

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., AND SAMSUNG
ELECTRONICS AMERICA, INC.,
Petitioner,

v.

OURARING, INC.,
Patent Owner.

IPR2025-00147
Patent 11,188,124 B2

Record of Oral Hearing
Held: May 13, 2026

Before: LINDA E. HORNER, NEIL T. POWELL, and
MICHAEL A. VALEK, *Administrative Patent Judges*.

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P R O C E E D I N G S

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MR. HABER: May it please the Board, Benjamin Haber for
Petitioner Samsung. With me, as announced, is Brooke Wilner, who will be
doing a LEAP portion of this presentation. I have on Slide 2, an overview.
I'm going to begin with a brief overview of the alleged invention, an
overview of the prior art. I'll be discussing the Mestas-based grounds, and
then Ms. Wilner will come and discuss the Yuen-based grounds and
secondary considerations.

So beginning with the alleged invention, as Your Honors noted,
this is related to patents that we have discussed previously. The '124 Patent
is directed to a wearable computing device, specifically in a ring form factor
that's shown on the front page of the patent in Slide 4. The '124 Patent
shares -- is a continuation and shares a common specification with the '034
patent that was previously invalidated in a prior IPR proceeding.

As we've discussed, the challenged patents focus on internal
packaging of sensor components and other electronic components in a
wearable form factor. The challenged patents are not about miniaturization
of those components. They presume that those components exist in the prior
art, and it's simply about putting them in a ring form factor.

As we've discussed previously, Patent Owner's expert Dr. Mercier
has looked at the past patent specification and agreed that the patents are not
about battery manufacturing. They don't include battery implementation
details. That is not the focus of the patents. In this proceeding, again, I
asked Dr. Mercier specifically a little bit more particularized questions about

1 the claims of the '124 Patent. Given that battery miniaturization details are
2 not included in the '124 Patent, claims require a finger-size battery. Dr.
3 Mercier's opinion is that manufacturing or otherwise acquiring a finger-size
4 battery is outside of the level of skilled in the art.

5 I asked him, how would one of skill implement the invention of
6 Claim 1? What Dr. Mercier said, I think, is telling. What he said is after the
7 patents were filed, the inventors took a path that would not be obvious to a
8 skilled artisan. They had to acquire a battery factory. They had to go
9 through kind of extra steps that are -- that were necessary to implement
10 Claim 1. None of those steps are included in the patent, and none of those
11 extra steps that the inventor had to go through are disclosed by the patent.

12 And so this leads us to one of two situations: either the first, Dr.
13 Mercier's opinion is correct, and the patent does not comply with Section
14 112 because it doesn't include necessarily implementation details; or the
15 second alternative is that Dr. Anthony's opinions are correct, and all of these
16 battery implementation details are within the level of skilled in the art and
17 would have been known to those of skill in the art. And in fact, Dr.
18 Anthony's opinion is consistent with the requirements set out by the Federal
19 Circuit in *Visual Memory*, for example.

20 What the Federal Circuit said is that a patent need not teach and
21 preferably omit what is well known in the art. And that is exactly what Dr.
22 Anthony has described. All of these details are well known in the art, and
23 the patent does not teach them and omits them. And so left with those two
24 choices, what we would present in here is that Dr. Anthony's opinions are
25 correct and Dr. Mercier's are not.

1 So a brief overview of the prior art, I think we can hit this
2 relatively quickly. These three references have been discussed at length.
3 There are two substantive grounds. The first is based on Mestas. Mestas is
4 a wrist-worn wearable device that has curved batteries in it. The second
5 ground is Yuen, which is also a wearable device. Yuen describes that as a
6 wrist-worn device, but it also describes smaller form factors like an earring,
7 a toe band. And secondary reference in each combination is Schröder.
8 Schröder is brought in for the teaching to do all of this in a finger-sized
9 package.

10 I have on Slide 14, the institute of grounds and a brief summary of
11 the prior art. I think I can skip over this, unless Your Honors have specific
12 questions about the references.

13 Regarding motivations to combine these references, all of these
14 references describe small wearable devices that use biometric sensors and
15 different packaging. And all of these references are directed to the same
16 subject matter and generally consistent with what the experts have
17 explained, a general trend in the industry to miniaturize components that has
18 existed since the early 2000s and continues today. Electronic components
19 are generally getting smaller and packaged into smaller and smaller sizes.

20 All right. So moving on to the grounds, we have the Mestas-based
21 grounds, which is -- I'm going to start with. And I think it's important to
22 note a couple responses to Patent Owner's arguments regarding Mestas and
23 Schröder. Patent Owner has argued teaching away, that Mestas and
24 Schröder teach away from each other and teach away from the challenged
25 claims. And that just is not, I think, a fair characterization of the references.

1 Patent Owner points to a particular embodiment in Schröder,
2 which -- the embodiment of Figure 3, which I think has been called at
3 various times the Super Bowl ring type embodiment where there are
4 electronic components on the top of a ring. And as we have explained,
5 Mestas and Schröder teaches a number of other embodiments in Figures 4,
6 5, 6, 7, 8, 9.

7 And those are the ones that we point to for the combination with
8 Schröder. And all of those have this kind of uninterrupted round design.
9 And so the argument that Patent Owner makes is not commensurate with the
10 argument that we're presenting, because we're relying on different
11 embodiments in Schröder.

12 The other argument that they make about Mestas is Mestas
13 describes a wrist-worn device. It describes different ways to make the
14 device smaller. And one of the problems that Mestas describes solving is
15 that you want to have a device that is tightly fit to a user's skin. And so
16 Mestas teaches that you can have ribs or bumps or other frictional fittings on
17 the interior surface to prevent slippage. And the combination that we
18 advance is that as the device gets smaller, put into a Schröder- type
19 packaging, you would still want to prevent slippage.

20 And Patent Owner argues that having bumps and ribs in a ring
21 would be something that would be uncomfortable and unworkable. And in
22 fact, I don't think that that is a fair characterization. When you look at
23 Oura's own ring device, you can see internal bumps and ribs. And I asked
24 Dr. Mercier, do those internal bumps and ribs on a finger ring make that
25 device unusable. And he said, no, of course not, there are a million of

1 customers who've used ring devices that have these internal ribs. And so the
2 teaching away argument, I just think, doesn't hold water.

3 Now, we've talked a lot about the curved battery and Mestas's
4 curved battery. And it's important to note here that there were some issues
5 that Patent Owner argued with the evidence of record, the evidence of record
6 in the prior proceedings. The evidence of record here is different, and there
7 is substantial evidence in the record regarding the curved battery. So let's
8 just start with what Mestas teaches.

9 Mestas teaches to use a curved battery with a thickness that
10 generally corresponds to the depth of a recess and a wearable device. And
11 you can see that as item 142 in Mestas's Figure 6, and the battery curves in
12 the interior space of the wearable device.

13 JUDGE HORNER: Can we stop right there and talk a little bit
14 about how the battery is disposed within the interior space? And
15 specifically, I'm having trouble understanding what the interior space, how
16 you've defined it in Mestas. And maybe even looking at Slide 25 would
17 help because I think you've marked (CROSSTALK) there.

18 MR. HABER: Right. Okay. And so in Slide 25 we have an
19 annotated version of Figure 6. And what you can see is that there's an outer
20 surface, the outer surface is away from the user's body. There is an interior
21 wall, that is the surface facing the user's body. And everything between the
22 outer surface and the interior surface is the interior space. So essentially,
23 everything within Mestas is the interior space.

24 And so you can see the batteries of '124, they are between the
25 interior wall, the user's skin, and the outer surface. And so they are all

1 contained within the interior space of Mestas. There are no protrusions.
2 There's no bumps. This is 100 percent contained within the interior space of
3 Mestas.

4 JUDGE HORNER: So the interior wall is what you've marked
5 there in that sort of purple color, correct?

6 MR. HABER: Yes.

7 JUDGE HORNER: That defines the inner most surface of the
8 interior space.

9 MR. HABER: Correct. The interior wall defines the surface that
10 is against the user's skin.

11 JUDGE HORNER: Okay.

12 MR. HABER: And it goes all around the inside of Mestas's
13 device. And the outer surface obviously goes all around the outside of
14 Mestas's device. And all of the electronic components, the batteries,
15 everything, is contained within that interior surface defined between these
16 two spaces.

17 JUDGE HORNER: So you would include then -- that interior wall
18 would include the -- they call them caps 70 and 74 that cover the batteries?

19 MR. HABER: Yes. The interior wall would include all of the wall
20 that defines the -- basically the connection between the user skin and the
21 interior surface.

22 JUDGE HORNER: Okay. Thank you.

23 JUDGE VALEK: Before you move on, is there a place in the
24 petition where you identify the caps as part of the interior wall?

25 MR. HABER: I have to look back at the petition.

1 JUDGE VALEK: If it helps, you can do it when you stand up for
2 reply.

3 MR. HABER: Yeah, I'll find that for you.

4 JUDGE VALEK: Thank you.

5 MR. HABER: And one of the things that I know that we did in the
6 petition -- I'll find the citation for you -- is we identified portions of this wall
7 as kind of defining the boundary. And I think the intent was certainly that
8 all of that boundary between the user skin and the device is the interior wall.
9 But I'll find the citation for you.

10 And I did want to just mention the curved battery again because I
11 think this is important. And there is a piece of evidence that's referred
12 variously as GMBPow. It's Exhibit, I believe, 1021. On the slide it says
13 2021, but it's 1021. And what you can see in that exhibit are flexible flat
14 batteries, several of them are roughly the size of a finger. You can see in the
15 upper right-hand corner a tiny lithium polymer ion battery that is roughly the
16 size of a finger. And so it has been argued by Patent Owner that these sorts
17 of batteries were outside of the level of skilled in the art.

18 It has been argued that Dr. Anthony somehow admitted that these
19 patents -- or these sorts of batteries were outside of the level of skilled in the
20 art. And that's just not accurate. It is not true. Dr. Anthony explained that
21 these patents were in fact available. And the other thing I would note is on
22 Slide 23, Citation 2, Exhibit 1061, which is a patent that was issued in the
23 '70s that specifically has curved batteries and a ring form factor. What the
24 patent says is that the batteries were manufactured especially to be elongated
25 along a curve.

1 And so the argument of that there is not in the record evidence that
2 those of skill in the art would have known about curved batteries, that is not
3 true. And I think it is consistent with the '124 Patent. '124 Patent presumes
4 these batteries exist. And in fact, they did. And Dr. Anthony has explained
5 these LiPo batteries had high-energy density, they provided sufficient power.
6 All of the things that would be required to power the combined Mestas-
7 Schröder combination.

8 JUDGE HORNER: I saw a list of exhibits that included Exhibit
9 1061, but I couldn't find any argument in the Petitioner reply that makes the
10 argument here that you're making today. So if you can point us to where
11 you've relied on that exhibit in the briefing, that would be helpful. Go
12 ahead.

13 JUDGE VALEK: I have a question along the same lines. You
14 said that Dr. Anthony had testified somewhere that the batteries, like you see
15 in Exhibit 1021, that those would provide sufficient energy to power the
16 combination that we have in the petition, which as I understand it is
17 Mestas's bracelet that is shrunk down to the size of a ring. Is that in his
18 declarations?

19 MR. HABER: So what's on Slide 24 is his reply declaration,
20 paragraph 9. And that cites to his opening declaration, paragraphs 94 and
21 96. And the quoted language there, I believe, is from those paragraphs of his
22 open declaration.

23 JUDGE HORNER: Did you cite to paragraphs 94 and 96 in the
24 petition?

25 MR. HABER: That I would have to double check.

1 JUDGE HORNER: Okay.

2 MR. HABER: And before we move on from this point, just kind
3 of the fundamental takeaway is that in prior proceedings it has been argued
4 that Dr. Anthony admitted things that aren't consistent with what his opinion
5 is. And his opinion, I think, is accurately reflected on these slides.

6 We touched on the external housing. As we explained, the interior
7 space is - the interior space between the outer surface and the interior
8 surface, you can see that in Mestas. You can see that in Schröder's Figure 8.
9 Again, in Schröder, there is an inlay that houses the components in an
10 interior space between the outer surface and the interior surface. And both
11 of these references, in fact, have that teaching that houses all of the
12 components in this uninterrupted circular design.

13 The other element I wanted to touch on is the element that's 1.i
14 related to potting material. And I think it's important to just kind of take a
15 step back and look at what the parties have said. I don't think there's any
16 dispute that potting material was known and was in fact taught by both
17 Mestas and Schröder. In fact, this is Patent Owner's sur-reply where they
18 quote Mestas as providing deposition of potting material. Potting material is
19 used to kind of retain and house electronic components in Mestas.

20 In Schröder, Schröder has all of those components on an inlay.
21 That inlay is round, is wrapped around a ring blank, and that is made from
22 epoxy or resin, which is again an example of a well-known potting material.
23 Patent Owner seems to take issue with the order in which the potting
24 material is laid down in Mestas. But fundamentally, there -- these claims
25 don't require a particular manufacturing order. And when you look at the

1 combination, what both Mestas and Schröder teach is that all of these
2 components should be housed securely inside the interior space of the
3 devices. And they use potting material to do that.

4 JUDGE VALEK: The claims do require that the potting material
5 encapsulates, that's the word they use, the various electronic components,
6 including that.

7 MR. HABER: Yes, that's correct. The potting material has to
8 encapsulate all of the components. And if you look, for example, at Figure 8
9 on Slide 25, we can see the inlay kind of sealed off. There's a kind of a C-
10 shaped external housing on top of it. There is the internal wall 16 that kind
11 of seals off and encapsulates all of those components. And what Schröder
12 teaches is that kind of interior space can be resin or polymer injection
13 molded. And in the embodiments that we're talking about, the combination
14 that we're talking about, all of the electronic components are encapsulated
15 and sealed off by something that would be potting material.

16 JUDGE VALEK: Where in Mestas is that taught?

17 MR. HABER: What Mestas teaches is that you use potting
18 material to retain various internal members. There's a spine member. What
19 Mestas also teaches is that the interior wall has to be partially transparent at
20 least so that those electronic sensors can see through. The combined
21 teachings is that all of these materials should be constrained. And that's
22 what Mestas teaches. And they can be constrained by a transparent material,
23 which is also what Mestas teaches, and a resin which is what Schröder
24 teaches. And so it's the combination put together that all of these things are
25 internally packaged and stay constrained by potting material.

1 And again, I wanted to just briefly touch on the printed circuit
2 board. I think we've had lots of arguments about whether or not Schröder
3 discloses a printed circuit board. Here I think it's simpler, I don't think that
4 there can really be any dispute that Mestas teaches a printed circuit board
5 that is flexible. What Mestas teaches is that there is a printed circuit board
6 that generally follows the contours of spine member 22. And spine member
7 22 is within that interior space and follows the contours of the shape of the
8 device.

9 And so, again, putting the Mestas and Schröder together, you will
10 have a printed circuit board that is appropriately sized to follow the
11 curvature of the ring form factor. All right. So with that, I'll hand it over to
12 Brooke.

13 MS. WILNER: Good afternoon, Your Honors. Brooke Wilner,
14 also for Petitioner Samsung. And I appreciate the opportunity to get to
15 speak with you today. As Mr. Haber mentioned, I'll be discussing the Yuen-
16 based grounds and the party's disputes about secondary considerations.

17 So starting with the Yuen-based grounds -- and we'll work our way
18 through, similarly to Mr. Haber, with 1a, an external housing. So I want to
19 take a moment to think about what the claim language requires here. What
20 the claim language requires is that there is an interior space that is defined
21 by an interior surface and sidewalls. And what the Patent Owner argues is
22 that in some disclosure in Yuen there is an attachment band. And when that
23 attachment band is attached to either side of the device, it creates what the
24 Patent Owner refers to as two additional surfaces.

25 But we think that this argument is incorrect for two reasons. The

1 first is that the claim language does not preclude there being additional
2 surfaces. Again, all the claim requires is that there is an interior space that is
3 defined by an interior surface inside walls. So the presence of these
4 additional surfaces does not mean that Yuen would not disclose that
5 limitation to those of skill in the art.

6 But the second reason, Your Honors, is that this is not an
7 anticipation argument where we would be looking at Yuen alone. This is an
8 obviousness combination. And the combination of Yuen and Schröder and
9 Mestas, as laid out in the petition, would result in a seamless ring, like the
10 type described in Schröder, that would not even have that attachment band.
11 So in our view, there's really no dispute here in view of the claimed
12 language and in view of the proposed combination, that those of skill in the
13 art would be taught the recited external housing and the recited interior
14 space.

15 Moving to claim Limitation 1b, this is quite familiar ground to this
16 panel. And I won't rehash everything that Mr. Haber said earlier. I will just
17 reiterate that there is substantial evidence in the record here that shows that
18 curved batteries appropriately sized to fit within a ring were known to those
19 of skill in the art.

20 Moving to Limitation 1c, this is the printed circuit board limitation,
21 specifically a printed circuit board that is configured to conform to the
22 interior surface of the ring. So effectively, a flexible PCB that can curve to
23 fit in that interior surface. The Patent Owner's arguments that are unique to
24 Yuen have to do with what Yuen discloses about the location of the flexible
25 PCB, in that certain portions pointed to by Dr. Anthony are allegedly flat

1 PCBs instead of flexible ones.

2 I think it's important to zoom out a little bit here and just look at
3 Yuen's disclosures. So on the right side of this slide, Slide 32, there is an
4 excerpt from Yuen, column 12. And I'm going to start by looking at that
5 second highlight, lower down. And what Yuen discloses there is that there
6 could be a flexible or pliable substrate. For example, a flexible PCB that
7 could connect to a second substrate, for example, PCB within the device,
8 having other components disposed thereon. So and in that portion of Yuen,
9 it is explicitly disclosing a flexible printed circuit board.

10 And then if we look at the first excerpt that's farther up in column
11 12, Yuen discloses that it is beneficial to have the flexible substrate
12 conforming to the shape of the user's body. It says, for example, wrist, arm,
13 ankle, and/or leg. And again, what we're looking at here is the combination
14 of Yuen with Schröder. And in our view, the combination of these
15 disclosures of the flexible printed circuit board of the disclosure that it is
16 beneficial to conform to the body of Schröder's ring form factor, that those
17 of skill in the art would understand that to disclose the recited flexible
18 printed circuit board.

19 Moving to the next claim limitation, 1d, this is the sensor module.
20 This is one of the claimed plurality of components that is retained by the
21 interior space. I want to emphasize the claim language says that the interior
22 space retains these components. And what the Patent Owner argues here is
23 that Yuen sensor module assembly is not wholly within that interior space.
24 But again, similar to its argument for Limitation 1a, that's not actually what's
25 claimed. What's claimed is just that the interior space retains the

1 components, including the sensor module.

2 So you can see here on the right side of Slide 33 some testimony
3 from Patent Owner's expert. And here he was discussing a product that the
4 Patent Owner asserts practice these claims. And he confirmed
5 unambiguously that these other components, for example, the sensor
6 module, can extend beyond the interior space as defined in the first element
7 of Claim 1. And so again, we think that there is really no dispute here
8 consistent with the claimed language that requires only that the interior
9 space retain that component, that the combination proposed by Samsung
10 would render obvious this claim limitation.

11 JUDGE HORNER: Just looking at the annotated Figure 4 and the
12 light blue area you've marked as the interior space and then looking at
13 Figure 3, you've got this sensor protrusion coming out of the bottom. And it
14 appears to me -- and maybe I'm looking at this wrong, but that the sensor
15 protrusion houses the sensors and that that protrusion is outside of what
16 you've marked as the interior space. So while the components may extend
17 beyond the interior space, here it looks like they're not within the interior
18 space at all. Can you comment on that?

19 MS. WILNER: Your Honor, my understanding is that in Yuen it
20 explains that the sensor protrusion does protrude out. But the sensor
21 module, all of the sensors, are not all in that -- basically, the sensor
22 protrusion is at least partially within that interior space, perhaps you'd call it
23 the base of the protrusion or the top, depending on your perspective, exists
24 partially within the interior space of Yuen. And I can find you a citation to
25 that extent on rebuttal. But I unfortunately do not have it in front of me right

1 now.

2 JUDGE HORNER: That will be great.

3 MS. WILNER: Yes. I can do that. Thank you, Your Honor.

4 JUDGE VALEK: Is there a reason why you didn't color the whole
5 thing blue and mark this protrusion in blue as well? I'm curious about why
6 you're mapping it this way.

7 MS. WILNER: I'm not sure, Your Honor. I think I can discuss
8 that more in detail on rebuttal. Apologies.

9 And the final claim limitation I'll discuss today is the potting
10 material, which is Limitation 1i. So this is the claimed transparent
11 -- substantially transparent potting material that forms part of that interior
12 wall. And so I want to take a close look here at what Yuen discloses. This
13 is the familiar Figure 4 from the previous slide. And the item that Samsung
14 has annotated in yellow in both Figures 4 and 7 is what Yuen calls an
15 optically transparent layer. And then you can also see the item annotated in
16 red in Figure 4 is that interior surface.

17 And so it's clear just from this depiction that the optically
18 transparent layer, which forms part of that interior wall, and the interior
19 surface are adjacent but entirely distinct structures. The Patent Owner
20 argues that Samsung has somehow mapped these both to the same structure.
21 And I think it's clear from these images and from the petition mapping that
22 that's just not the case.

23 JUDGE HORNER: The claim requires the potting material to be
24 disposed in the interior space. So I guess this is kind of the same question as
25 we have with the other -- with the sensors. The yellow looks like it's outside

1 what you've mapped to the interior space, at least for Figure 4. And it looks
2 to me like Figure 4 and Figure 7 are different embodiments.

3 MS. WILNER: So I can answer your question by saying in the
4 proposed combination, which is of Yuen, Schröder, and Mestas together, the
5 potting material would actually fill in any of that -- or could fill in any of
6 that space in the interior space. So as Mr. Haber mentioned earlier, both
7 Schröder and Mestas disclosed the use of fillers or epoxies or inlays to fill
8 in, for example, the gaps in the device. You would do this for protecting the
9 components or for insulation purposes. And these were things that were
10 known in the art.

11 And our combination of the three references is that those of skill in
12 the art would understand this to be a sort of routine design choice, that you
13 would fill in the interior space using some of the potting materials that were
14 available in the art. And they would be transparent so as to allow the
15 sensors to continue to operate, as disclosed, for example, in Mestas and also
16 in Yuen itself. At column 10, line 7 through 21, it discusses, for example,
17 using light sources and that they would have to go -- be able to communicate
18 with one another for the operation of the device.

19 JUDGE HORNER: So do you agree that Figures 4 and 7 are
20 different embodiments? And how are you proposing -- I'm not really clear
21 how you're mapping the earlier elements to the Figure 7 embodiment, or are
22 you combining the embodiments or --

23 MS. WILNER: I would not agree that these are different
24 embodiments, Your Honor. I think Figure 7 is sort of a cutaway of that
25 bottom section of Yuen. So it's sort of zoomed in a side cutaway of Yuen.

1 And so you could almost take Figure 7 and paste it onto the bottom of that
2 Figure 4 portion, such that the yellow portions would align. So in reality,
3 what this would look like is the potting material would form both that
4 bottom section and also would fill in some of that interior space as well. My
5 understanding of these is that these are not separate embodiments but just
6 different views of the same embodiment.

7 JUDGE HORNER: It looks to me -- and so correct me if I'm
8 wrong, in column 2 of Yuen where it discusses Figure 7 around line 52, it
9 appears to me to be discussing a different embodiment. It says that Figure 7
10 illustrates another cross-sectional view of a PPG sensor. Wherein in this
11 embodiment, the PPG sensor does not include a protrusion. It seems to me
12 like it's a different embodiment than Figure 4, which has the protrusion.

13 MS. WILNER: I think to the extent there is a difference in the
14 embodiments, it is a distinction without a difference in terms of what our
15 obviousness combination is. So my understanding is that all of Yuen
16 together, when looking at these disclosures together, both Figure 4 and
17 Figure 7, what it is disclosing is the use of potting material, that there is this
18 interior space that, for example, could be filled in with potting material, as
19 we learned in Schröder and Mestas.

20 And when you take all of these disclosures together, one of skill in
21 the art would understand that the recited potting material, so the optically
22 transparent layer disclosed in Yuen, for example, would be rendered
23 obvious. So I think it's sort of improper to look at just Yuen in isolation here
24 and try to say that because Yuen doesn't explicitly disclose certain of the
25 claim limitations that that would somehow undermine the obviousness

1 combination. What we're looking at is Yuen plus Schröder plus Mestas, and
2 what all of that together would reasonably teach those of skill in the art.

3 JUDGE VALEK: Counsel, the problem I have is when I look at
4 your petition specifically for this limitation in Ground 3, the only thing I see
5 it referencing is Yuen. And maybe you could advance an argument like that,
6 it just doesn't seem like you did set that argument out in the actual petition.
7 Specifically, I'm looking at pages 71, 72. It's a little bit different for Ground
8 1. But for Ground 3, at least the Yuen, Schröder, and Mestas ground, it
9 seems like you were only providing Yuen for this particular limitation. Am
10 I missing something?

11 MS. WILNER: I don't think you're missing something in terms of
12 Ground 3 in the petition. But I think if we look at the ground as the whole,
13 what we're pointing to there is the combination of Yuen plus Schröder plus
14 Mestas. For this individual limitation, even if we were to only look at Yuen,
15 it's about what the combined disclosures of Yuen reasonably teach to those
16 of skill in the art.

17 And here, this limitation, this potting material limitation is taught
18 reasonably to those of skill in the art even if we only look at Yuen. It's
19 simply that if we were to combine all three references together it's sort of an
20 independent basis of which to find this limitation obvious.

21 JUDGE VALEK: Where does Yuen teach that its potting material
22 encapsulates that?

23 MS. WILNER: Yuen teaches this optically transparent layer.
24 Hold on, let me find the citation. It teaches an optically transparent layer
25 that is adjacent to that interior surface. And so, in our view, it is not an

1 anticipation argument where Yuen explicitly discloses that the potting
2 material encapsulates the battery. But instead, it would be obvious to those
3 of skill in the art, based on Yuen's disclosure of potting material, that such
4 material could be used to insulate and protect the various components,
5 including, for example, the battery.

6 So this is not an anticipation argument where Yuen teaches it
7 explicitly, but it's instead an obviousness argument of what would have been
8 clear to those in the art.

9 JUDGE VALEK: Where in the petition do you say that you're
10 modifying Yuen's teachings in these figures that you've highlighted, such
11 that the potting material would also encapsulate the battery?

12 MS. WILNER: I will have to find you that citation on rebuttal.
13 Apologies, Your Honor.

14 If there are no further questions on the Yuen-based grounds, I'll try
15 to cover the secondary considerations relatively quickly. These issues will
16 feel very familiar to this panel. But today we wanted to discuss that there is
17 no long-felt but unmet need, that there is no sufficient evidence of copying,
18 that the Patent Owner has not demonstrated an entitlement to a presumption
19 of nexus or actual nexus, and that there is insufficient evidence to
20 demonstrate commercial success.

21 JUDGE HORNER: Before we start down this road, do we need to
22 go on the confidential record?

23 MS. WILNER: We will not be discussing anything in the
24 confidential record in our presentation. I believe Patent Owner might.

25 JUDGE HORNER: Thank you.

1 MS. WILNER: On no long-felt but unmet need, I'll just touch on
2 this quickly, the Patent Owner makes a relatively cursory mention of this in
3 their reply at page 92. There's no meaningful argument here, I believe. But
4 this Board has found no long-felt need in previous proceedings, and there is
5 no unique evidence in this case that in our view would justify varying from
6 that result.

7 So I'll move to the next. On no copying, as this Board is aware,
8 the ITC has considered the copying issue on a more complete record, on a
9 fuller record. We only have select portions of that record and -- before us in
10 this proceeding and of course, Samsung was not a party in the ITC
11 investigation and was not privy to, for example, the third-party confidential
12 material that appears to have been in the record there.

13 We acknowledge that this Board has previously disagreed with the
14 ITC's finding that there was no copying based on the ITC purportedly not
15 identifying differences between the Oura Ring and the rings alleged to have
16 copied, which are the Ultrahuman and the RingConn. And we would just
17 respectfully disagree with that conclusion.

18 Here's a sample of the ITC's opinion, this is on Slide 38. And there
19 you can see the ITC has the side-by-side comparisons of the Oura Ring with
20 the rings alleged to have copied it. And based on the side-by-side visual
21 comparison as well as all the other evidence in the record there, the ITC
22 determined that there was not sufficient evidence of copying. And our view
23 is that there should not be a different result here.

24 Next, and this is another familiar issue to this Board, but our
25 position is that the Oura's evidence is not due a presumption of nexus. I

1 won't reiterate all of *Fox Factory* to the panel. But I will just simply
2 mention that *Fox Factory* held that a product needs to be coextensive,
3 meaning very close alignment between the identified product and the
4 relevant patent in order for there to be nexus.

5 So for example, in *Fox Factory*, the Patent Owner identified
6 certain product features that it said were significant or critical, essential to
7 the product, and those were unclaimed. And the Federal Circuit explained
8 that those unclaimed features meant that there could be no nexus. And in
9 fact, some of those features were actually claimed by a different one of
10 SRAM's patents. And that also defeated nexus.

11 So in our view, the same is true here. There are these significant
12 features like the Oura application and the Oura membership that Mr. Clark
13 has testified, for example, work in conjunction with the Oura Ring or work
14 hand-in-hand. And so in our view, these are the type of significant or
15 essential features that are unclaimed by the '124 Patent. There's no evidence,
16 for example, that a customer might buy an Oura Ring even if they did not
17 have access to the app. And so in our view, the application is that kind of
18 significant feature that contributes to the nexus inquiry.

19 And these features are actually claimed by other Oura patents. For
20 example, here's the '429 Patent that claims the calculation and display of a
21 user-readiness score on a mobile communication device. And here is
22 another Oura patent that claims, for example, the titanium-based design that
23 Mr. Clark identified as important to the ring. It also claims other materials
24 like platinum, gold, silver, and the like. So again, in our view, this is that
25 *Fox Factory* problem, where these are some significant features that are

1 claimed by different Oura patents but not the '124.

2 And beyond just that they are unclaimed features, these features
3 are also known in the art, so -- apologies, these are also known in the art. So
4 Oura does not claim, for example, to have invented titanium rings or a UI
5 showing data, something like that. These are things that were known in the
6 art. So to the extent that these features are significant to the product, they
7 would not be due a presumption of nexus. And I'll just quickly touch on
8 -- that was all on the presumption of nexus.

9 I'll quickly touch on actual nexus. The secondary considerations
10 evidence to show an actual nexus needs to be a direct result of the claims.
11 So Federal Circuit has explained when the secondary consideration, for
12 example, commercial success, results from something other than is claimed,
13 then there is no nexus to the merits of the claimed invention.

14 So here, Oura would need to demonstrate that the reason for its
15 purported commercial success is what is claimed in the '124 Patent. So for
16 example, because there is a curved battery or because there is an interior
17 space defined by an interior surface and sidewalls. And in our view, the
18 evidence of record just doesn't demonstrate that.

19 And finally, I'll just touch briefly on an issue that the Board has
20 raised in previous of its decisions, which is that Oura has non-differentiated
21 sales data. So there are multiple different Generation 3 Oura products, some
22 of which Oura asserts practice the patents, other which Oura does not so
23 much assert practice the patents. And that non-differentiated sales data is
24 just sort of generally less helpful in determining commercial success.

25 And in our view, it does not amount to substantial evidence to

1 show that it is the actual claimed features of the '124 that are generating that
2 purported commercial success. And if there are no further questions from
3 the Board, I'll close and hand back to Mr. Haber.

4 MR. HABER: There was just one point that I wanted to go back
5 to. It was a question that you asked, Judge Valek. I wanted to just -- let me
6 see if I could do this and bring up the petition. You were asking about Yuen
7 and the explanation for Yuen and the potting material that fills the internal
8 space. I'll just direct you to a portion of the petition.

9 And so the Yuen ground, it cross-references a number of the
10 disclosures of Mestas and Schröder. And so it doesn't in all cases
11 specifically mention Mestas and Schröder, other than we're talking about the
12 combination. Obviously, we talked about it in the motivation to combine
13 section. But then also, on page 72 -- let me get there -- your question was
14 specifically about the potting material in Yuen. And we explained here that
15 a POSITA would have understood that the optically transparent layer borne
16 by injection molding has made a potting material.

17 A POSITA would have known that it encapsulates the components
18 in the device's interior space as claimed. And so that was the argument in
19 the reply, Obviously, one challenged by Patent Owner. But this was the
20 argument that was made. And then a POSITA would have known that
21 similar materials can be used for molding and potting, those similar
22 materials are the materials in Mestas and Schröder that are also part of the
23 ground. We didn't specifically refer to them, but this ground is incorporating
24 what we argued about Mestas and Schröder.

25 JUDGE VALEK: But it's just citing Schröder. Exhibit 1006 is

1 -- oh sorry, Exhibit 1006 is Yuen, right?

2 MR. HABER: Exhibit 1006, I believe, is Yuen. That's true. And
3 so this particular citations in this section were generally focused on citing to
4 Yuen, which was the differences between Grounds 1 and 2. But there's
5 reference back to the teachings of Mestas and Schröder in other places. And
6 here, I think when we talk about those known similar materials, I think
7 reading this ground you would understand that we're talking about the other
8 materials that are disclosed as part of this ground, not just in Schröder.

9 All right. So I think with that, I will reserve the remainder of my
10 time for rebuttal.

11 JUDGE HORNER: Mr. Pluta, would you like to reserve time for
12 rebuttal?

13 MR. PLUTA: Yes, five minutes, Your Honor.

14 JUDGE HORNER: Five minutes?

15 MR. PLUTA: Yeah.

16 JUDGE HORNER: Just one minute, and I'll get this set up. All
17 right. Proceed.

18 MR. PLUTA: Good afternoon, may it please the Board. Rob
19 Pluta, on behalf of Oura Ring. I'm here with my colleague Nick Ciulla, who
20 looks forward to arguing before the Board, as do I today. Because we have
21 two presenters, I just wanted to preview our intentions with respect to what
22 we're doing. I'm going to cover the first ground, the Mestas ground. Mr.
23 Ciulla will come up and discuss the Yuen ground. And then I'll come back
24 up and talk about secondary considerations.

25 So the Board is generally familiar with the prior art and the

1 specification of the patent at issue here. Indeed the claims are quite similar
2 to the prior proceedings when we were here the last two times, as are
3 Petitioner's grounds. So I'll skip over some of the preliminaries and get right
4 to Ground 1, moving to Slide 12, the Mestas and Schröder grounds.

5 For Ground 1, on Slide 13, Petitioner relies mostly on Mestas,
6 utilizing Schröder mainly for the finger-ring form factor. My colleague
7 previewed Mestas describes a wrist-worn wearable athletic device focused
8 on athletic monitoring. Whereas Schröder, as we're all familiar, describes an
9 external secure unit for the purpose of authenticating a user, not necessarily
10 health monitoring.

11 And a person of ordinary skill in the art would not combine Mestas
12 for several reasons, as shown in Slide 16. The devices have very different
13 functions. The devices have different components and different power
14 requirements. Mestas only contemplates a device worn on the wrist for
15 larger body parts, not a finger-worn device. And Mestas's components are
16 much too large, particularly the battery is much too large to fit in a form
17 -- ring form factor. And the Board has previously found that there were no
18 motivations to combine Mestas and Schröder.

19 With respect to the proposed combination of Mestas and Schröder,
20 going to Slide 17, the claims at issue in the present proceeding are very
21 similar to those in PGR2024-00030 and IPR2024-01077. Each claim
22 describes a finger-worn device, each claim has a housing, each claim has a
23 battery and a PCB and various sensors. And several times before, on Slide
24 18, as the Board's aware -- in fact, four times, the Board has rejected
25 Petitioner's proposed combination of Mestas and Schröder.

1 Why? Well, as Dr. Mercier testifies at paragraph 145 of Exhibit
2 2018, integrating Mestas's health monitoring system, including its large,
3 curved battery designed for a wristband, into Schröder's slim finger ring is a
4 radical redesign that negates Schröder's core attributes. But even if we
5 assume a POSITA was motivated to look to Mestas to combine with
6 Schröder, a POSITA would lack a reasonable expectation of success due to
7 the significant technical challenges.

8 Dr. Anthony, Slide 19, conceded that miniaturization of Mestas in
9 a Mestas-like battery would require 5 to 10 times scaling. And he never
10 investigated, until the reply in this proceeding, whether such batteries were
11 available in 2013 that were appropriate to fit into Schröder as proposed.
12 And we would disagree that they would fit into Schröder as proposed.

13 JUDGE HORNER: Well, let's talk about that, the GM -- I can't
14 remember the name.

15 MR. PLUTA: GMBPow.

16 JUDGE HORNER: Thank you. Does that show a battery? You're
17 saying you dispute that that exhibit -- I mean, that's new evidence that we
18 didn't have in the prior cases.

19 MR. PLUTA: Correct. Yeah. And I just want to touch on that.
20 We're going to go to this area. There was a question when my colleague was
21 up here regarding whether some of that battery art was in the petition. It was
22 not in the petition. The petition's entire discussion of Element 1B and 14B,
23 which is the battery element of the claims, is on the petition at pages 25
24 through 26. They cite to Dr. Anthony's declaration.

25 I think a specific question, perhaps by Judge Valek, was whether

1 Exhibit 1061 was cited there. And it was not. That's new as of the reply.
2 But regardless, even if we take the new evidence that Petitioners put
3 forward, they're really misrepresenting the state of the battery art within the
4 wearable ring devices. I'd actually like to start, if I may --

5 JUDGE VALEK: Before you go into that --

6 MR. PLUTA: Sure.

7 JUDGE VALEK: -- I just want to clarify and make sure I
8 understand your position. So Counsel referred me to paragraph 94 -- I
9 believe, paragraph 96 of Exhibit 1002. That's Dr. Anthony's original
10 declaration.

11 MR. PLUTA: Correct.

12 JUDGE VALEK: So that's not new evidence. That was evidence
13 that was included with the petition. But your position is that it wasn't
14 actually cited in the petition?

15 MR. PLUTA: Yeah. There was no argument -- the ground here is
16 Mestas and Schröder. They didn't try to bring in a combination with the
17 -- for example, GMBPow battery art. They did cite Dr. Anthony's
18 declaration. I don't believe he cited, for example, Exhibit 1061 there. I do
19 believe he cited the GMBPow evidence. So my argument is not that they
20 didn't have any of that evidence, but there is a substantial amount of new
21 evidence that was only introduced on reply.

22 And we're happy to take on the evidence on the merits. I just want
23 to point out that these don't form the basis of the grounds, and it's really just
24 as an afterthought that Petitioner puts this in, in the reply. And does the
25 Board have Petitioner's demonstratives if I refer to them?

1 JUDGE VALEK: Yes.

2 MR. PLUTA: So I'd like to start with a couple of Petitioner's
3 demonstratives that illustrate how they might be misrepresenting the state of
4 the battery art here. And that's first on Slide 17, which is a slide that cherry
5 picks Dr. Mercier's testimony and cutting off the testimony that supports
6 Patent Owners' point.

7 And I'd refer to the Board at Exhibit 1081, which is Dr. Mercier's
8 deposition at page 147, lines 23 through 148, line 11. So the question, as
9 shown on Slide 17 of Petitioner's demonstratives is, "And would you agree
10 that there was a general drive around 2013 towards making batteries
11 smaller?" He said yes. But he went on, "And to add a little bit to that, the
12 semiconductor industry has benefited tremendously from Moore's Law."

13 Skipping ahead, Dr. Mercier testifies, "But unfortunately, there's
14 no kind of equivalent of Moore's Law for battery design that I'm aware of.
15 And my understanding of batteries is that they scale extremely slowly over
16 time." And the next question was, "Would you agree there was some kind
17 of a general pressure in the industry around 2013 to attempt to miniaturize
18 batteries?" Dr. Mercier said, "I do."

19 And one other piece of information I can help with this discussion
20 here is in Dr. Anthony's deposition, he discussed battery miniaturization.
21 And he discussed that it could take years in reference of taking something
22 like a battery from Mestas and shrinking it down.

23 On Slide 23 of Petitioner's demonstratives, they show the
24 GMBPow evidence, which I believe is Exhibit 1021. And Exhibit 1061,
25 which is the Sims patent. Oh, there's a couple issues with this. First, none

1 of these references form the basis of the grounds in their petition. Looking
2 at their evidence on their Slide 23, Exhibit 21 which is on the left, the thin
3 LiPo battery and even the tiny LiPo battery are significantly bigger than a
4 battery that would go in a ring. They've made no contentions otherwise. If
5 you look at the thin LiPo, it covers half the person's finger.

6 Second, the argument regarding Sims patent, Exhibit 1061, also
7 fails. Sims is a patent from 1977, nearly 50 years ago. Sims basically takes
8 a double A sized battery and attempts to put it in the ring. I happen to have a
9 battery -- double A battery in my travel pack here. It's a huge battery, as we
10 all know. Given Dr. Mercier's testimony regarding the state of the battery
11 art and non-application of Moore's Law to battery art, the Sims battery is
12 clearly not applicable to a smart ring.

13 Petitioner tries to gloss over this and says that miniaturization was
14 standard. Well, our position is that's pretty vague. Battery miniaturization
15 research was ongoing, but the pace was very slow. Battery density did not
16 begin rapidly improving until some years. Dr. Anthony himself admitted
17 miniaturization takes years.

18 JUDGE HORNER: Did Dr. Mercier comment on this Exhibit
19 1021, or was he asked about it in his deposition?

20 MR. PLUTA: Yes, Your Honor. And he said that the power
21 requirements would be very different with respect to Exhibit 1021, the
22 GMBPow.

23 JUDGE VALEK: Can you give us the citation, if you have it?

24 MR. PLUTA: Yes. I believe, as declaration, it's paragraphs 104
25 through 107. I could be wrong about that. I will --

1 MR. CIULLA: Ninety-two.

2 MR. PLUTA: Ninety-two. Thank you. And 92 at least. Thank
3 you, Mr. Ciulla.

4 And another point on the GMBPow issue is that the ITC also found
5 no reasonable expectation of success to use a GMBPow in finger rings, that's
6 Exhibit 2122, at 93 through 94. And in fact, the inventors of the '124 Patent
7 visited GMB's facility and concluded that the batteries were unsuitable. The
8 dimensions alone without packaging made the device too wide and thick for
9 a ring. And that's at Exhibit 2024, at page 190, lines 11 through 197, line
10 11.

11 And the GMBPow's battery discharge rate, which was about 5
12 milliamps, was wholly insufficient for our ring's needs. So a person of
13 ordinary skill in the art would not combine Mestas and Schröder even with
14 this new evidence that is put forward by Petitioner. But even assuming an
15 argument that they were combined, Petitioner still hasn't met their burden.

16 So unless the Board has any questions -- further questions about
17 the general battery art discussion, I'd like to move on to Element 1b. So
18 beyond pointing to the Mestas battery, the petition's proposal for putting it in
19 a ring form factor consists of simply, quote, "a POSITA would have found
20 implementing the rechargeable batteries of Mestas in the Schröder finger-
21 ring form factor desirable and feasible given the advancements in flexible
22 battery miniaturization."

23 Again, on Slide 30, the Board's rejected already Petitioners'
24 attempt to incorporate Mestas's battery into the Schröder's rings several
25 times before. No new evidence, as presented in this petition, including all

1 the battery art that Dr. Anthony discusses, which isn't in the petition. Again,
2 it changes Mestas's incompatibility with Schröder. So Petitioner fails to
3 show this limitation is met for that reason alone.

4 And beyond putting some 50-year-old patents with curved double
5 A batteries in front of the Board, Petitioner's theories are no different here
6 than those that were rejected in prior proceedings. Dr. Anthony testified that
7 you'd have to make a battery in Mestas 5 to 10 times smaller to work in
8 Schröder. So it's entirely conclusory to suggest that a person of ordinary
9 skill in the art would place Mestas's 5 to 10 times too large battery and
10 alleged -- in an alleged cavity of Schröder that's outfitted to carry no more
11 than a wire, as we've discussed at length in prior proceedings.

12 And Dr. Mercier still maintains that opinion at Exhibit 2018, at
13 paragraph 181. And Dr. Mercier testifies, which we show somewhat on
14 Slide 33, that Mestas would add significant power requirements, and thus
15 impact the size of the battery, and in turn impact the placement of the battery
16 on the ring. Even in the Sims patent that Petitioner cites, the 50-year-old
17 patent, we see like all the other prior art, the components, the light bulb in
18 that instance, is on the top of the ring.

19 Petitioner also failed to explain why a POSITA having issues with
20 a power solution would incorporate one half of Mestas's power solution, the
21 curved batteries but reject the other half of Mestas's power solution, the
22 battery housing in the recesses on a spine member. So with that, I just
23 wanted to make one note on Element 1i and 14i, and then I'll -- unless the
24 Board has any questions, I'll sit down.

25 There was a question that you asked of Petitioners with respect to

1 the inner wall. Caps 70 and 74 were not identified in the petition as part of
2 the interior wall. And why was that? Well, because the caps 70 and 74, as
3 described by Mestas, are made of metal. So the batteries are not
4 encapsulated by potting material as required by those claims.

5 JUDGE VALEK: This may be obvious to others, but why can't
6 the potting material be metal?

7 MR. PLUTA: Potting material is typically like an epoxy. So you
8 can have liquid metal. But potting material is not metal is my
9 understanding. And that's purely my understanding, there's no evidence in
10 the record with respect to that.

11 JUDGE HORNER: I understood Mestas to describe the
12 overmolding process such that it wouldn't overmold the battery caps. Is that
13 your understanding of --

14 MR. PLUTA: Sorry, it would or would not?

15 JUDGE HORNER: It would not.

16 MR. PLUTA: Correct.

17 JUDGE HORNER: Okay. And we can certainly hear from
18 Petitioner if they've read it differently, but --

19 MR. PLUTA: Thank you.

20 MR. CIULLA: Good afternoon, Your Honors. As discussed, I'm
21 going to discuss Ground 3, which is adding Yuen into the Mestas, Schröder
22 ground. So turning to Slide 38 -- before I walk through these specific claim
23 limitations, I want to put this kind of into context because the Board has
24 already considered and rejected combinations built on these -- on this ground
25 and on these combinations.

1 In 01077, the Board rejected a Yuen and Mestas combination. In
2 01078, the Board rejected both a Mestas, Schröder and a Schröder, Mestas
3 combination. In 00030, the Board rejected a Schröder, Yuen combination.
4 And in 00039, the Board rejected a Schröder, Mestas combination. Every
5 two referenced combination that makes up this three reference combination
6 has already failed before this Board.

7 JUDGE HORNER: Have we ever rejected a Yuen, Mestas,
8 Schröder combination?

9 MR. CIULLA: Not yet, Your Honor.

10 JUDGE HORNER: Okay.

11 MR. CIULLA: And I think adding in a third reference to these
12 various two reference combinations makes the combination even more
13 nebulous, even more -- picking from various devices, various
14 subcomponents from various devices, that all have a different purpose and
15 all have different components. So it only adds to the complexity of the
16 combination.

17 And in those previous rulings, the Board made several
18 determinations that are relevant here. In the 01077 proceeding, the Board
19 found that Yuen's toe band lacks any support and it's just a cursory
20 reference. The Board also discussed Yuen's housing and how it's formed
21 like a barrel missing, and that the Petitioner did not discuss the two end caps
22 of that barrel. And the Board found that relevant in determining -- rejecting
23 the combination in that hearing.

24 JUDGE HORNER: I think the claims were different in that -- the
25 claim language was different in that case. However, I think Petitioner has

1 made a valid point that the claim language here is a little broader, in that it
2 just requires -- the claims here just require the external housing to have an
3 outer surface, an interior surface, and sidewalls that make a C-shaped cross-
4 section that define an interior space, but that doesn't have to encapsulate or
5 completely enclose. I think that language in the 01077 case was slightly
6 narrower.

7 MR. CIULLA: I agree, Your Honor, that the language is slightly
8 different here. I'll address that in a later slide, if that's all right.

9 And finally, in those earlier rulings, the Board addressed the
10 Petitioner's argument that wristband-sized components in Mestas and Yuen
11 can be shrunk down into a finger-ring sized embodiment like Schröder,
12 the fit on it is small. And the Board rejected that in all four proceedings.

13 So what is new in Ground 3 that's different in this proceeding?
14 Well, Petitioner has added a third reference to the mix, cherry picking from
15 all three pieces of art to arrive at the '124 mentioned. And I wanted to
16 briefly discuss the mapping issues in Yuen that Petitioner has. So Petitioner
17 uses two different circuit boards over two different embodiments. So
18 Figures 5 and Figure 7 are different embodiments of the sensor protrusion.
19 And Figure 4 points to a first PCB that they label the main PCB.

20 That PCB has issues because it's opposite of the interior surface it's
21 supposed to conform to. And it's flat, it doesn't conform to that C-shape.
22 And the secondary circuit board has an issue because it's entirely outside of
23 the interior space, as labeled by petition. In at least the Figure 5
24 embodiment and the Figure 7 embodiment, it's flushed with what they label
25 as the external housing. So they're labeling, at least in the Figure 7

1 embodiment, the external housing and the interior wall are the same surface.

2 And I also want to address, when discussing Slide 25 of the
3 Petitioner slides, the reason why the interior space doesn't cover the sensor
4 protrusion is because that would cause the interior space beyond the exterior
5 surface of the device. So the external housing is defined as the surface
6 above the protrusion. So if you label stuff below that as the interior space,
7 you'd have interior space outside of the external surface of the device.

8 Moving on to Slide 39, I want to briefly discuss why a POSITA
9 would never make this combination. Petitioner ignores Yuen's battery
10 entirely. Yuen doesn't discuss its battery much. But Petitioner does not
11 bring up Yuen's battery at all. Instead they reach into Mestas and pull the
12 battery out of the spine member and out of the battery, discard all that;
13 combine that, integrate that into Yuen's device, and then shrink that Yuen
14 and Mestas combined device into Schröder. And there's no discussion of
15 why a POSITA would abandon Mestas's power solution and just take
16 appropriately sized battery out of Mestas.

17 And it's the same story with the housing, the Petitioner is asking
18 you to take the barrel portion of Yuen's housing, discard the side caps and
19 extend it, ignore everything about Mestas's housing. And they ignore
20 Schröder's ring halves to somehow arrive at the claimed language of the '124
21 Patent. And that's just pure hindsight, and the Board should reject it.

22 Moving on to Claim 40, the preamble. So here the Petitioner does
23 not use -- only uses Schröder for the finger-ring sizing of the device. It
24 doesn't point to Schröder's battery, printed circuit board sensors, memory
25 processors -- or sensors. So the question becomes, what is informing a

1 POSITA that this -- Mestas and Yuen sized devices can work on a finger
2 ring? And Petitioner points to Yuen's toe band embodiment.

3 But as the Board has previously ruled, Yuen doesn't discuss its toe
4 band embodiment at all. And Petitioner's fallback argument is incorporated
5 in Ground 1, which is that a POSITA would know to shrink the components
6 to fit in Schröder's inlay. And the Board has already rejected that argument
7 in the four previous proceedings.

8 Moving to Slide 41, which is the housing limitation. The Board, I
9 think, pointed out that Petitioner relies solely on Yuen for this limitation.
10 And in responding to our POR, Petitioner tries to incorporate a combination
11 of Schröder for this limitation, which is a new argument. And Petitioner
12 never describes how or why a POSITA would elongate Yuen's housing to
13 work in a Schröder type finger ring.

14 And that's not the only inconsistency when labeling the interior
15 space in Figures 4 and 7. Figure 4 was an annotation that accompanied
16 Element 1c, and Figure 7 was an annotation that accompanied Element 1i.
17 The interior space is labeled differently in both of these embodiments. And
18 Figure 4 and Figure 7 are two different embodiments. So this is just another
19 inconsistency defining the interior space differently.

20 JUDGE VALEK: So what is your understanding of where the
21 battery is in these embodiments?

22 MR. CIULLA: So I believe Yuen is mostly silent to this. I believe
23 in a previous decision, the Board -- there was some discussion that it's
24 possible that the main PCB may hold the battery. So I think that's probably
25 the most likely. It's most likely a large component that would be on the

1 main PCB.

2 And I also want to point out that Petitioner never labels the interior
3 wall on any of these embodiments. Presumably, the interior wall would be
4 the potting material. And as previously discussed, that would mean that the
5 interior wall and the external housing is on the same -- is the same surface,
6 at least the Figure 7 embodiment by the Petitioners' annotations.

7 JUDGE VALEK: What does encapsulate mean in this context?

8 MR. CIULLA: Encapsulate means that a potting, it would -- so
9 potting is a non-conductive material that goes around electronic components
10 that secures them in place and helps give the device some rigidity. So my
11 understanding is that the potting would have to fully touch the components.
12 And here, the potting, at least in Figure 7, there's a gap shown in the
13 annotation of Figure 7.

14 And for Element 1c, they label the main PCB, which is on the
15 opposite side of this structure as holding at least some of the components,
16 including potentially the battery. And Petitioner never shows or argues that
17 the potting material would be on the second -- this other PCB. So even if it's
18 encapsulating the secondary PCB, it's not encapsulating the primary PCB
19 which has some of the components.

20 JUDGE VALEK: What slide is that?

21 MR. CIULLA: Oh, excuse me, Slide 41.

22 JUDGE VALEK: And the gaps that you refer to in their
23 annotations for Figure 7, where are those?

24 MR. CIULLA: So they show that the interior space -- in the light
25 blue, they show a gap around the components. And it's another issue which

1 we'll talk about a little bit later. But for Elements 1b through 1h, it would
2 require that the various sensors and batteries are disposed on a PCB, which
3 is disposed in the interior space. And Petitioners never discuss on which
4 circuit board these components are on.

5 So moving on to Slide 42, which is the printed circuit board
6 limitation, the main PCB is flat. It's the opposite surface of the required C-
7 shape surface it needs to be conformed to. And the other PCB, as discussed,
8 at least in the Figure 5 embodiment, is beneath the interior space. The
9 embodiment in Figure 7 is flat, which is another issue. And then there's a
10 potentially another mapping that Petitioners could be arguing for that. The
11 lower portion of Figure 5 is the interior wall, and the upper portion is the
12 external housing. And the space -- interior space is actually just essentially
13 protrusion. And that's the argument. It doesn't work because that space is in
14 C-shapes. It's outside of the interior space, and it's -- for a few various
15 reasons.

16 Moving to Slide 43, which is the sensor requirements. Again, the
17 Petitioner identifies on which circuit board the main PCB or the other PCB
18 -- the secondary PCB the components are on. And you want sensor
19 protrusion in Figure 4. It's entirely outside of the interior space, as annotated
20 by Petitioner. And if Petitioner is relying on Yuen's sensor protrusion, it
21 doesn't discuss how combination with Schröder would modify the sensor
22 protrusion in the petition.

23 JUDGE HORNER: What about Petitioner's position that the
24 sensor protrusion -- that portions of what's in the sensor protrusion reside in
25 the interior space, and that it's okay for them to extend beyond the interior

1 space?

2 MR. CIULLA: So I would agree with what Dr. Mercier said. But
3 here, as you can see from the Figure 4 annotation, the sensor protrusion is
4 completely outside of the interior space.

5 Slide 44, which is the potting, so I want to mention something that
6 came up during Counsel's discussion of Mestas on Slide 25. When they
7 were discussing how they labeled Mestas's surfaces, they said that the
8 internal wall is the side touching the user -- facing the user, and the external
9 wall housing is the side that points away from the user on the other side.
10 And here they almost label both two surfaces touching the user as the
11 interior wall, which is an unusual construction to take. They don't label the
12 surface that points away from the user the display surface.

13 JUDGE HORNER: I'm not sure I follow that argument. What are
14 you comparing here? You're looking at Slide 44?

15 MR. CIULLA: So the interior surface labeled there --

16 JUDGE HORNER: Yes.

17 MR. CIULLA: -- that's the interior surface of the external housing
18 with the claimed language.

19 JUDGE HORNER: Okay.

20 MR. CIULLA: So in Mestas, they labeled the housing away from
21 the user as external housing. Here they're labeling the surface touching the
22 user as the external housing.

23 JUDGE HORNER: Where do they label the external housing at all
24 in here? I don't see it.

25 MR. CIULLA: The interior surface in red is the interior -- the

1 claim language is the interior surface of the external housing of Element 1a.

2 JUDGE VALEK: You're interpreting the green line to be the
3 external housing?

4 MR. CIULLA: The green line is the external --

5 JUDGE VALEK: It's not labeled in the actual figure. It's just
6 green.

7 MR. CIULLA: Right. So in their petition, they label the green as
8 the external surface. So we look at plain language 1a, there's an external
9 housing that has an interior surface and an outer surface. So the green in
10 their petition is the outer surface of the external housing, and the red is the
11 interior surface.

12 JUDGE HORNER: Can you point to a figure in their petition? Is
13 it on a particular page in the petition?

14 MR. CIULLA: It's their annotated Figure 4. And I can grab the
15 page number from their petition. It's under the 1a limitation, I believe. It's
16 page 61, Your Honor, and it continues to page 62. So they run into an issue
17 where they're -- both surfaces that touch the user in red and green is the
18 external housing, and the yellow is the internal wall. It's unlabeled but it's
19 the potting material that forms the interior wall. So they have this -- both
20 these surfaces touching the user, labeled as both the external housing and the
21 interior wall, instead of choosing the display surface as a wall.

22 JUDGE HORNER: I see it. I see what you're arguing. I got it.
23 Thank you.

24 MR. CIULLA: So Element 1i has three distinct requirements for
25 the potting as we dispose in the interior space, as to form an interior wall,

1 and as to encapsulate the polarity of components. As previously discussed,
2 Petitioner defines where the components are on, which circuit board. It
3 never discusses the battery. So they don't argue that the potting encapsulates
4 the polarity of components.

5 And there's another way to interpret how they're mapping the
6 interior wall and the external housing. It could be the surface between the
7 light blue and the yellow, the space there, that's their argument now. It fails
8 because that interior -- if that's interior space, it's outside of the main space
9 of the Yuen. That space is in C-shapes. And at least the components that
10 are on the main PCB would be outside of the interior space.

11 JUDGE VALEK: What they've labeled in light blue.

12 MR. CIULLA: The interior space in light blue on Figure 4.

13 JUDGE VALEK: So the potting material would be outside of that
14 space?

15 MR. CIULLA: If we take this labeling as correct, yes. If the
16 argument is somehow that the space is between the green and the yellow,
17 then there's a whole host of other issues.

18 JUDGE VALEK: But it's adjacent to it. It touches just below.

19 MR. CIULLA: So it's below the secondary PCB. But at least
20 some of the components would be on the main PCB, which Petitioner
21 addresses. Unless the Board has any other questions for this ground, we'd
22 like to rest on the papers for the remainder of these arguments. And my
23 colleague is next.

24 JUDGE HORNER: Oh, right, yes. All right. Do we need to go on
25 the confidential record?

1 MR. CIULLA: Not yet.

2 MR. PLUTA: We've got some preliminaries regarding secondary
3 considerations.

4 JUDGE HORNER: So before we jump into commercial success
5 and copying, can you just clarify, is there an argument on long-felt need
6 here? I didn't see one.

7 MR. PLUTA: There is not, Your Honor.

8 JUDGE HORNER: Okay. All right. Thank you.

9 MR. PLUTA: I think there was a relic in our sur-reply that
10 shouldn't have been there.

11 JUDGE HORNER: Okay.

12 JUDGE VALEK: I have one question. Is your proof limited to
13 Claim 1?

14 MR. PLUTA: Proof with regarding to nexus, yes, we've presented
15 Claim 1 as showing coextensiveness with respect to Gen 3, both Horizon
16 and Heritage.

17 JUDGE VALEK: But you don't have nexus evidence for Claim
18 14?

19 MR. PLUTA: I believe the evidence would be equally applicable
20 with respect to Claim 14. I believe in the petition, Your Honor, we only
21 presented Claim 1.

22 JUDGE VALEK: And in your expert's testimony, just Claim 1,
23 right?

24 MR. PLUTA: I believe that's correct, Your Honor. So in addition
25 to Petitioner's failure to show that the prior art renders the challenged claims

1 obvious, secondary considerations, such as commercial success and copying,
2 support a finding of nonobviousness. With regard to the nexus issue, the
3 Oura Ring Gen 3 is a commercial embodiment of the '124 Patent and
4 coextensive with the challenged claims.

5 I'll cite Dr. Mercier at Exhibit 2018, paragraphs 295 to 317.
6 Petitioner doesn't really oppose the mapping of the Gen 3 to Claim 1. So
7 Oura Ring Gen 3, both Horizon and Heritage show that it's coextensive
8 commercial embodiment of the '124 Patent. On Petitioner's demonstrative
9 48, they cite the Board's decision in one of the prior IPRs, noting that our
10 evidence of commercial success was weakened because we didn't show both
11 the Horizon and Heritage in that proceeding, notwithstanding the Board also
12 found commercial success in that.

13 But we do, in this case, show both the Horizon and Heritage are
14 coextensive with respect to Claim 1 of the '124 Patent. So to the extent
15 they're contending we have not done that, we have done that, and they don't
16 have an answer to that. And the distinction between the Horizon and
17 Heritage is really just the shape of the exterior housing used to orient the
18 ring sensors to the palm side of the hand. Gen 3 includes an internal housing
19 component formed the potting material, both versions do.

20 And as shown in the '124 Patent, the Patent Owner response pages
21 96 through 103, the claimed inventions are not merely some subcomponents
22 of the Oura Ring Gen 3 but rather encompass the entire structural apparatus.
23 So both versions of Gen 3, the Horizon and Heritage, are commercial
24 embodiments and coextensive with the challenged claims.

25 And the ITC agreed in examining very similar claims in the same

1 evidence in the context, the '178 patent. And as the Board knows, the Board
2 previously agreed that Generation 3 Horizon was co-extensive with the
3 claims of three additional patents that were previously at issue. And the
4 claims are generally similar, so the same results should apply here.

5 Going to Slide 50, Petitioner does not dispute that the Oura Ring
6 embodies the challenged claims and admits with respect to both versions of
7 Gen 3 that there was at least some commercial success. So to overcome the
8 presumption of nexus, Petitioner must present evidence that shows the
9 proffered evidence was due to extraneous factors, other than the patented
10 invention.

11 JUDGE HORNER: Before we jump there, just to make sure I'm
12 clear, so you've provided evidence of nexus for the Gen 3 Horizon and
13 Heritage in Claim 1 of the '124. But I didn't see anything regarding Gen 4;
14 is that right?

15 MR. PLUTA: Correct, Your Honor.

16 JUDGE HORNER: Okay.

17 MR. PLUTA: So Petitioner's evidence with respect to attempting
18 to overcome the presumption of nexus is the same as they presented in all
19 the other prior IPRs, where the Board found commercial success of Gen 3.
20 So I'm not going to belabor these points. But just to remind the Board,
21 Petitioner focuses on the application and membership. But that does not
22 rebut the co-extensive nature of the Oura Ring in the claimed '124 Patent
23 technology.

24 Second, Petitioners argue that Gen 3's sleek and comfortable
25 design and materials are not claimed in the '124 Patent. This was also

1 rejected by the Board. Dr. Mercier testifies that the claimed arrangement of
2 the '124 Patent that leverages the inner and outer housing components to
3 form the inner space and cavity to allow the housing of the battery and
4 components is what contributes to that wedding band sleek and comfortable
5 look and compactness.

6 And finally, Petitioner's argument that Oura's reliance on Oura
7 Ring for objective indicia across multiple patents means that nexus cannot
8 be presumed is also flawed. It was also previously rejected by the Board.
9 All the patents that we've been talking about over these last months are
10 related. They have the same specification. They're part of the same family.
11 All those patents, the '702 Patent, the '178 Patent, the '859 Patent, the '953
12 Patent, and the '124 Patent claim essentially the same invention, namely the
13 structure of a finger-worn wearable ring device. Petitioner has not shown
14 that the inventions are different in that respect.

15 At this time, I will get into some confidential information.

16 JUDGE HORNER: Okay. So we'll go on the confidential record.
17 Mr. Favor, if you could pause the public line and let me know when that's
18 done.

19 (CONFIDENTIAL RECORD REDACTED)

20 JUDGE HORNER: Will you be addressing, Mr. Haber, the
21 confidential record information in your rebuttal, or can we go back on the
22 public --

23 MR. HABER: We can go back on the public record.

24 JUDGE HORNER: Okay. Great. Give me just one minute, and
25 we'll get -- Mr. Favor can help us get back on the -- reestablish that line.

1 Thank you.

2 MR FABER: The public line is now active.

3 JUDGE HORNER: Thank you. All right. Mr. Haber, please.

4 MR. HABER: All right. So I have a few points that I want to
5 make in rebuttal, and then Ms. Wilner will have a few points as well. She
6 may go on to the confidential record, but we'll see how it goes.

7 JUDGE HORNER: Okay.

8 MR. HABER: All right. So the first thing that I wanted to address
9 is the issue of the evidence regarding the battery. The evidence regarding
10 the battery, that is evidence for the knowledge of a POSITA. It is explaining
11 what one of skill in the art would have known with regard to curved
12 batteries, what would have been routine, what would have been obvious to a
13 POSITA. And I wanted to direct Your Honors to --

14 MR. PLUTA: I saw the timer is not going.

15 JUDGE HORNER: Oh, thank you.

16 MR. HABER: That's fine.

17 JUDGE HORNER: I was so anxious to hear what Mr. Haber had
18 to say, I forgot to press the button.

19 MR. HABER: So I wanted to just direct Your Honors to where
20 certain of these arguments were made in the petition because I know that
21 you did ask that question. So I want to direct you to page 26 of the petition.
22 Let me get there. Okay. So regarding the curved battery elements, that is
23 Element 1b, just -- we point to Mestas. And we also point to expert
24 testimony in the record. We have citations to Dr. Anthony's declaration,
25 Exhibit 1002, paragraphs 195 through 197.

1 And I will answer your question as to Exhibit 1061. Exhibit 1061
2 is that Sims patent. That patent is not discussed in the body of the petition
3 itself. But when you go to Dr. Anthony's declaration at the cited paragraphs,
4 paragraph 192, describing again level of skill in the art as to curved batteries,
5 what we have here is a reference to his technology background section
6 where he describes and cites to the Sims patent and the GMBPow document
7 as well. I believe that's actually referenced.

8 JUDGE HORNER: You said paragraph 192 --

9 MR. HABER: Oh, I'm sorry. 196

10 JUDGE HORNER: One ninety-six. Okay. Thank you.

11 MR. HABER: Yeah. It talks about rechargeable batteries, what
12 was known. It references the lithium polymer batteries that were available.
13 It refers back to Section V, which is the technology background section.
14 And that technology background section discusses, for example, Exhibit
15 1021 and Exhibit 1061, the substantial knowledge of those of skill in the art
16 as to curved batteries. And then it is further explained in reply when Patent
17 Owner continues to address these issues, this same evidence is discussed and
18 expanded upon.

19 JUDGE HORNER: I guess the trouble I was having was the
20 petition doesn't cite these background paragraphs. It cites 195 to 197, which
21 refer back to this Section V, which starts at paragraph 42 and is very, very
22 long. And it goes to paragraph 102, I think. So that's a pretty broad
23 discussion of the technology background. It's very difficult for me to see
24 how all of that can get kind of swept into the petition.

25 MR. HABER: So in paragraph 196, it specifically is mentioning

1 the battery portion of the technology background. And the battery portion of
2 the technology background I think is much more constrained. I think it goes
3 from perhaps paragraph 90 to 95. All of that is kind of directing the focus
4 onto the dispute. And the dispute is about what one of skill in the art would
5 have known, and it's all technology background that would have been known
6 to one of skill in the art. And that's what Dr. Anthony is referring to.

7 And to the extent that that remains an issue, it is further addressed
8 in substantial depth on reply. It's all to the same evidence. There's not new
9 arguments. It's just being presented to -- as disputes crystalize.

10 JUDGE HORNER: The only reference to Sims, Exhibit 1061, that
11 I saw in Dr. Anthony's declaration was in paragraph 80.

12 MR. HABER: Yes, that's correct.

13 JUDGE HORNER: Okay. All right. And that's not in the section
14 discussing batteries.

15 MR. HABER: That's true. But again, I think the point that Patent
16 Owner made is a fair point. The Sims patent is old, it's from the '70s. It's
17 not 100 percent relevant to the combination. But it is relevant to the very
18 discrete point that those of skill in the art knew how to curve batteries and
19 knew how to put them into rings. And so it's another bit of background
20 information that I think is relevant and is in the record.

21 Now regarding Mestas and kind of the interior space that's defined
22 by Mestas, there was a question as to how we define the interior space and
23 whether battery caps are part of the interior space, what exactly is the
24 definition of the interior space. And I want to direct Your Honors' attention
25 to, again, the argument that a POSITA would have implemented all of these

1 devices in a small form factor and the overarching system. This is what's
2 shown in Figure 6.

3 And when you again go to Dr. Anthony's -- let me make sure I'm
4 on the right page -- paragraph 25 -- again, when you go to Dr. Anthony's
5 supporting testimony, the interior space stores the controller and other
6 electronic components as required by the claims. This is all of the
7 -- basically all of the components are inside of the device. When we go to
8 paragraph 192 of what Dr. Anthony explained, the enclosed design shields
9 the sensitive electronics from environmental factors, such as moisture and
10 physical impacts. And again, the same figures. All of those components are
11 packaged in the internal device. Dr. Anthony doesn't mention the caps in
12 particular, but the caps there are enclosing the batteries.

13 And when you look at what Mestas says about its battery caps, I
14 want to direct Your Honors to paragraph -- a couple places, 154.

15 JUDGE VALEK: You're referring to paragraph 154?

16 MR. HABER: Yeah, 154, Mestas Exhibit 1010, you can see that
17 the caps are metal caps. They form an enclosure. Portions of the spine
18 member are formed over the dioxy-molded members to define a bottom
19 portion of the compartments 50 and 52. So the compartments are where the
20 housing -- where the battery goes, and the compartments 50 and 52 are part
21 of the spine member. The caps go over top of them and enclose the
22 components and seal everything in place in an environmentally sealed
23 compartment.

24 And when we go to paragraph 174, again, the member 55
25 cooperate with the battery cap 70 and 74 to provide substantially metal

1 enclosure for the batteries. It's all kind of built into the spine member. As
2 we discussed previously, the spine member is surrounded by potting to
3 constrain and confine the batteries in place. Then the caps go over the
4 batteries, and the whole thing is kind of injection molded and sealed
5 together.

6 And so the battery caps basically form part of the outer wall. The
7 battery caps themselves are not potting. The batteries are not potting
8 material. However --

9 JUDGE VALEK: The battery caps in Mestas are not potting
10 material.

11 MR. HABER: The battery caps are not potting material, correct.
12 The potting material retains the spine member. And the spine member has
13 the housing - or has the recess, and that's what retains the batteries. And so
14 when you look at the claim language, the batteries are retained by potting
15 material. They are also covered by these metal caps, but the metal caps are
16 not themselves potting material.

17 JUDGE VALEK: Does Mestas say anything about why there are
18 separate caps? Why they have been placed over the batteries?

19 MR. HABER: I don't think it does. I think one thing that you can
20 see in the Mestas design, the battery caps, they appear to have screws. And
21 so they appear to be removable so that you could remove and replace the
22 batteries. That's one reason why you might want to do it that way.

23 In the Schröder, the finger-ring combination, the batteries are
24 smaller. There is no accommodating in removing them. And so there would
25 not be caps. They wouldn't be removable. So the combination that we're

1 proposing really isn't necessarily making the batteries removable as Mestas
2 does. It's just they're going to be retained in the internal housing in a similar
3 fashion of the Schröder combination.

4 JUDGE VALEK: So there's a trade-off, though. In your
5 modification, you're giving up the ability to have those batteries be
6 replaceable or removable, correct?

7 MR. HABER: Yes. So in the combination that we're advancing,
8 the Mestas, Schröder combination, the interior housing is actually made of a
9 solid resin material. It's just what Schröder teaches. And the batteries are
10 not replaceable in that situation.

11 JUDGE VALEK: Where does Dr. Anthony address the
12 obviousness of that trade-off that one of skill in the art would find it obvious
13 to give up that functionality for this new combination where the body
14 material completely encapsulates all the electronic components including the
15 battery?

16 MR. HABER: So as to that particular trade-off, I'm not sure that
17 he does. What he explains is that there's a definite trade-off in terms of size.
18 And what he says is that miniaturization is what those of skill in the art want
19 to do. And consistent with that, they would miniaturize the device, just like
20 Schröder teaches them to do.

21 And so there are any number of trade-offs that you could make.
22 And replaceability is one, durability is another, sealing is another. And I
23 think all of the references talk about the benefits of sealing and
24 encapsulating batteries. And so the combination with Schröder seals and
25 encapsulates the batteries permanently.

1 JUDGE VALEK: But doesn't Schröder also teach an embodiment,
2 at least for the chip module, where the chip module isn't sealed, it can be
3 replaced?

4 MR. HABER: Yes. Schröder does teach that, and I think that's an
5 important point. Schröder has those trade-offs. You can have this
6 replaceability embodiment that is this Figure 3. You can have this non-
7 replaceability embodiment in its other figures. These are all design trade-
8 offs that those of skill in the art knew about. And what Dr. Anthony
9 explains is that the miniaturization and compactification kind of pressure is
10 something that would drive those of skill in the art to the combination that
11 he's advanced.

12 I'm going to get over to --

13 JUDGE HORNER: I have one question before you trade places,
14 and that's just -- can you speak a little bit to the ITC's treatment of the GMB
15 power reference? Or the other counsel could do it.

16 MR. HABER: Sure. No, I can --

17 JUDGE HORNER: Yeah. I was just going to say I think the ITC
18 looked at this Exhibit 1021 and found that it was really directed to batteries
19 that were intended to be put in larger form factors. The reference talks about
20 the main application of these LiPo batteries being iWatches, sports bracelets,
21 and wrist straps. So can you speak to that? Because I think that might have
22 been the basis for the ITC's outcome.

23 MR. HABER: So when I read the ITC's decision, I think the basis
24 for their outcome was the very particular art that was in front of them. What
25 was in front of them was a reference called Niwa. And Niwa had a -- what it

1 referred to as a substantially flat battery. And one of the things that the ITC
2 said is that there would be no motivation to replace this substantially flat
3 battery in Niwa with a curved battery. And so they didn't account for the
4 curved batteries of GMBPow.

5 And that isn't what we have here. We already have the curved
6 battery teachings. I think GMBPow teaches a number of things. And we
7 showed that figure that had the batteries of different sizes. There were large-
8 size batteries. I think there are certainly teachings that you could use large-
9 size batteries in wrist-worn devices. But GMBPow plainly teaches a finger-
10 size battery, a small battery. And the ITC, I believe, was focused on the
11 particular prior art that was in front of it, which is Niwa. It's very different
12 than the art that we have.

13 JUDGE HORNER: Which battery in the GMBPow reference is
14 the one you're referring to when you say that it teaches a finger-sized
15 battery? Is it the tiny LiPo battery --

16 MR. HABER: Yeah. One of the --

17 JUDGE HORNER: -- the ones that you have at the end of your
18 finger?

19 MR. HABER: Yeah. The one in the grid of six in the upper right
20 but on a finger, the tiny-sized LiPo battery. And Dr. Anthony has explained
21 that that sized battery would have sufficient power characteristics for a
22 finger ring. I'm not sure what sort of scaling there is in that figure. But the
23 point is that it's tiny and it's on the order of a finger size. I think that's what
24 those of skill in the art would have known about.

25 JUDGE HORNER: And some of these batteries look very thin,

1 and some look thicker. So we can't really tell from that particular one if it's
2 a thin or maybe a slightly thicker battery. It's difficult to tell from just that
3 picture.

4 MR. HABER: Right. And I think that that's fair, that's a very
5 good point. There are thin ones. There are thick ones. The point really is
6 that these sorts of flexible thin batteries were available. People knew about
7 them. They knew how to make them in different sizes. They knew how to
8 make them in different power characteristics. They could go on to a website
9 and order what they wanted.

10 This is not something that one of skill in the art would think about
11 and just kind of be completely baffled on. They would know that they have
12 resources and they could go get whatever they needed. And that's what Dr.
13 Anthony had explained.

14 JUDGE VALEK: What about the testimony that's cited in Dr.
15 Mercier's declaration that Patent Owner pointed to? I think it was in
16 paragraphs 95, 96 where he's talking about the inventor's testimony and
17 saying that they looked at this, they said, you still don't have enough power.
18 And then Dr. Mercier it says, I agree, it's not enough to meet the demands
19 for this kind of application. What should we do with that? It seems to
20 directly contradict this one sentence that you have in your own expert's
21 declaration that it would have.

22 MR. HABER: So I think we have testimony from the ITC where
23 we don't have the full testimony. And we have interested inventor testimony
24 describing in the ITC that in fact everything that he did was amazing and
25 novel. And I think you have to afford inventor testimony the weight that it

1 is due. And what the Federal Circuit says is that interested inventor
2 testimony is not afforded substantial weight and we have to look at what the
3 evidence actually is.

4 And what the evidence actually is, is that these things were
5 available. For whatever reason, the inventor believed that it wouldn't work.
6 And I think there's also testimony that what he ended up doing was taking a
7 flat battery and just bending it. And so what the evidence shows is that there
8 was an inventor in front of the ITC who was saying what he needed to say so
9 that his claims didn't get invalidated. But when you look at the evidence
10 themselves, those of skill in the art could make flexible batteries, as
11 necessary.

12 And if they couldn't, I come back to the point that I came before,
13 the '124 Patent has absolutely no explanation at all for how to do this. The
14 patent presumes that these things were available. The evidence shows that
15 these things were available. And if Dr. Mercier is right that one of skill in
16 the art would not know how to do this, we have a substantial 112 problem in
17 these claims.

18 JUDGE VALEK: That is not before us.

19 MR. HABER: Correct. Your Honors cannot decide based on 112
20 it is a problem.

21 MS. WILNER: Thank you, Your Honors. Conscious of time, I'll
22 try to just hit on a couple of high-level points. The Patent Owner today
23 listed a host of these very particular, specific issues that it believes Yuen has.
24 And I think it's important to just zoom out a little bit and remember that the
25 proposed combination here is an obviousness combination.

1 This is not an anticipation argument. And by individually
2 attacking portions of Yuen, maybe where exactly its PCB is located or a
3 certain one maybe is located at this position instead of this one, that's not
4 really what the obviousness inquiry looks at. It looks at what would Yuen
5 have taught to those of skill in the art when taken altogether.

6 I also wanted to quickly address, Judge Horner, you had a question
7 for me about the sensor module and about whether the sensor protrusion
8 extended into that interior space. If I could, I'd like to direct the panel to
9 page 63 of our petition. And on page 63, we have a version of Figure 4 as
10 presented in Yuen. So you might have to turn your head a little bit here to
11 see.

12 But in Yuen, this is an annotated version of Figure 4. And that red
13 line there is similar to the red line in the other figure showing where that
14 interior surface is. And so you can see from Figure 4 in this sort of
15 schematic that there are parts of that sensor protrusion there that do exist
16 within the interior space.

17 And as my colleague mentioned earlier, he agreed with Dr.
18 Mercier that these components can extend outside of the interior space so
19 long as they are retained by the space, which is consistent with the claimed
20 language of '124. I also wanted to address a question I got about whether
21 Yuen's Figures 4 and 7 were different embodiments. And the difference
22 between Figures 4 and 7, if we want to call them different embodiments, is
23 the presence or absence of that protrusion, that sensor module protrusion.

24 To the extent they are different embodiments -- and I'm not certain
25 that they are -- both of them still do disclose that transparent potting

1 material. So we can see for the Figure 7 -- excuse me, for the Figure 4
2 embodiment, Yuen at column 2, lines 29 through 45, indicates that Figure 5
3 is the same embodiment as Figure 4 and does disclose the transparent layer.
4 So whether we're looking at Figure 4 or Figure 7, which is on our
5 demonstratives at Slide 33 -- I won't spend time getting there, but each of
6 those figures do -- each of those embodiments, if we were to interpret them
7 as different embodiments, do disclose the same transparent potting material.

8 And finally, with knowledge I have one minute left, I'll touch very
9 briefly on some secondary considerations issues. I don't think there's any
10 need to go on -- off the public record. I'll just note that obviousness has to
11 be determined on a claim-by-claim basis as a matter of law. And so to the
12 extent that there is no secondary consideration evidence for any claim, other
13 than Claim 1, then that evidence could not apply as part of the obviousness
14 inquiry for those claims.

15 I also wanted to note my colleagues mentioned that without the
16 ring, there would be no app. I think that also works the other way around,
17 that without the app there would be no reason for a user to purchase the ring.
18 There is no evidence in the record, for example, that someone would
19 purchase the Oura Ring were they unable to see their stats after purchasing
20 it.

21 Finally, I did want to list -- or just quickly touch on the Heritage
22 versus Horizon debate on the two different versions of the ring. It is a Patent
23 Owner's burden to show coextensiveness. And we think their position on
24 the Heritage ring is actually internally inconsistent with their complaints
25 about Yuen. They mentioned that Yuen does not disclose some elements of

1 the '124 Patent because it has these flat portions. And the Heritage ring, as
2 you can see on their demonstrative at Slide 47, also has that same flat
3 portion. So we think that Oura should not be heard to have it both ways.

4 JUDGE HORNER: Did you raise that in your Petitioner reply, that
5 contention about Heritage?

6 MS. WILNER: Your Honor, we did raise that the sales data was
7 non-differentiated among products. And so we think that is a relevant point
8 to that. And again, it is the Patent Owner's burden to show coextensiveness
9 with the claims for both the Heritage and the Horizon, if that is what they're
10 claiming today. All right. I see my time has expired. Thank you.

11 MR. PLUTA: I just have three quick points. On that last point,
12 that is a new argument. That's somewhat like a technical argument to me
13 that was not raised in any of the papers. I think the Board appreciates that,
14 so I will not go into why that is wrong. But that's a new argument, it should
15 be stricken from the record.

16 JUDGE VALEK: I think that Counsel was correct, that it's raised
17 on page 25, the last sentence.

18 MR. PLUTA: Right. With respect to the sales data, Your Honor.
19 But they didn't make a comparison between –

20 JUDGE VALEK: I'm sorry (INDISCERNIBLE).

21 MR. PLUTA: Fair play.

22 JUDGE HORNER: Thank you.

23 MR. PLUTA: Your Honor, I would agree it goes directly to the
24 sales data, but they don't make a reference or a comparison to our arguments
25 with respect to Yuen. So I don't think that was fleshed out anywhere in the

1 papers.

2 JUDGE HORNER: So your point is they didn't challenge the
3 nexus showing as to Heritage. They only challenged the sales data not being
4 --

5 MR. PLUTA: Correct. And from a technical standpoint, they
6 didn't challenge the nexus as mapped to the claims.

7 JUDGE HORNER: Yeah.

8 MR. PLUTA: With respect to the discussion on Figure 4 of Yuen,
9 which was at the petition at page 63, if you look at the purported external
10 housing and the internal surface external housing, the whole circuit board is
11 outside the external housing. So that doesn't meet the claims.

12 And finally, I just wanted to address the allegation regarding the
13 inventor's ITC testimony. First, that relevant testimony relating to
14 GMBPow, if I hadn't said it before, is at Exhibit 2024, at pages 190, line 11
15 through 197, line 11. Petitioners did not object to introduction of that
16 evidence in this proceeding. They have his full testimony. He was subject
17 to cross-examination. He is the inventor of the patents. And he was not at
18 that time nor has ever been an employee of Oura. So there's really no
19 incentive to lie or misrepresent the facts.

20 He testified about a trip he made to a specific battery company that
21 we're talking about, GMB Power, and what they found and how it applied to
22 what they were doing. So I think the record's clear on that. Unless the
23 Board has any further questions, we'll rest.

24 JUDGE HORNER: All right. Thank you. I want to thank
25 everybody for appearing today and answering our questions. I want to

1 especially thank our LEAP practitioners for being here today and
2 participating. It's always great to have LEAP practitioners. We benefit from
3 your participation because you clearly know the record really well, and it
4 helps us. We hope you gained some valuable experience and can take this
5 on with you to your next case.

6 So thanks again for the law firms and clients for allowing this to
7 happen as well, because I know sometimes it can be -- you have to sell it.
8 So appreciate you making the effort to do that. The hearing is adjourned.

9 (Whereupon, the above-entitled matter went off the record at 3:33
10 p.m.)

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