not my call to make.

16 MR. VIDWAN: Your Honor, because the terms of the
17 agreement are in there, that's why we are saying that it's
18 confidential.

19 MR. POWELL: I don't think there's a
20 confidentiality provision but --

21 JUDGE JOHNSON HINES: We'll go on the
22 confidential record.

23 (Whereupon, the hearing proceeded in confidential
24 session.)

25

1 O P E N S E S S I O N

2 THE WITNESS: Yeah, the -- this was shown at my
3 deposition, and I believe it was one of the patents that we
4 acquired at Motiv.

5 BY MR. POWELL:

6 Q. And you're familiar with both Figures 13 and 15
7 of this patent?

8 A. Are those the ones shown in the view right there
9 or --

10 Q. We can -- I mean, you have a binder in front of
11 you --

12 A. Oh sorry.

13 Q. -- but it's up on the screen.

14 A. Which binder is it on? Sorry.

15 Q. It's on the screen right now.

16 A. Okay.

17 Q. If that is easier for you. I think it probably
18 is.

19 A. Yeah, I recognize this.

20 Q. And if you put 15B up there as well. Thank you,
21 Mr. Merisier. All right.

22 In the embodiment of Figure 15A and 15B, would
23 the circuit board and other components be within a space
24 defined between the inner and outer housing?

25 A. Yes.

1 Q. And could we put up Figure 13 back up on the
2 screen, please. Thank you.

3 How is the housing configuration different
4 between the embodiment of Figure 13 and the embodiment of
5 Figure 15?

6 A. Figure 15 has two solid -- in this particular
7 instance, I believe they were assumed to be metal. They
8 could possibly be plastic as well. Figure 13 was -- the
9 intent was to be a solid metal outer housing with an
10 overmolded inner housing.

11 JUDGE JOHNSON HINES: What does "overmolded"
12 mean?

13 THE WITNESS: Overmolding typically means having
14 -- you have a structure that's inside a cavity. In this
15 particular instance, you put the housing inside the tooling,
16 and then there's a parting line. So as it pulse pulls apart
17 where they meet in the middle, there's a parting line, and
18 then the cavity that's produced inside the mold, you fill
19 full with an epoxy. There's other times where you might use
20 like a -- it could be an injection-molded overmolding, but
21 in this incarnation, it was a two-part epoxy that gets
22 injected into that cavity. That was the original patent
23 that we had pursued.

24 BY MR. POWELL:

25 Q. I have a question about that, actually. We'll

1 put this down for now.

2 I want to go to your direct exhibits, and it's
3 CX-0989C and it's .0008. And it's up on the screen too.

4 A. Yeah, got it. Okay.

5 Q. And these are the drawings that you created? I
6 think you testified to that.

7 A. Yeah. So this would be for a solid inner housing
8 with an overmolded outer housing.

9 MR. VIDWAN: So, Your Honor, this is marked as a
10 confidential document.

11 JUDGE JOHNSON HINES: Yeah, I understand it's
12 marked confidential. What about this document is actually
13 confidential?

14 MR. VIDWAN: Well, Your Honor, it's like the
15 entire document. We want to make sure the entire exhibit
16 does not come in because it's all together --

17 JUDGE JOHNSON HINES: All right. Are you going
18 to be asking about this figure?

19 MR. POWELL: Yes, Your Honor.

20 JUDGE JOHNSON HINES: All right. Let's stay on
21 the public record.

22 BY MR. VIDWAN:

23 Q. Okay. So this figure you yourself have only
24 pointed as ring housing to one component in this figure in
25 the lower left, right?

1 A. Right. And then potting on the shaded area.

2 Q. Potting on the other side.

3 A. Right.

4 Q. And that potting on the other side is not
5 identified by yourself as being a ring housing, right?

6 A. In this drawing, yes, but I think I'd also
7 qualify this as -- this was very, very early in the company
8 before we even knew how we were going to generate rings. So
9 I was exploring a lot of different opportunities there, but
10 yeah.

11 Q. And this is illustrating, I believe, Your Honor's
12 question about the use of overmolding. Is that correct?

13 A. Yeah. And this is one way to do it. There could
14 have been other ways. You could do it axially as well.
15 This was one of many different ways you could do that
16 overmolding.

17 Q. So I am not a person of ordinary skill in the art
18 by any means in this field. So I understand, there's one
19 metal space enclosure structure, that's the ring housing,
20 and then the potting is overmolded within a mold to create
21 the ring; is that correct?

22 A. Yeah. So on this particular case, the outer
23 surface of the ring is generated by the inner surface of the
24 mold cavity.

25 Q. The mold is the space-enclosing structure, not

1 the ring itself?

2 A. I don't consider the mold part of the ring,
3 though. That's just the manufacturing process.

4 Q. Okay. Thank you, sir.

5 And we can go to -- I believe it's a different
6 exhibit, but it's CX-0988C. It's the other drawing, exhibit
7 you testified to.

8 A. Yeah.

9 Q. And the page .0007. And I believe you testified
10 to this on direct. And I just want to clarify something.

11 In the upper image, at the very top, that has the
12 two -- the outer ring and the inner ring, between those two
13 rings is what you would call a cavity, right?

14 A. Yes.

15 Q. And in order to make this particular ring, the
16 components that you're putting in the ring need to be sized
17 and shaped, configured, if you will, to fit within that
18 cavity, correct?

19 A. No. We -- when we did the ring, we tried to have
20 a single flex and make that work across as many SKUs as
21 possible. There may have been -- at this point in time, I
22 don't think we were thinking about curved cells. If there
23 was a curved cell in this implementation, certainly it would
24 probably have to have a different cell for a different size.

25 Q. That's fair. So let's say if you wanted to get

1 -- you wanted to have a battery, a curved battery, that
2 would fit within this cavity that's depicted on the top,
3 that curved battery would have to have an appropriate size
4 and shape to fit within that cavity, right?

5 A. Within reason. We -- when we were doing the last
6 SKUs for Motiv, we tried to have a curved battery that had a
7 small amount of movement to it that allows you to have a
8 nominal size and then fit a larger size and a smaller size
9 so you could fit three SKUs per battery.

10 Q. One of the important aspects of that process
11 would be to know the dimensions of the cavity in order so
12 you can get a battery that's of the appropriate size and
13 shape, right?

14 A. Yeah. I mean, it's applicable for pretty much
15 all rings.

16 Q. Okay. Let's go back to the other exhibit that
17 you testified to today, which is CX- --sorry, you testified
18 to three. Going back to the first exhibit, CX-0989C and
19 page 0005.

20 The top says Mechio Battery Research?

21 A. Um-hum.

22 Q. That's the Mechio corporate emblem?

23 A. Yeah, I guess you could call it that.

24 Q. I don't know what to call it either.

25 A. Logo.

1 Q. And then about halfway down the page, there's a
2 listing of -- I believe it says thin film lithium,
3 Asia-based battery suppliers. Is that right?

4 A. Yes. I don't know if that's actually accurate,
5 though, because I don't think GMB was really thin film.

6 Q. Okay. GMB, what is GMB?

7 A. GMB was a company that Mike and I had visited
8 when we went to -- I think they were in China -- one of our
9 first trips when we were looking for CMs, contract
10 manufacturers.

11 Q. And GMB is the maker of the GMBPower battery?

12 A. I'm sorry, say that one more time?

13 Q. GMB makes a battery or made a battery called
14 GMBPower?

15 A. Sounds familiar, yes.

16 Q. The knowledge about how to make a curved battery
17 is not something that Motiv came up with, right?

18 A. Curved batteries for rings or curved batteries in
19 general?

20 Q. In general.

21 A. In general, that's correct, yes.

22 Q. The knowledge of how to make a small curved
23 battery is not something that Motiv came up with?

24 A. I disagree with that.

25 Q. So you believe that the delta of what you

1 invented is small?

2 A. I don't think it's small. If it was small, it
3 would have been really easy just to throw NRE at a company
4 and have them build it for us. GMB, for instance, we
5 visited them. They had a factory in the middle of nowhere.
6 No one was on-site. We left with a really shady feeling as
7 if we were not super-confident in their ability.

8 We had conversations with them afterwards about
9 what it would take for non-recurrent engineering, which it
10 says in that line right there. Require NRE. And they were
11 asking for a sizeable amount of money to develop the cell to
12 where we needed it.

13 Generally, if a vendor is able to easily make
14 something for you, the NREs are not astronomical. An NRE
15 might be around \$10,000, but when you start getting vendors
16 asking for 100, 200,000 dollars, that kind of implies that
17 it's not just a throw-together kind of thing.

18 Secondarily, every single company that we went to
19 on our Asia trip had many reservations around the ability to
20 make those cells smaller, and most of it was around the
21 sealing width for the cell. Most of the equipment that
22 these vendors were using were only able to do a 2-millimeter
23 seal width. When you assemble the battery and you fold up
24 the edges, when you're doing the bend, those 2-millimeter
25 tabs have to go somewhere, and they usually bend it over the

1 back side of the battery, and it makes the battery thicker.

2 Q. Okay. Thank you, Mr. von Badinski.

3 A. Sure.

4 Q. I have a couple more exhibits and then I'll
5 finish up.

6 Can you go to RX-0289C.

7 A. Okay.

8 Q. And this is a document that was marked at your
9 deposition. Do you recognize it?

10 A. Yeah. This I think came up in my deposition.

11 Q. That's your name at the top?

12 A. Yes.

13 Q. With the subject line "Ugh, more"?

14 A. Yeah. I'm really regretting "Ugh, more" by the
15 way. If I knew it would get this much attention, I would
16 have made it more attractive.

17 Q. And you sent this to Mike Strasser and Eric
18 Strasser, two of the cofounders of Motiv?

19 A. That's correct, yeah.

20 Q. And you included two links. The second one is a
21 Google Patents link to US 2012/0218184. Do you see that?

22 A. Yeah, if the link is to be decrypted that way, I
23 would assume so. Yeah.

24 Q. And you sent this on June 17th, 2013?

25 A. Yeah. This is probably within a month of me

1 meeting with Mike and Eric to figure out if we wanted to
2 start the company.

3 Q. This is long before any of your patents issued?

4 A. Yes.

5 Q. You understood as an inventor you had a duty to
6 find and disclose relevant prior art?

7 A. Yes.

8 Q. And you said on the last line, "This one may have
9 some teeth."

10 A. Yeah. I think to that point, I'm not a patent
11 attorney. I think at this point in time we were trying to
12 find as many representative examples as things that we
13 should present to an eventual IP counsel that were relevant.

14 And, like I said, this is most likely I found
15 this and then immediately sent it versus going through.
16 There's a lot of times where I find links and I think
17 they're relevant, so I send them to everybody so everyone
18 can view them. But I don't think it was like a substantial
19 going through claim by claim, trying to figure out if it was
20 something that would be eventually infringed upon.

21 Q. All right. Now, let's go to Exhibit CX-1141.
22 You see the patent number -- not a patent number -- this is
23 a publication number in the upper right-hand corner. It's
24 U.S. 2012/0218184. Do you see that?

25 A. I do.

1 Q. That's the same patent number that I read off for
2 the Google Patents link?

3 A. Okay.

4 Q. This is the Wissmar patent?

5 A. Yes.

6 Q. Or Wissmar publication?

7 A. Yes.

8 Q. This is the document that you said may have some
9 teeth, right?

10 A. Apparently, yes.

11 Q. All right. Thank you, Mr. von Badinski. I have
12 no further questions at this time.

13 A. Okay.

14 JUDGE JOHNSON HINES: Who knew that we were going
15 to get all the music today?

16 MR. WINSTON: I'm sorry, Your Honor. I --

17 JUDGE JOHNSON HINES: I said who knew that we
18 were going to get all the music today?

19 (Laughter.)

20 THE WITNESS: It's not too late to go outside and
21 enjoy it.

22 MR. WINSTON: May I proceed?

23 JUDGE JOHNSON HINES: Yes. Thank you.

24 EXAMINATION BY COUNSEL FOR ITC

25 BY MR. WINSTON:

1 Q. Good afternoon, Mr. von Badinski.

2 A. Good job.

3 Q. My apologies.

4 A. It's all good.

5 Q. I just have a couple of questions for you.

6 We heard some -- and I'm not sure whether this
7 needs to be on the confidential record, so if counsel or you
8 believe that your answer may need to include confidential
9 information, please let me know.

10 A. Okay.

11 Q. We had some talk about Motiv's presenting its
12 product at -- the Motiv ring at a CES conference.

13 A. Yeah.

14 Q. Can you just tell a little bit about that?

15 A. So we announced the product in -- at CES. I
16 believe it was January 2017. And there was a lot of PR that
17 had to happen before that. So we met with a lot of
18 different publications and embargoed them. So at CES, the
19 embargo lifted, and everyone gets the reviews of the product
20 that we were making.

21 Most of it was trying to get it out there in
22 front of as many people as possible to get the interest in
23 the product. It went very well. We had a lot of exciting
24 -- a lot of excitement around it. I think the preorders
25 started around that time as well, trying to get some initial

1 excitement around it, initial orders in place, so that we
2 knew we were on the right path.

3 One of the challenges with the ring is that it's
4 not a single product. You're making seven of something,
5 instead of one of something. So a ring company not knowing
6 what the customer base looks like in terms of what the
7 distribution of sizes looks like is really challenging.

8 We did a lot of preliminary checking for that,
9 but the preorders allowed us to actually get real orders
10 from people and then send out ring sizers and get real-world
11 data as far as what the demographic looked like. I'm not
12 sure if there is something else I can give you on that.

13 Q. No. I think that answers my question. So did
14 the Motiv ring receive any awards?

15 A. Yeah. We got a best of show award for CES. It
16 was a technology award. We got several others ongoing. I
17 think we got a Red Dot Award, but in all honesty, I think
18 that's just -- those are fairly easy to get, but, yeah, we
19 were pretty proud about that.

20 Q. Okay. Thank you.

21 MR. WINSTON: I have no further questions.

22 THE WITNESS: Okay.

23 JUDGE JOHNSON HINES: All right. Any redirect?

24 MR. VIDWAN: No, Your Honor.

25 JUDGE JOHNSON HINES: All right. May we excuse

1 the witness?

2 MR. VIDWAN: Yes, Your Honor.

3 JUDGE JOHNSON HINES: Yes.

4 THE WITNESS: Thank you.

5 JUDGE JOHNSON HINES: Thank you for your time.

6 THE WITNESS: Thank you.

7 (The witness stood down.)

8 JUDGE JOHNSON HINES: All right. Why don't we
9 take our afternoon break and we'll reconvene at 3:40.

10 (A recess was taken at 3:23 p.m., after which the
11 proceedings resumed at 3:43 p.m.)

12 JUDGE JOHNSON HINES: All right. Good afternoon.

13 MR. SCHULTZ: This is Christopher Schultz for
14 Complainants.

15 JUDGE JOHNSON HINES: I assume you're going to
16 call your next witness.

17 MR. SCHULTZ: We are. Complainants call Dr.
18 Majid Sarrafzadeh.

19 JUDGE JOHNSON HINES: Would you raise your right
20 hand, please.

21 Whereupon--

22 MAJID SARRAFZADEH,
23 having been first duly sworn/affirmed, was examined and
24 testified as follows:

25

1 THE WITNESS: I do.

2 JUDGE JOHNSON HINES: Thank you very much.

3 Welcome.

4 THE WITNESS: Pleasure. Thank you.

5 DIRECT EXAMINATION

6 BY MR. SCHULTZ:

7 Q. Good afternoon, Doctor.

8 A. Good afternoon.

9 Q. Can you state your full name, please.

10 A. My name is Majid Sarrafzadeh.

11 Q. And where do you work? I'm sorry, where do you
12 live, sir?

13 A. I live in Orange County, California.

14 Q. Why are you here today, Doctor?

15 A. I'm here to analyze a patent in this matter and
16 look at two potentially infringing products and domestic
17 industry products as well.

18 Q. So you're here to offer expert opinions, correct?

19 A. That's correct.

20 Q. And you have prepared some slides for us here
21 today to assist in your testimony?

22 A. I did.

23 Q. That's CDX-003 and they are shown on the board
24 here.

25 A. That's correct.

1 Q. Doctor, could you describe your educational
2 history for me, please.

3 A. I can. If you can go to the next slide, I have a
4 Bachelor of Science, Master of Science, and a Ph.D., all
5 from University of Illinois at Urbana-Champaign.

6 Q. And there are other schools listed here?

7 A. I have been a professor in electrical and
8 computer engineering at Northwestern University until the
9 year 2000. Then I moved to UCLA. Currently I'm a
10 distinguished professor of computer science and also of
11 electrical and computer engineering.

12 I have cofounded a couple of institutes at UCLA,
13 one is UCLA Wireless Health Institute, and the other one is
14 Brite Center on Minority Health Disparities. I am also
15 Endowed Chair for Innovation at UCLA.

16 Q. Thank you, Doctor.

17 Are you published?

18 A. I have a few publications. I have about 600
19 peer-reviewed articles, many of these involve variable
20 devices and systems. I also have authored four books, and I
21 have approximately 30 patents and patent publications.

22 Q. And, Doctor, what about industry experience, do
23 you have any?

24 A. I do. I have worked at Motorola and IBM. And I
25 have cofounded three companies in the area of medical

1 devices. One is MediSens. That works with adult diapers
2 that have sensors in them. The other is Wanda Health. That
3 does prediction of heart failure roughly five days before a
4 congestive heart failure attack happens. And finally is
5 Bruin Biometrics that works with sensors related to pressure
6 ulcer, and bed ulcers.

7 Q. And, Doctor, have you received any honors or
8 awards during your career?

9 A. Yes. I'm a fellow of the main institute of
10 electrical engineering, which is called IEEE. I am a
11 National Fellow of the National Academy of Inventors. Also
12 Time Magazine in the year 2020 named one of my inventions as
13 their -- as one of their medical device best product of the
14 year. It is a so-called SEM scanner, which is used to
15 predict pressure ulcer five days in advance.

16 If you recall, unfortunately Christopher Reeves
17 passed away because of pressure ulcer, so we are trying to
18 address that. This is the only electronic product in the
19 market, and it is FDA approved.

20 Q. Doctor, I believe you used the term wearable
21 devices already?

22 A. I have.

23 Q. And what does that mean?

24 A. Wearable devices are devices that are electronic
25 in nature and you wear them, either as a helmet or around

1 your wrist or around your foot, et cetera. And typically
2 they are responsible for collecting physiological monitoring
3 and motion of a human being.

4 Q. And, Doctor, do you have any experience
5 specifically with wearable devices?

6 A. I have. Many of the work I've done, including
7 many of my 600 publications, are related to wearable
8 devices. We have built a WearSens necklace that received a
9 national award from the National Science Foundation. It's a
10 necklace you wear around your neck and it monitors the
11 portion of food that one consumes. So it's all about
12 portion control.

13 I have also built a platform technology. It's an
14 insole inside a shoe which has many applications. The first
15 version had four to eight pressure sensors. This was to
16 detect pressure points for diabetes. If this is not done in
17 a timely manner, it will result in an amputation of their
18 toe.

19 The same device can be used to detect drunk
20 walking and can also be used for kids, mostly autistic, who
21 do toe-walking and through a vibration feedback in their
22 shoes will try to correct that before it gets to surgery.

23 Q. And have you testified as an expert in any cases
24 involving wearable devices?

25 A. Multiple. One was Immersion versus Meta, and I

1 have also testified in Maximo versus Apple.

2 Q. Doctor, can you turn to Complainants'
3 Exhibit 0688C in your binder, which you should have, I
4 believe, and I know it is also displayed on your screen.

5 A. Yes. Please proceed.

6 Q. What is this exhibit, Doctor?

7 A. This is a copy of my curriculum vitae, which
8 includes my educational record and related matters.

9 MR. SCHULTZ: Your Honor, we tender Dr. Majid
10 Sarrafzadeh as an expert in the field of wearable devices.

11 JUDGE JOHNSON HINES: Any objection?

12 MR. McCRUM: No objection, Your Honor.

13 JUDGE JOHNSON HINES: Thank you.

14 MR. WINSTON: No objection, Your Honor.

15 JUDGE JOHNSON HINES: Thank you. So tendered.

16 MR. SCHULTZ: Thank you, Your Honor.

17 BY MR. SCHULTZ:

18 Q. Now, Doctor, I think we can all agree that the
19 '178 patent is what this case is about. Could you give us a
20 high-level description of what this patent is about?

21 A. Yes. The '178 patent is about the physiological
22 monitor in the form of a ring. As the picture shows by way
23 of example, it captures physiological information from an
24 individual, including their oxygen saturation and heart
25 rate. And that is displayed in an app that goes hand in

1 hand with this wearable device, wearable ring device.

2 Q. And, Doctor, now I would ask you, since the claim
3 is the name of the game, if you could take us through claim
4 1 and explain those limitations for me.

5 A. I would be happy to. So claim 1 talks about as a
6 preamble, about a finger-worn wearable ring device. Then it
7 describes multiple layers of the ring. So the ring has an
8 outer or external housing component. Figure 8 shows that as
9 blue. And the cross-section of Figure 13, that's the top
10 part.

11 So when you wear this ring, that's really what
12 you see. The next part is an internal housing component.
13 That's what touches the tissue of an individual when they
14 are wearing it. More specifically, the external housing
15 component defines an outer circumferential surface of the
16 device. That's the surface outside that you see. Then the
17 inner housing component defines an inner circumferential
18 surface. That's the part that touches the tissue.

19 And the internal housing that is coupled with the
20 external housing, meaning the two of them are connected. If
21 you take a typical ring and look at it, the internal and
22 external are connected to each other, as they should.

23 Then there is a portion of the inner
24 circumferential surface of the internal housing component
25 that's configured to contact the tissue of a user when the

1 user wears a device. So you wear this ring, part of it has
2 got to touch you, the reason is for collection of
3 physiological information.

4 So these are the two parts related to external
5 and internal. Then if you could please go to the next
6 slide.

7 Q. Let me ask you one question first, Doctor.

8 A. Please.

9 Q. You have displayed Figure 8 and Figure 13 of the
10 patent.

11 What relevance do these figures have to what you
12 just talked about?

13 A. Absolutely. So Figure 8 shows an outer ring.
14 That's the external housing component shown in blue color.
15 And it also shows the inner ring, which is a purple color,
16 which is related to internal housing component. That's why
17 in the claim language I have also used the color blue and
18 purple to distinguish that.

19 Now, Figure 13 is a cross-section of the ring.
20 The top part is in blue. That's the external. The inner
21 part is the internal housing component. And there are other
22 color annotations that's what we will get to in a moment.

23 Q. And these are two different embodiments of the
24 patent?

25 A. They are.

1 Q. What's the difference between them?

2 A. For one thing, the inner ring in Figure 8 is not
3 made of potting material; whereas in Figure 13, the purple,
4 the inner housing component, is made of potting material by
5 way of example.

6 Q. We will talk a little more about potting material
7 in a moment. Can you take us through the next limitation,
8 please.

9 A. I would be happy to. So we have this external
10 part of the ring. We have the internal. The question is
11 what goes in between.

12 Well, we need to have a battery to power up the
13 circuit. So the next limitation, C, related to items that
14 go between the two rings. So first is a battery. That is
15 formed within a cavity. The cavity is between the internal
16 housing component, the purple part, and the external housing
17 component.

18 The battery comprises a shape and a size, and
19 that's configured to fit within the cavity between the outer
20 circumferential surface, the surface of the external
21 housing, and the inner circumferential surface of the
22 internal housing. So that's about the battery being in a
23 cavity.

24 And, finally, the battery extends through at
25 least a first portion of the cavity of the finger-worn

1 wearable device. So it's in a portion of that cavity.

2 If you could please proceed to the next part. So
3 we have the battery. We have the two external/internal.
4 Now we need to do processing.

5 A circuit board does that. A printed circuit
6 board, also called a PCB, that's disposed, again, between
7 the internal housing component and the external housing
8 component. And the printed circuit board extends through
9 the second portion of the cavity of the finger-worn device.
10 And the second portion is different from the first portion.

11 As a reminder, the first portion is where the
12 battery was located. So circuit board is somewhere else.
13 So so far we have external/internal, and we have almost
14 everything in between, circuit board and a battery that
15 powers up the circuit board.

16 Now we need to finish all these up. This is
17 supposed to be a physiological monitor to collect the data.

18 If you could go to 1[e], please.

19 MR. McCRUM: Your Honor, sorry. I don't think
20 that there's a question -- it's like just reading of the
21 slides. I think that there needs to be a question to elicit
22 this testimony.

23 JUDGE JOHNSON HINES: All right. I thought there
24 was one but --

25 MR. McCRUM: I'm sorry. It just seems like we're

1 flipping through, and I don't know what the question is.

2 JUDGE JOHNSON HINES: All right.

3 BY MR. SCHULTZ:

4 Q. Well, I had asked Dr. Sarrafzadeh to run through,
5 take us through claim 1. So I will ask you to take us
6 through limitation 1[e], please.

7 A. With pleasure.

8 So now it's about sensing. If you have LEDs,
9 green, red, and infrared; green is normally used to capture
10 the heart rate and red and infrared with wavelength around
11 600 and 900 for infrared, you have a good separation. And
12 they can capture the oxygenation of the blood with and
13 without oxygenation. That is used for pulse oximeter.
14 That's why we're going to see multiple colors of LED in this
15 patent.

16 So there are these sensors. They are coupled to
17 the printed circuit board. They have to be electrically
18 connected to the circuit board in order to receive and send
19 information from it.

20 And they are also coupled to the battery. They
21 need to be powered up somehow. So that's what this
22 limitation is talking about.

23 And it is configured in such a way that the data
24 of the user is obtained through the internal housing
25 component. Why? LEDs shine light through the tissue.

1 That's reflected back and received by what we call
2 photodiodes or light receivers. And photodiodes will take
3 the optical signal, red, infrared, green, and translate that
4 into a green signal.

5 Then the processor will take those signals and do
6 interesting things with them. So this is all about the
7 sensing of such a ring.

8 Q. And through the internal housing component stated
9 in claim 1 here, how do those sensors acquire data through
10 the internal housing component?

11 A. So the internal housing component either has got
12 to have a hole in it, as you see in Figure 8, or they have
13 got to be transparent potting material, as you see in Figure
14 13.

15 So, A, the light can go through them to hit the
16 tissue and the reflected light has got to come back through
17 this transparent potting material to be received by the
18 so-called photodiodes, which is the partner of LEDs in this
19 claim language.

20 Q. And what happens to the data received by the
21 photodiode?

22 A. The data gets some local processing as a signal,
23 as a continuous signal. Then they are sent through an app
24 to a form, for example. And the app can perform algorithms
25 on those signals and display various things, such as oxygen

1 saturation, heart rate, and the like.

2 Q. How does an LED tell us what your heart rate is?

3 A. So the way it works, the idea really goes back to
4 1972, Dr. Iyagi from Japan, discovered this idea and
5 patented the idea, where if you shine a green LED on one
6 side and red and infrared on the other side, and capture
7 that data, because of the particular wavelength of these
8 LEDs, you can capture how much of the blood is oxygenated
9 and how much of it is not.

10 So by doing a basic algorithm on the division of
11 the signal that you receive, you know the oxygen saturation,
12 which is extremely important.

13 Q. Doctor, we have mentioned the term "potting
14 material."

15 A. We did.

16 Q. And in the context of -- well, what is shown in
17 Figure 3, if anything, with respect to potting material?

18 A. Figure 13, the purple portion, is the potting
19 material. That is discussed in the patent. So the potting
20 material seals the printed circuit board and the battery and
21 everything else that you see between the external housing
22 and the internal housing.

23 Q. And how is potting material applied?

24 A. Originally it's in a liquid form. I am going to
25 actually show you a movie of that, if you don't mind. It's

1 very interesting to watch.

2 It gets what we call cured, so it becomes hard.
3 So it seals the material. And because in cases it is
4 transparent, it can receive light that goes to the tissue
5 and back from the tissue.

6 Q. I see. Now, I assume you've analyzed some
7 products in arriving at your opinions?

8 A. I have.

9 Q. What products have you looked at?

10 A. I have looked at two domestic industry products
11 and products of Ultrahuman and RingConn. If you could go to
12 the next slide, please.

13 I am showing here the so-called Horizon, which is
14 a Generation 3 Oura Ring, along with its application, the
15 app that we discussed. So this is a picture of that, which
16 as they advertise it, Oura does, it's a sleek circular
17 design.

18 And if you could go to the next slide, please.
19 The previous one, two previous slides, if you don't mind.

20 This is another version of Gen. 3 Oura Ring. It
21 is called Heritage. As you can see on the top, it's less
22 curvy than the rest of the ring, although it has some curve
23 into it. And, again, it goes hand-in-hand with the
24 corresponding application.

25 Q. And what are the differences between Heritage and

1 Horizon, the two Gen. 3 products?

2 A. They are really nearly identical. Visually, as
3 you can see, Heritage has less curvy on the top. That is
4 actually the ring that I use myself. So the top reminds me
5 that the top part has got to be on top of my finger, not at
6 its bottom or side.

7 Q. So the differences between the two rings are
8 primarily aesthetic; is that fair?

9 A. That's a fair characterization.

10 And in the next slide I am showing the Gen. 4
11 Oura Ring along with its application. This is a picture of
12 the Oura ring. And as discussed -- and here as you can see,
13 the internal housing component is metallic in nature as
14 opposed to being potting material.

15 Q. And what about the Respondents' products, you
16 reviewed those as well, correct?

17 A. I did. I'm showing both of them here on the left
18 is the RingConn Smart Ring. And on the right is the
19 Ultrahuman ring. And both of them have metallic external
20 housing component and potting internal housing components,
21 which is analogous to Gen. 3 of Oura rings, both of them.

22 Q. Now, Doctor, with respect to these four products,
23 did you arrive at any opinions?

24 A. I have.

25 Q. Can you summarize those for us, please?

1 A. With pleasure. I have analyzed both of these
2 products along with the domestic industry products. My
3 analysis shows that RingConn accused product infringes
4 claims 1, 2, 12 through 14 of the '178 patent.

5 My analysis also verifies that the Ultrahuman
6 accused product infringes, again, claims 1, 2, 12 through 14
7 of the same '178 patent. I also believe, based on my
8 analysis, that the Oura DI or domestic industry products
9 Gen. 3, both Heritage and Horizon, they do practice claims
10 1, 2, and 12 to 14 of the '178 patent. And Gen. 4 also
11 practices claims 1, 2, and 12 through 14 of the same '178
12 patent.

13 Q. Doctor, I take it you reviewed some materials in
14 making -- arriving at your opinions?

15 A. I have.

16 Q. Can you summarize those for me at a high level?

17 A. Yeah. This is not all the materials, but the
18 majority of the material is the patent, '178, and its file
19 history, the actual physical products, technical
20 documentation for both Complainants and Respondents. I have
21 analyzed the product teardowns and images.

22 I have analyzed CT scan images of these products.
23 I have looked at the source code and firmware codes, so
24 software, if you want to call it that, and I have -- of the
25 material I have looked at, parties' corporate deposition

1 transcripts.

2 Q. So let's talk a little bit about item 4 here.

3 What do you mean by product teardowns and images?

4 A. Sure. So you can take a product, such as a ring,
5 let's say, by Ultrahuman or RingConn or Oura, cut it in half
6 or cut it in four pieces. By doing that, you can see
7 basically what is inside of them and taking picture of it
8 with various types of cameras. So that's what teardown is
9 referring to.

10 Q. So you did that with respect to all four
11 products?

12 A. I did.

13 Q. You cut the ring in half, length-wise?

14 A. Both.

15 Q. Both length-wise and width-wise?

16 A. I did both, yes.

17 Q. And what --

18 A. Because you learn different things, depending on
19 how you cut it.

20 Q. So those give you different cross-sections,
21 correct?

22 A. It sure does.

23 Q. And what are CT scan images?

24 A. These are images done with CT where you can
25 basically, without tearing apart any product, you can

1 basically see various concentrations of material inside
2 them. So if there is a metal inside one of these CT scans,
3 it would verify that.

4 Q. Now, when you evaluated whether these four
5 products were covered by the claims of the '178 patent, did
6 you consider the level of ordinary skill in the art?

7 A. I did. I understand that to be important where
8 you analyze a patent, so I did exactly that. I believe a
9 person of ordinary skill at the time of the '178 patent,
10 which is around 2013, should have at least three layers of
11 -- three years of experience with R&D, research or
12 development of health or medical devices or consumer
13 products.

14 I also believe that one of ordinary skill should
15 have a related degree, which is at least a Bachelor's Degree
16 or above, in mechanical, industrial, or electrical
17 engineering, or a related field.

18 Q. And in 2013, Doctor, what was your skill
19 vis-à-vis this label?

20 A. I definitely had those minimum requirements.

21 Q. And were you familiar with persons who did meet
22 this level?

23 A. Yes. As I told you, I have cofounded three
24 companies in the area. I have educated in the past 30 some
25 years, about 5- to 7,000 engineers. I am very familiar, and

1 I have worked in companies where I have managed big teams of
2 engineers. So, yeah, very familiar with their education,
3 how they think, how they work.

4 Q. Did you apply any claim constructions to your
5 analysis?

6 A. I did. So there is a claim term, which is "a
7 finger-worn wearable ring device." That was the preamble of
8 the, for example, claim 1 that we looked at, the
9 construction states that the preamble is limiting.

10 "Positioned or configured to fit within a
11 cavity," I am using the construction of it being plain and
12 ordinary meaning, "which is positioned/configured to fit
13 within a hollow space."

14 "The internal housing component coupled with the
15 external housing component," again, that's plain and
16 ordinary meaning, which is "the internal housing component
17 is connected with the external housing component."

18 The fourth claim term that I have considered is
19 "an internal/external housing component." Again, that's the
20 plain and ordinary meaning of it, which is "an
21 internal/external structure that encloses a space and which
22 does not necessarily exclude potting material."

23 And, finally, "circumferential" again is plain
24 and ordinary meaning, and it does not require to be a closed
25 shape.

1 Q. Now, Doctor, we have a lot of limitations and
2 four products to go through, so take a deep breath, but I
3 would like you to explain to me why the Respondents' accused
4 products infringe the claims of the '178 and why the
5 Complainants' domestic industry products also practice those
6 claims?

7 A. So if it is okay for you, what I have done is I
8 go limitation by limitation. And within a limitation I
9 discuss all four products. That's the way I have organized
10 my presentation.

11 Q. That makes sense to me.

12 A. Thank you. So, first, the preamble. It's "a
13 finger-worn wearable ring device." RingConn, we see that
14 there is a ring and you can wear that on somebody's finger.

15 If we could go to the next slide, actually in the
16 box, that comes with RingConn, it does talk about the ring
17 with a charging case, et cetera. And it talks about the
18 product name being a smart-health monitoring ring. So that
19 fits the preamble.

20 Q. And this box, Doctor, CX-0694, what is that?

21 A. That's a box that the ring came in it.

22 Q. So this is an example of the physical rings you
23 evaluated in your analysis?

24 A. It absolutely is. That's a real picture on the
25 left.

1 Q. What about Ultrahuman, do they practice the
2 preamble of claim 1?

3 A. They did. Again, if you look at the box, the
4 picture of Ultrahuman is shown on the left, the box on the
5 right. And I have brought up the writing which says a
6 "Smart Ring wearable." Something that you can wear and
7 "smart" supposedly means it can perform some physiological
8 monitoring.

9 JUDGE JOHNSON HINES: Counsel, before you go on,
10 it would be helpful when either the witness testifies or you
11 ask questions to identify the slides by slide numbers.

12 MR. SCHULTZ: Absolutely. Sorry about that, Your
13 Honor.

14 JUDGE JOHNSON HINES: No, no problem.

15 BY MR. SCHULTZ:

16 Q. And for the record, we are on slide 24.

17 Let me ask you a quick question about the
18 preamble, generally.

19 A. Please.

20 Q. Does the ring have to be worn by a person to
21 practice the preamble of the '178 patent?

22 A. Meaning somebody has got to wear it and bring it
23 to the country? No. It's a ring, the physical product.

24 Q. Why not?

25 A. One of ordinary skill in the art, including

1 myself, that does not make any sense to me. I understand
2 that the Respondent made that argument. I don't buy it.

3 Q. On to slide 26, what are we showing here, Doctor?

4 A. These are the two Oura Gen. 3, as you note, as we
5 saw before, there are two of them. They are also wearable
6 rings. And they are devices. So left and right shows the
7 two versions of Gen. 3.

8 Q. And these domestic industry products both
9 practice the preamble, correct?

10 A. Both Gen. 3, and if you could go to the next
11 slide, Gen. 4, which is the other version of the domestic
12 industry, that's also a ring that you wear, so, yes, it
13 absolutely practices the preamble.

14 Q. For the record, on slide 24, we also have an
15 example of Ultrahuman's product here, correct?

16 A. Yes. As we discussed a few minutes ago, that's
17 the Smart Ring wearable.

18 Q. And that's CX-0693?

19 A. It is.

20 Q. So on slide 29, Doctor, what are you summarizing
21 here?

22 A. So I'm going to use this table as a guideline as
23 we go through the presentation. On the left, I'm showing
24 all the limitations that we're going to go through one by
25 one. And each column shows one of the products.

1 So the first two are RingConn and Ultrahuman
2 products. And the next two columns are Gen. 3 and Gen. 4
3 products. A checkmark in green means it practices that
4 limitation; and an X with a red means it doesn't. That's
5 the annotation I tried to use before I started this project.

6 Q. Thank you.

7 And in slide 30, does the RingConn accused
8 product practice limitation 1[a]?

9 A. Yes. So the RingConn accused product has an
10 external housing component shown in goldish color on the
11 slide 30 that defines an outer circumferential surface.
12 That's the surface of the ring outside of the finger-worn
13 wearable ring device.

14 Q. And what are you showing on slide 31 with respect
15 to RingConn's product?

16 A. Well, so on the left is what we are calling in
17 engineering a blowout of a product. That's actually from
18 the patent. That's Figure 8 that we saw before.

19 And on the right is a document from RingConn that
20 is also a blowout that looks very similar to Figure 8 of the
21 patent. And the last part, way on the right, I have
22 annotated that with a color blue. That's the annotation I'm
23 using for the external housing component.

24 Q. And this document, CX-0567, with the title
25 Engineering Breakthrough, where did that come from?

1 A. That comes from RingConn. That's their
2 annotation.

3 Q. So they produced this document?

4 A. Yes.

5 Q. Now, I believe one of the counsels for
6 Respondents talked about or criticized your analysis based
7 on marketing literature.

8 A. Yes.

9 Q. Is this a marketing document?

10 A. It's a document from RingConn, which might be a
11 marketing or other uses.

12 Q. And did you rely on this document?

13 A. No. I relied on my CT scan cutout, but this
14 document matches my finding through the actual products.

15 Q. So did you confirm that this exploded view is
16 accurate in all relevant respects with respect to your
17 analysis?

18 A. It is accurate with respect to the external
19 housing component, the internal housing component, and PCB,
20 and battery that goes inside.

21 Q. And RingConn, I guess, is trying to advertise, it
22 says, an engineering breakthrough by displaying its product;
23 is that right?

24 A. It is their annotation, not mine.

25 Q. Have you seen any evidence that RingConn lies to

1 their customers about what their product looks like?

2 A. Oh, I have not seen any evidence. I hope not.

3 MR. SCHULTZ: Your Honor, may we go on the
4 confidential record?

5 JUDGE JOHNSON HINES: I assume we're on
6 Respondents or --

7 MR. SCHULTZ: Respondents, correct.

8 JUDGE JOHNSON HINES: All right.

9 (Whereupon, the hearing proceeded in confidential
10 session.)

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1 O P E N S E S S I O N

2 BY MR. SCHULTZ:

3 Q. Go ahead, Doctor. Next slide, just for the
4 record, slide 34.

5 A. Correct. So slide 34 on the left, CX-403, and on
6 the right, CX-405, I'm showing a picture of the RingConn
7 accused product. I am pointing to the external housing
8 component and the surface of it being the outer
9 circumferential surface.

10 And the ring on the right is the same ring, just
11 a different view of it.

12 Q. So we haven't specifically talked about this, but
13 why is the RingConn accused product, why does it have an
14 outer circumferential surface as you have labeled here?

15 A. Well, that's the surface -- so when you wear the
16 ring, the surface that you see, that's the outer
17 circumferential surface. It's a surface related to external
18 housing component.

19 Q. Why is it circumferential?

20 A. It is circumferential because it is curved.

21 Q. Thank you, Doctor.

22 And slide 35, does the Ultrahuman accused product
23 practice claim limitation 1[a]?

24 A. It does, in a very similar manner. In fact, on
25 the left we see the picture of a ring.

1 Q. This is slide 36?

2 A. Slide 36. Again, I am showing Figure 8 from the
3 patent. And on the right I'm showing a document from
4 Ultrahuman, which is a blowout version of the ring. It
5 shows the external housing component. I have colored it
6 myself with color blue with external housing component
7 pointing to that.

8 Q. Now, CX-0537 on slide 36, what is that?

9 A. That's a document from Ultrahuman. And it shows
10 a blowout version of the ring. And this blowout version, as
11 we have seen, RingConn has used it, Ultrahuman has used it,
12 but also has the patent itself.

13 Q. So this is a document Ultrahuman uses to show its
14 customers how its product works?

15 A. I suppose that's the purpose of that document.

16 Q. Or at least how it is constructed?

17 A. Correct.

18 Q. And what are we showing in slide 37? What is
19 Exhibit 0314?

20 A. CX-314 on slide 37, we have the external housing
21 component, again, that I am pointing to, and the surface of
22 that, which is the outer circumferential surface.

23 Q. And what about Oura's Gen. 3 products?

24 A. Gen. 3 DI product, again, has an external housing
25 component as can be observed from the picture on the left.

1 And that also has an outer circumferential surface of the
2 ring.

3 Q. And slide 39, what are we showing here?

4 A. So as we -- again, on the left it's a blowout
5 picture from the patent, Figure 8. On the right is from
6 Oura, a blowup version. And here I'm highlighting, again in
7 color blue, the external housing component. That's the
8 outermost part of the ring.

9 Q. So the exploded view here on slide 39, that looks
10 very similar to the Respondents' exploded views you have
11 already pointed to.

12 A. They are very similar. And very similar to
13 Figure 8 of the patent.

14 Q. Whose was first?

15 A. Oura was before the Respondent.

16 Q. And what are we showing on slide 40?

17 A. This is, again, Gen. 3, where I am highlighting
18 the external housing component on CX-0174 and the outer
19 circumferential surface. And in CX-0142 on slide 40 is
20 another version of Gen. 3 with a different view. Again, I
21 am pointing to the external housing component and the outer
22 circumferential surface.

23 Q. So there's a slight ridge on the Gen. 3 product
24 to the right on slide 40?

25 A. Yes.

1 Q. Does that affect your opinion that this product
2 has an outer circumferential surface?

3 A. No.

4 Q. Why not?

5 A. Because that's still a curve. It's less curvy,
6 if I may use that term with respect to the others, but,
7 nevertheless, it has a curve.

8 Q. And what about, on slide 41, what about Oura's
9 Gen. 4 product?

10 A. Again, as can be seen, there is an external
11 housing component, which is shown in rose gold color. And
12 the next slide, slide 42, I am showing two different views
13 of the Gen. 4 product, both on the left and right.

14 On both views I am pointing to the external
15 housing component and the outer circumferential surface of
16 it.

17 Q. And slide 43, your summary?

18 A. Yes. So I have summarized my finding based on my
19 analysis of limitation 1[a], having to do with the external
20 housing component. And as we went through it one by one,
21 both accused products and both DI products meet this
22 limitation.

23 Q. Okay, Doctor. On slide 44, let's talk about the
24 next claim limitation.

25 Does the RingConn accused product practice

1 limitation 1[b-i]?

2 A. Yes, we are done with the external, as I was
3 describing when we talk about the claim. Now we get to the
4 internal housing component and everything related to that.

5 So RingConn has an internal housing component
6 that defines an inner circumferential surface of the
7 finger-worn wearable ring device.

8 Q. And what are you showing here on slide 45?

9 A. Again, on the left is the Figure 8 we have been
10 using, except I have highlighted the inner ring here with
11 the color purple. I am using color purple for the internal
12 housing component and the color brownish gold is for the
13 inner circumferential surface. So I have colored those in
14 Figure 8.

15 On the right, CX-0567, shows the same blowout of
16 RingConn where I have highlighted and colored the internal
17 housing component with the color purple and the inner
18 circumferential surface with this brownish/goldish color.

19 Q. And why is that in a -- why is that inner portion
20 a circumferential surface?

21 A. Because the part of it that is relevant is also
22 of a curved surface. And as we shall see, I am especially
23 going to focus on the part that is covered by the battery.

24 Q. Now, slide 46 also showing RingConn's accused
25 product, is this one of the teardowns you were talking about

1 earlier?

2 A. Yes, it is.

3 Q. And what does this slide show?

4 A. So it's a teardown from -- a cost teardown of the
5 RingConn product. The shading in purple and the dotted line
6 that's brown is done by myself to point out to the internal
7 housing component and the inner circumferential surface
8 around the battery.

9 Q. So we talked about potting material. Is there
10 potting material shown in CX-1040?

11 A. Yes. In particular, the figure on the right, you
12 see the green color as a background.

13 Q. Doctor, would you like to use a laser pointer?

14 A. I have one. I appreciate it. Oh. Oops, sorry.

15 So here these transparent material on the potting
16 material, which is the internal housing component. And the
17 way you can tell it's transpired, you can actually see the
18 vertical and horizontal line in the background.

19 Q. So let me just stop you there. So the
20 transparent portion is the portion -- for example, you can
21 see through and see a line on the -- whatever page or
22 background that is?

23 A. That's correct.

24 Q. And you can also see the color, right?

25 A. That's correct.

1 Q. Now, this transparent portion, this proceeds all
2 the way around the ring?

3 MR. McCRUM: Your Honor, sorry. I'm going to
4 object as leading. I have been trying not to do that, but
5 that's three leading questions in a row.

6 JUDGE JOHNSON HINES: All right.

7 BY MR. SCHULTZ:

8 Q. Where is the transparent portion on this drawing,
9 if anywhere?

10 A. So as you can see and as you would expect, the
11 transparent portion goes all the way around the ring.

12 Q. Is it in the area of the battery? Because I
13 can't -- this figure, you can't see it that well.

14 A. There are some around the battery, yes.

15 Q. There's a layer of transparent material?

16 A. Absolutely. So if you look at the battery on top
17 or on the right picture, just below it you see -- barely,
18 but you do see the transparent material, yes.

19 Q. And what did you label as the inner
20 circumferential surface on slide 46?

21 A. So that's the surface of internal housing
22 component around the battery area.

23 JUDGE JOHNSON HINES: Counsel, I have a question.

24 MR. SCHULTZ: Yes.

25 JUDGE JOHNSON HINES: The teardown that is shown

1 in CX-1040 here on slide 46, was that provided as a physical
2 exhibit?

3 MR. SCHULTZ: Yes, Your Honor.

4 JUDGE JOHNSON HINES: All right. Do you know the
5 number? Or if not, can you get it for me?

6 MR. SCHULTZ: It should be -- it should have been
7 on this slide. I apologize, Your Honor.

8 JUDGE JOHNSON HINES: It's all right.

9 MR. SCHULTZ: But it is a CXP exhibit. And we
10 will provide it.

11 JUDGE JOHNSON HINES: All right. Thank you.

12 MR. SCHULTZ: Whether it is after a break or we
13 will get -- but we will provide that.

14 BY MR. SCHULTZ:

15 Q. Doctor, turning back to the figure on the left
16 for a moment -- well, let's look at the figure on the right.
17 You identified the transparent portion as potting material.

18 A. Yes.

19 Q. That layer of potting material, correct?

20 A. Correct.

21 Q. There is a darker portion to the left of that and
22 it's rather prominently outlined. Do you see that?

23 A. Yes. It's a dark, almost blackish color.

24 Q. And it is also on the closeup on the image to the
25 left, it's to the left of the material that you outlined in

1 purple?

2 MR. MCCRUM: Your Honor, I have an objection.
3 Still leading questions, but I also don't think that this
4 testimony is in Dr. Sarrafzadeh's expert report or his
5 deposition.

6 MR. SCHULTZ: Your Honor, with all due respect, I
7 am not leading. I am just trying to set him up so he knows
8 what I'm asking him.

9 JUDGE JOHNSON HINES: So I agree with that. And
10 I assume that the Doctor identified information in his
11 expert report that corresponds to these claim elements.

12 MR. SCHULTZ: To these claim elements,
13 absolutely, Your Honor.

14 JUDGE JOHNSON HINES: All right.

15 MR. MCCRUM: But my objection is specific to
16 testimony and opinions about these different materials, Your
17 Honor, this black -- this so-called black versus
18 transparent. That's not in his expert report, nor did he
19 testify about that at his deposition.

20 MR. SCHULTZ: Your Honor, I disagree with that.
21 He was asked -- these images were at his deposition. He was
22 asked questions about them. And he was asked about material
23 between the potting material and the external housing
24 component.

25 JUDGE JOHNSON HINES: All right. I'm going to

1 allow it.

2 BY MR. SCHULTZ:

3 Q. So, Doctor, turning back to that black material,
4 blackish material between the transparent inner housing
5 component layer and the external layer, the external shell,
6 we can call that, do you know what that is?

7 A. That's a soft material. It has a foaming nature.
8 And you can see it goes pretty much around the ring for the
9 most part. And that's separate from the potting material
10 that we looked at earlier.

11 Q. Okay. Let's move on to the next slide, Doctor.

12 A. Please.

13 Q. And with respect to Ultrahuman, does their
14 product practice limitation b-i?

15 A. Yes, they also have an internal housing component
16 that defines an inner circumferential surface of the ring.

17 Q. And on slide 48, what are we showing here?

18 A. The left, Figure 8 from the patent with the same
19 annotation that matches the color of the limitation above,
20 and on the right is a document from Ultrahuman which, again,
21 in engineering we call it a blowout document.

22 Here I have colored with purple and with light
23 brown, both the internal housing component and the inner
24 circumferential surface of it.

25 Q. And why is the portion you labeled as the inner

1 circumferential surface, why is that circumferential?

2 A. That's a curved material. And that's a surface.
3 And that's defined by the internal housing component.

4 Q. Doctor, we have what looks like similar teardown
5 images with respect to Ultrahuman's product on slide 49.

6 What are these images on slide 49?

7 A. So on the right, again, those purple and brown
8 are my coloring and arrows are my annotation, which I'm
9 trying to show the internal housing component and the inner
10 circumferential surface. On the left, again, you see the
11 potting material is transparent. You can see through it.

12 And other material behind that is not. So it's a
13 different material. Again, it has a soft nature.

14 Q. So the different material you're referring to,
15 again, is a -- you can see it by the demarcation between the
16 transparent material and the, I'll call it, a grayish
17 material; is that right?

18 A. That's correct. On the left the demarcation is
19 very clear. On the right the demarcation is between that
20 material and the purple that I have colored.

21 Q. And how far does that transparent layer proceed
22 around the interior of the ring?

23 A. It goes all around the interior, as one would
24 expect. You can actually visually see a ring and verify
25 that.

1 Q. And on slide 50, what are you showing here,
2 Doctor?

3 A. Here, again, is just a ring from Ultrahuman. The
4 reason I'm showing this is that they call the inner part the
5 inner shell, very similar to the inner circumferential
6 surface.

7 Q. And this is slide 50, correct?

8 A. Slide 50, CX-672 and the writing on this slide on
9 the left, precision coated, et cetera -- sorry, precision
10 casted, that's the writing from Ultrahuman.

11 Q. So this is Ultrahuman's document?

12 A. It is.

13 Q. And they call their potting material a smooth
14 inner shell, correct?

15 A. They do.

16 Q. Now, let's talk about the domestic industry
17 products with respect to this limitation.

18 Does the -- do the Gen. 3 products practice
19 limitation 1[b-i]?

20 A. They do. You can see that in the picture and I
21 believe I have a slide on that next.

22 Q. And this is slide 52?

23 A. It is. Again, I'm showing Figure 8 with the
24 coloring that I used before. And on the right is a blowout
25 version of Gen. 3. I have colored with purple and with

1 brown the inner circumferential surface and the internal
2 housing component.

3 Q. What are we showing on slide 53 with respect to
4 the Gen. 3 products?

5 A. Really the same thing. It is just a different
6 view of the Gen. 3 product. I am pointing to the internal
7 housing component, the potting material, and the inner
8 circumferential surface of it.

9 Q. And what about on slide 54 and 55, what about
10 Oura's Gen. 4 product? Does that practice this limitation?

11 A. It does, for a very similar reason. It has an
12 internal housing component and also an inner circumferential
13 surface. We see that on the slide 55, where I have pointed
14 to both components and surfaces.

15 Q. And, again, you're showing -- these exhibits are
16 -- well, let me ask you.

17 What are these exhibits that you're displaying?

18 A. All right. These are actual pictures of Gen. 4
19 Oura product. The left one, CX-699C, is laying that flat on
20 a surface. And 667 is the ring standing up. So just two
21 different views of Gen. 4 ring.

22 Q. Okay, Doctor. And could you explain your summary
23 slide here on slide 56?

24 A. Following the practice that I have followed so
25 far, I have put a green checkmark where the limitations are

1 met. And we will see for both accused products and for both
2 DI products, limitation 1[b-i] related to internal housing
3 component are met.

4 Q. Okay. Let's move on to the next limitation.

5 What is that limitation, Doctor?

6 A. So this has to do with connectivity. We want the
7 internal housing component and the external housing
8 component to be somehow connected together. Otherwise there
9 would be a hole, dust will get into it. That's not a good
10 engineering practice.

11 So this limitation is exactly about that, about
12 the internal housing component coupled to, i.e., connected
13 with the external housing component.

14 Q. And does the RingConn accused product practice
15 this limitation?

16 A. It does.

17 Q. Can you explain how?

18 A. Yes. So this is another one of my --

19 Q. By "this," you mean slide 58?

20 A. Yes, CX-1035, is another cross-section and it
21 shows the potting material kind of on top, here colored in
22 purple, and the external housing component colored in blue,
23 following the coloring that I have used for the limitations
24 themselves.

25 And you see between the purple and blue I have

1 drawn a dashed rectangle, which shows the connection, as it
2 should be. They are connected in that exact position.

3 Q. And how is that connection made? Are there
4 properties about the potting material?

5 A. Yeah, potting material adheres to these metallic
6 external housing components.

7 Q. Now, this teardown is a little different from --
8 it's a different dimension than the last one we looked at?

9 A. Yes. The last one, you put the ring flat on a
10 surface, and you cut that in a plane parallel to the plane
11 that you put it on. Here you would turn the ring by 90
12 degrees and, again, cut it in a plane parallel to the
13 surface that you placed it.

14 Q. What else are we seeing here in terms of what
15 look like two roughly outlined rectangles?

16 A. So we see the two rectangles. That shows the
17 connection in the middle. We see part of a printed circuit
18 board with some soft material at the bottom.

19 Q. What about the Ultrahuman accused product, does
20 that practice limitation 1[b-ii]? And we are on slide 60
21 and 61.

22 A. Yes. It does practice. If you go to the next
23 slide, again here I'm showing the connection. I don't know
24 if we have coloring of this. That would be helpful. Thank
25 you very much.

1 So the internal housing component again is
2 colored in purple, and the external housing component is
3 colored in blue. And, again, with a dashed rectangle I am
4 showing the part where they are coupled to each other, i.e.,
5 connected to each other.

6 Q. And what is shown between the external and
7 internal housing component in this slide?

8 A. So that quote/unquote "pink" has many layers.
9 One would understand that to be the battery that is used in
10 the product.

11 Q. Okay. We will talk about the battery later, but
12 I just wanted to point that out.

13 A. Thank you.

14 Q. Slide 63, what about the Oura Gen. 3 DI products,
15 does that practice this limitation?

16 A. It does. The next slide, I have the ring, so
17 this is slide 64, CX-0176. I have laid the ring flat on a
18 surface. I am pointing to the internal housing component
19 and external housing component and exactly between them
20 there is a connection.

21 If you actually take one of these rings and look
22 at it, you will see the connection yourself. It is not hard
23 to miss.

24 Q. And your point, what are you pointing to with
25 respect to the internal housing component here?

1 A. So that's the potting material. That's the
2 internal housing component. And the metallic part is the
3 external housing component.

4 Q. And slide 65 and 66, what about the Oura Gen. 4
5 product, does it practice this limitation?

6 A. It does. This is a picture, CPX-12.0012, is a
7 picture of the ring standing up. I am pointing to the
8 external housing component, which is metallic, and internal
9 housing component, which is also metallic. And it may be
10 hard to see in this picture, but there is potting material
11 in between.

12 If you actually look at the ring closely with or
13 without a magnifying glass, you can see that potting
14 material. That's what provides the connection that's
15 required of this limitation.

16 Q. The potting material provides a seal between the
17 external and internal housing components?

18 A. It does, which is a connection.

19 Q. And, Doctor, on slide 67, do all four products
20 practice limitation 1[b-ii]?

21 A. That's what my analysis show.

22 Q. Let's move on.

23 JUDGE JOHNSON HINES: I'm going to suggest that
24 we end for the day.

25 MR. SCHULTZ: Very good. Thank you.

1 JUDGE JOHNSON HINES: Counsel, I would like to
2 get for slides 46 and 49, what the CPX numbers are. And I
3 would like to get an understanding of what the CPXs are.
4 Sometimes CPXs are photos, whether the CPX is a photo or it
5 is the actual teardown.

6 MR. SCHULTZ: We also have physicals, Your Honor,
7 of the torn-down ring.

8 JUDGE JOHNSON HINES: All right. I would like to
9 have those available.

10 MR. SCHULTZ: We will bring those tomorrow.

11 JUDGE JOHNSON HINES: All right. Also, my --
12 never mind. I was going to say my deck is missing slide 59,
13 but I see it is at the end, so I see it is there. All
14 right. So we will end for today.

15 And I will see you all tomorrow morning at 9:00.
16 Thank you.

17 (Whereupon, at 4:50 p.m., the proceedings
18 recessed, to reconvene at 9:00 a.m. on Thursday, December
19 12, 2024.)

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C O N T E N T S

WITNESS	DIRECT	CROSS	REDIRECT	RECROSS	STAFF
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1 CERTIFICATE OF REPORTER

2 TITLE: Certain Smart Wearable Devices

3 INVESTIGATION NO: 337-TA-1398

4 HEARING DATE: December 11, 2024

5 LOCATION: Courtroom A

6 NATURE OF HEARING: Evidentiary Hearing

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