Trials@uspto.gov
571-272-7822

Paper 51
Entered: July 8, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

MASIMO CORPORATION,
Patent Owner

IPR2024-00241 (Patent 10,687,743 B2)
IPR2024-00243 (Patent 10,722,159 B2)
IPR2024-00244 (Patent 10,722,159 B2)

Record of Oral Hearing

Held Virtually: April 16, 2025

BEFORE: ROBERT L. KINDER, RICHARD H. MARSCHALL, DAVID COTTA, and ALYSSA A. FINAMORE, *Administrative Patent Judges*.

The above-entitled matter came on for hearing on April 16, 2025, 2025, commencing at 1:00 p.m., via video teleconference.

APPEARANCES:

ON BEHALF OF THE PETITIONER:

ANDREW PATRICK, ESQUIRE
Fish & Richardson P.C.
1717 Main Street
Suite 5000
Dallas, TX 75201
patrick@fr.com
(214) 747-5070

ON BEHALF OF THE PATENT OWNER:

ADAM POWELL, ESQUIRE
Knobbe Martens Olson & Bear LLP
2040 Main Street
14th Floor
Irvine, CA 92614
Adam.powell@knobbe.com
(858) 707-4000

ALSO PRESENT, OBSERVING:

Petitioner: Karl Renner, Usman Khan, and Rick Bisenius

Patent Owner: Brian Claassen, Perry Oldham, and Daniel Kiang

P R O C E E D I N G S

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JUDGE MARSCHALL: Hello, good afternoon. This is a consolidated hearing in IPR2024-00241 addressing U.S. Patent Number 10,687,743, and IPR2024-00243 and IPR2024-00244, with both of those proceedings addressing U.S. Patent Number 10,722,159. The parties are Petitioner, Apple, Inc., and Patent Owner, Masimo Corporation. I'm Judge Marschall. With me are Judges Cotta, Finamore, and Kinder.

Let's start with the parties' appearances, please, and we'll begin with Petitioner.

MR. PATRICK: Thank you, Your Honors. My name is Andrew Patrick and I represent Petitioner, Apple. I am joined by my colleagues, Karl Renner, Usman Khan and Rick Bisenius.

JUDGE MARSCHALL: Thank you. And for Patent Owner?

MR. POWELL: Hi, my name is Adam Powell from Knobbe Martens for Patent Owner, Masimo Corporation. With me are my partners, Brian Claassen, Perry Oldham, and Daniel Kiang.

JUDGE MARSCHALL: Thank you and welcome. The argument will proceed as set forth in the hearing order and according to the emails exchanged with the parties later addressing confidential aspects of the transcript. During your presentation, please refer to exhibit or slide numbers to aid us in following along and to make the transcript clear.

Please do not interrupt the other party's presentation. You may object only during your argument time or following the rebuttal. Please be aware that we have provided a public access line for the public to watch the public portion of this hearing or to listen in. Each side is provided a total of 90 minutes of argument time and you may reserve time for rebuttal.

We, as noted, granted the parties' request to seal a portion of the record and the transcript, and we'll do that after completing the public portion of this hearing. The parties indicated prior to going on the record that they each wanted to reserve 30 minutes for the confidential portion of the hearing, and that leaves 60 minutes each for the public portion of the hearing, in which we'll have Petitioner go first, followed by Patent Owner, and then each side may reserve time for rebuttal in each respective portion of the hearing. So Petitioner will start and you'll have 60 minutes during this public portion of the hearing. And how much of that time, if any, would you like to reserve for rebuttal?

MR. PATRICK: We'd like to reserve 20 minutes for rebuttal, with respect to the public portion. Thank you.

JUDGE MARSCHALL: Okay, so you'll have 40 minutes here and I've got a time of 1:08 Eastern, so at approximately -- 1:09 now -- so at approximately 1:50 Eastern, we'll be expecting you to wrap up. I'll try to give you a warning a few minutes out, but if not, someone in your room there can

hopefully give you a warning sign when you're getting close to the end. And with that, feel free to begin when ready.

MR. PATRICK: Thank you, Your Honor. May it please the Board. My name is Andrew Patrick and I represent Petitioner, Apple. I'd like to ask Your Honors to turn to Slide 2 of our demonstratives which provides an overview of our planned presentation.

Now, as shown in the table of contents provided on Slide 2, we have organized our presentation today to first address the record evidence demonstrating that a person of skill would have found the claimed '159 and '743 subject matter obvious over the teachings of the Iwamiya and Sarantos references, among others, whether based on obvious modifications to Iwamiya, motivated by Sarantos' expressed teachings, or on obvious modifications to Sarantos with or without Shie.

In that regard, my colleague, Dr. Khan, will during the public session, address obviousness of the challenged '159 and '743 patent claims over the combined teachings of Iwamiya and Sarantos. And my colleague, Mr. Bisenius will then also, in the public session, address the further obviousness of the challenged '159 patent claims over Sarantos with or without Shie.

During the confidential portion of today's hearing, I'll plan to address contentions repeated by Masimo with respect to a person of skill's reasonable expectation of success in performing

pulse oximetry at the wrist, as taught by Sarantos. And by doing so, we'll reference both, the testimony of Apple's engineers, relating to their subjective experiences and successfully developing pulse oximetry for the Apple watch, as well as numerous additional prior art references that further corroborate reasonable expectation and success through their disclosures of, among other things, the successes of others in demonstrating feasibility and performing pulse oximetry of the wrist as early as 2007, eight years prior to the earliest effective filing date of Masimo's subject patents.

The majority of the issues that we'll together explore today were, of course, previously addressed by the Board in its final written decisions, finding unpatentable, nearly all of the highly similar challenged claims of Masimo's related '745 patent. And those decisions, of course, followed the Board's earlier final written decision, affirmed by the Federal Circuit, finding all challenged claims of Masimo's related '659 patent unpatentable over prior art combinations featuring Sarantos as a primary reference.

Although a majority of issues in the instant IPRs overlap with those already addressed by the Board with respect to the '754 patent IPR proceedings, Masimo has raised a few original issues in the instant IPRs and the parties have -- and the parties have -- brought to bear additional evidence.

In that regard, although we plan during our presentation to address all disputed issues, we will also highlight for Your Honors' consideration, the differences between the proceedings, where they exist. With that, and unless Your Honors have questions for me at the moment, I'd like to turn our presentation over to Dr. Khan, who will address obviousness of the challenged '159 and '743 patent claims over Iwamiya and via Sarantos.

DR. KHAN: Apologies for the slight delay, Your Honors. Thank you and good afternoon, Your Honors. May it please the Board. If Your Honors could please turn to Slide 8. Slide 8 reproduces two independent claims of the '159 patent, which is generally directed to a physiological and monitoring device with emitters and detectors to determine a physiological parameter. The highlighted text emphasizes the claim limitations that are at issue in these proceedings. The '743 patent recites similar limitations.

I will be discussing the issues pertaining to the Iwamiya and Sarantos combination. In particular, the obviousness of combining Iwamiya and Sarantos, and how said combination renders obvious the limitations of a surface comprising a dark colored coating, which is right in the middle of the column on the left side, the wherein clause, which we -- wherein the opening defined in the dark colored coating, is configured to allow at least a portion of light reflected from the tissue to pass through the

surface. My colleague, Rick Bisenius, will address construction arguments related to the opening limitation, and also limitations related to the change in shape.

Can Your Honors please turn to Slide 15? The first issue I'd like to address relates to the claim limitation, a surface comprising a dark colored coating, which is recited in Claims 1 and 19 of the '159 patent, and sequentially, Claim 12 and Claims 1 and 14 of the '743 patent. I'll note here, Your Honors, that this is the third time Masimo has raised this issue with substantially similar arguments. Masimo raised similar arguments to the ITC '745 IPR and now here. Each time, the Judges have found Masimo arguments related to the dark colored coating unpersuasive. And we ask that Your Honors continue to do so, as you earlier did in the institution decision, and for the reasons we'll briefly discuss next.

If you could please turn to Slide 16. I'd like to just provide a quick overview of Iwamiya. Iwamiya, like the '743 and '159 patents, is directed to a device that can be worn around the wrist to measure physiological parameters. And like the '743 and '159, Iwamiya teaches using emitters and detectors that transmit a signal onto a user's tissue and receive the reflected signals back to determine the physiological parameter.

Shown in Slide 16 is a portion of Iwamiya's Figure 4 and a corresponding description from Column 8, lines 38 to 47.

Although not shown in Figure 4, Iwamiya's devices include light emitting devices on either side of the light receiving unit, shown here highlighted in yellow. The pink layer at the bottom of the figure illustrates a user's tissue.

Light that reflects from the user's tissue is focused using (INDISCERNIBLE) lens and passes through on an optical filter 17, which is a gray shaded rectangle between the two purple diagonal lines. This light is undetected by the light receiving unit 9. Iwamiya uses a light shielding frame 18 that surrounds the light receiving unit 9 to prevent straight light from reaching the light receiving unit before passing through the user's tissue.

Iwamiya describes the function of the light shielding frame 18, but does not provide all the implementation details, such as the material that one would use to successfully implement a light shielding function using frame 18. For that, a POSITA would've turned to Sarantos.

Next slide, please. Slide 17. Slide 17 depicts Sarantos as Figure 22 and its corresponding description. Sarantos, like Iwamiya and the challenged patents, relates to a monitoring device, like the watch, that has emitters and detectors to detect physiological parameters. Figure 22 depicts an example implementation of Sarantos' device, which includes a substrate 2272 shown at the bottom of Figure 22. And on top of which, photo detectors 2212 shown in the dark gray shaded rectangles and

the light source 2208 are disposed.

Like Iwamiya, Sarantos' light source 2208 is separated from the detectors 2212 by walls 2274, and emits light through the window regions 2226 towards the user tissue. Above the light sourcing detectors, Sarantos teaches the use of an in-mold label 2276 or painted or silk-screened masks with windows 2226 between the labels. The masking techniques may utilize black or otherwise opaque material to prevent light from entering or exiting the PPG sensor without -- except for windows 2278. Very much like Iwamiya's light shielding frame.

Slide 20, please, Your Honors. So the Petition explains that it would have been obvious to a POSITA to combine Sarantos' dark colored coating with Iwamiya's light shielding frame, and that is shown here in Slide 20. Such that the light shielding frame 18 is coated with Sarantos' dark colored coating. Dr. Anthony, Apple's expert, explains that doing so would have been obvious and notoriously well known.

If Your Honors could please turn to Slide 19. Slide 19, Dr. Anthony explains that dark colored coatings are well known in the art to block light. Therefore, because Iwamiya does not describe the materials used to perform the light shielding function, a POSITA would've turned to Sarantos, and when Sarantos' dark colored coating is implemented at Iwamiya's system, the combination would perform the shielding function by blocking and

absorbing light to limit reflections.

If you could turn to Slide 21, please. Dr. Anthony also explains that an absorbing material, such as a dark colored coating, would have been particularly beneficial in Iwamiya's system because it would reduce light scattering and improved measurement accuracy. Now, this is a point that the parties dispute. Mainly, Masimo argues that a POSITA would have used reflecting material, not absorbing material, but a textbook from the 1990s on pulse oximetry, namely, Webster, exposes the flaws in Masimo's theories.

If Your Honors could please turn to Slide 23. Slide 23 provides a few snapshots from Webster. These are taken from pages 69 and 96 of Webster. Webster explains that light scattering causes a light beam to deviate from its path and leads to an increase in optical path length. Moreover, as shown in the bottom of the second snapshot here on the slide, Webster teaches that there are two known solutions to limit light reaching the detector to adjust the light from the user tissue. One of these solutions is to coat the housing around the photodiode with -- and I note -- a material that does not scatter or reflect light. Thus, it was well known in the art to use non-reflective material around a detector to minimize scattering and optical length variations. Webster's two solutions are also shown on the previous slide, Slide 22. If Your Honors could please turn to that slide.

The left side of Slide 22 includes a figure illustrating Webster's two solutions. The bottom figure depicts light absorbing material being disposed around the detector. Very much as Petitioner proposed in the Iwamiya and Sarantos combination, and it's not just Webster. Other third-party sources like Schulz in Slide 24 explain the benefits of using light absorbing material around a detector to limit noise and variations and path length.

Thus, Petitioner's combination is not simply supported by opinion of its expert, but it's also corroborated by mutual third-party sources and teachings that were well known in the art. This stands in stark contrast to Patent Owner's position, which is backed up only by corroborated testimony of its expert.

If Your Honors could please turn to Slide 27. And we'll next discuss the limitation of wherein an opening defined in the dark colored coating is configured to allow at least a portion of light reflected from the tissue to pass to the surface. This limitation is recited in Claims 1 and 19 of the '159 patent and Claims 1 and 14 of the '743 patent.

The prior panel in the '745 proceeding and this panel also at the institution stage, have considered the mapping of Iwamiya and Sarantos and agreed that it discloses the claim feature. Masimo does not introduce any additional evidence that would merit a change in these earlier findings.

Now, my colleague, Rick Bisenius, will address the

construction arguments as they relate to this feature, but I wanted to briefly describe Petitioner's mappings for Your Honors here. If you could please turn to Slide 28. Referring to Slide 28 and Iwamiya's Figure 4 here as shown in the bottom, Iwamiya's device includes a light shielding frame 18 with a dark colored coating, as I just described. The dark colored coating, as you can see here, has a gap or opening in which the optical filter 17, shown in green, is placed. Its optical filter filters light before it reaches detector 9.

Now in Petitioner's papers, Petitioner presented two ways in which Iwamiya and Sarantos disclose this claim feature. First, as shown here, the dark colored coating that surrounds the detector 9 clearly has an opening between the two purple lines. This opening is configured to allow at least a portion of light from the tissue to pass through the surface.

As Dr. Anthony explains at the bottom of Slide 30, a POSITA would have understood the light to pass through the surface, just like one would have understood light or water to pass through a sieve with openings. Here, if you turn back to Slide 28, Your Honors, you have a light shielding frame with an opening -- a light shielding frame with a dark colored coating that has this opening that allows light to get through.

Second, a second way in which Iwamiya and Sarantos render this claim obvious is if one were to consider the entire contiguous surface of the dark colored coating and the optical filter

17 as one -- as corresponding to the claim surface. Under such a mapping, light also clearly passes through the surface to reach the detector.

If Your Honors could please turn to Slide 39. The '743 and '159 claims also recite limitations related to the arrangement of detectors. This is recited more clearly and shown more clearly in Slide 40, if you could please turn there. The '743 and '159 claims recite that the plurality of detectors are arranged in an array having a spatial configuration corresponding to a shape of the tissue measurement site mounded by the light block.

Your Honors, the similar issue was addressed in the '745 IPR with respect to Claim 15 and the Board did not find Masimo's arguments persuasive. Petitioner here intends to rest on the briefs on this particular issue. If Your Honors have any questions, I'm happy to answer.

JUDGE MARSCHALL: Yes. I have a question about the argument in the Sur-reply from Patent Owner in the '243 case and others. But they argue that Petitioner misunderstood what the opening is defined by in Iwamiya with some pink shading. I'm looking at the Sur-reply at pages 4 to 6 or so. They can say that -- you're saying basically it's a circular cylindrical shape with a hole in it, but that's the wrong object and what you're really looking at is kind of a frusto-conical rectangle or square it looks like, and because of that, you have misidentified the opening. Could you

respond to that argument?

DR. KHAN: Yes, Your Honor. So if I could ask you to turn back to Slide 28. So that figure, you can see it shows the light shielding frame with a dark colored coating, the purple lines. It's sort of, I guess, a trapezoidal type of figure, if you even include the optical filter at the bottom. So I think -- and thank you for bringing this up because -I think we'd like to acknowledge that there was an error in the Petitioner Reply in the markup.

We have pointed to the light shielding frame 18 consistently in our papers from the time of the Petition as corresponding to the dark colored coating and the optical filter space in between the two lines as being the opening. Now, whether actually that shape of the dark colored coating is circular or otherwise, you know, in this more trapezoidal shape, it's not really relevant to the fact that there is still an opening there, whichever shape you'd like to have it. So we'd acknowledge that there was a mistake there in the point that we referred to in the Petitioner Reply; however, it does not change our position and/or mapping on this issue.

JUDGE MARSCHALL: Okay. Thank you.

DR. KHAN: You're welcome. If Your Honors could please turn to Slide 45. The next issue I'd like to address is the obviousness in view of Iwamiya and Sarantos of the claim feature reciting wherein the physiological parameter comprises oxygen

saturation. This limitation is reciting Claims 11, 18, and 24 of the '743 patent and Claims 8 and 17 of the '159 patent. I'll also note that the same limitation was considered in view of the same art of the '745 IPR and the Board at that time did not find Masimo's arguments persuasive.

Slide 46, please. As noted earlier, Iwamiya teaches determining physiological parameters using the configuration shown in Figure 4. Again, it's reproduced at the bottom of Slide 46. In particular, Iwamiya teaches that its emitters 6 -- and you can note here, Your Honors, there are two emitters shown in green, 6 on either side of the detector. Iwamiya teaches that its emitters can operate in the infrared range around 940 nanometers and that's shown -- notably as shown in the snippet on the bottom right side of Slide 46. Iwamiya also notes that it is broadly directed to detecting biological information. One example of which is a person's pulse. There's no disclosure that Iwamiya is solely limited to measuring pulse.

If Your Honors could turn to Slide 48, please. Sarantos discloses that one can measure additional types of biological information, such as oxygen saturation when using multiple LEDs. For example, Sarantos teaches that one simply has to adjust the wavelength of a light emitting device to red or infrared wavelengths, and that each emitter can then emit a different wavelength of light. Thus, when you have multiple emitters like

you did in Iwamiya, the two emitters can be configured to emit red and infrared wavelengths to obtain the data for oxygen saturation. The emitters can be spaced apart or closely. There's general flexibility for that, but again, none of this was new. This is disclosed clearly in Sarantos.

If Your Honors could please turn to Slide 52. Dr. Anthony explains -- and this is corroborated further by Brady in Webster, the textbook on pulse oximetry -- that it was known in the art that one could obtain pulse oximetry data by using LEDs that generate red and infrared light. In Slides 55 to 57, Dr. Anthony also provides various possible implementations on how a POSITA could have implemented the light emitters with different wavelengths in Iwamiya's device.

He also explained in several paragraphs -- for example, paragraph 97 of his first declaration in the '243 proceeding, and paragraphs 90 to 93 of his first declaration of the '241 proceeding -- how it would have been obvious that in such a combination, a POSITA would have adjusted related elements, such as the bandwidth of the filter or detector devices so that red and infrared wavelengths can be used and detected.

If Your Honors could please turn to Slide 53. Dr. Anthony explained that incorporating the teachings of Sarantos in Iwamiya to obtain oxygen saturation information would have been beneficial because with a simple tweak, one could use Iwamiya's

device for multiple measurements. Mainly, pulse and oxygen saturation measurements, given Iwamiya's device added utility and functionality, and also benefitting the user from no longer having to buy multiple devices for these measurements.

With that, Your Honors, unless you have any further questions, I'll ask my colleague, Rick Bisenius, to come to the podium and discuss the next set of issues.

JUDGE COTTA: I did have a couple quick questions. First off -- and I think they both relate to a footnote in your Reply. First, you said Claim 11 of the '743 patent doesn't necessarily require determining oxygen at the wrist. That's not a claim construction that you've advanced, is it?

DR. KHAN: You know, Your Honors, we're just pointing out that the '743 claims, especially Claims 1 to 13, there's no -- the word "wrist" is just not mentioned there and therefore, the determination of oxygen saturation, it's -- whether they said the wrist or not, it's not relevant to that set of claims.

JUDGE COTTA: Just looking at Claim 14, it does mention a wrist in the first clause. It's the light pattern is approximate to a wrist of a user.

DR. KHAN: That --

JUDGE COTTA: Why doesn't that carry over to Claim 18?

DR. KHAN: I'm sorry. Claim 18?

JUDGE COTTA: Oh, did I get the claim wrong?

DR. KHAN: Yes. I think we talked about Claim 11. Not any claim depending from Claim 14.

JUDGE COTTA: Okay.

DR. KHAN: We agree, Your Honor, that Claim 14 recites proximate to the wrist.

JUDGE COTTA: Okay.

DR. KHAN: But not the first set of claims.

JUDGE COTTA: Okay. And then secondly, you point out in that footnote that there are a number of references that were submitted -- that were not previously submitted during the ITC proceeding and I wondered if you might highlight any differences in the record here, as compared to both, the ITC proceeding and the prior IPR proceeding.

DR. KHAN: Yes, Your Honor. I would just like to doublecheck that point and make sure I give you an accurate list of references. So if it's okay with Your Honors, I'll come back and can give you that list of references.

JUDGE COTTA: That's fine.

DR. KHAN: Thank you.

JUDGE MARSCHALL: I had a couple of questions about Claims 12 and 24. Are you addressing that subject matter or should I hold those for now? It's with the length issue.

DR. KHAN: Oh, sure. Your Honors, I'm happy to take

questions. I just wasn't sure which claim that was.

JUDGE MARSCHALL: Well, you might be having an internal debate as to who gets to answer these. Yes. Well, Claim 12 requires a larger width than a length, as you know, for the opening, and I just wanted to make sure I understand your position. The opening for Claim 1, of course, refers to the opening of Iwamiya and the actual filter sits within that, but for these claims, or at least Claim 12, it appears that you're relying on openings within the coating in Sarantos. Is that correct, at least to modify the opening in Iwamiya?

DR. KHAN: Sorry, I'm just pulling up the -- I said the '743 -- I think you're referring to the '159; is that right?

JUDGE MARSCHALL: Correct, the '159. Claim 12 with --

DR. KHAN: Gotcha.

JUDGE MARSCHALL: -- width larger than the length.

DR. KHAN: Yes. So the opening there is the dark -- is the one in the dark colored coating, Your Honor. And if you'd like, I can also briefly address the width and length imitations.

JUDGE MARSCHALL: Well, I think I understand it. You're bringing in the idea with these HAR photodetectors from Sarantos, which are rectangular. And the teachings that the openings or the windows in Sarantos would be co-extensive with those rectangular diodes -- so therefore, those openings would

have a larger width and length, correct?

DR. KHAN: That's correct.

JUDGE MARSCHALL: And your argument is it would be obvious to apply that to the opening in Iwamiya, but as Patent Owner argues in the Sur-reply, there's nothing in the combination -- your original combination of Iwamiya and Sarantos -- that brings in the HAR photodetectors from Sarantos. So I'm wondering what your response to that argument would be.

DR. KHAN: Yes. Your Honors, the photodetectors are provided in Iwamiya itself and the -- it is the optical filters -- there's an optical filter placed above the photodetectors that allows for the radiation to be filtered, and that optical filter is placed within these windows. And I think Iwamiya generally -- sorry -- Sarantos generally teaches that when you are implementing this type of a system with windows and a photodetector, that they would be correlated dimensions. And I think we take that teaching and we apply it in Iwamiya.

JUDGE MARSCHALL: Okay, but if you're using Iwamiya's detectors, you would have to kind of bring in the HAR photodetectors that are rectangular in Sarantos to kind of get your argument off the ground, right?

DR. KHAN: Not necessarily, Your Honors. I think we present in the Petition that there's an annular light guide unit that depicts a radiation in an annular sort of pattern onto the skin. And

as we mentioned, if Your Honors would please -- if you don't mind me indulging here for a second -- Slide 63. You can let me know when you're there.

JUDGE MARSCHALL: Yes, I see it.

DR. KHAN: Yes. Basically, I think what we said here is that, you know, even in that annular pattern, you have a width and a length and you have width and lengths that are different. And our position here is that in a pattern, especially like an annular one, you have -- you know, even if you say it's circular, there is a width and there's a length, and we point that out. So even in an annular pattern, you have a width and a length.

I think what we also point out is that on the next slide, Your Honor -- Slide 64 -- that some of these claims, it just requires a width or a length. If the pattern has a width or a length. It doesn't tell you exactly what, so it really -- the claim is very broad and it just requires that the patent has some type of length, some type of width. It doesn't tell you between what, where particularly in the pattern, anything like that. The claim is very broad. And even within an annular light pattern, you would find that this claim is satisfied by Iwamiya and Sarantos.

JUDGE MARSCHALL: I guess if we could focus on Claim 12 in the 243 case or the 244, but I think you're addressing the 243 with Iwamiya involved. I'm not seeing an argument that tracks what you're showing in Slide 63, possibly because you're

citing to the 241 case, but -- so that's where I'm having trouble. It seems like in the 243 case at least for Claim 12, which requires -- this is referring to an opening, not a second shape, which is involved in Claim 24. It doesn't rely on Iwamiya in the manner that you just suggested in the annular ring. It's really relying just on Sarantos and saying it would've been obvious to bring in the rectangular HAR photodiodes and the correlated openings into Iwamiya.

DR. KHAN: Yes. I think, Your Honor, you're right. That's the Sarantos-based grounds and I'll invite my colleague, Rick Bisenius to address that particular point, and I think that will kind of segue also nicely into the discussion that he's going to have. So if it's okay, if I may transition over to my colleague who will address --

JUDGE MARSCHALL: Yes.

DR. KHAN: -- that particular point.

JUDGE MARSCHALL: Yes, that's fine. Just to be clear, those are Iwamiya-based grounds though for Claim 12 in the 243 that I'm looking at.

DR. KHAN: Yes.

JUDGE MARSCHALL: There's also --

JUDGE COTTA: And it seems like it would also apply to Claims 13 and 20 of the '743 patent.

DR. KHAN: Okay, let me take a look at that, please.

Okay. And Your Honors, just before I transition over to my colleague, I do want to note that the ITC did not have the Li, Cai, Pang, Maattala, and other references of record that have been made of record in these IPRs. Thank you.

MR. BISENIUS: Good afternoon, Your Honors. I believe my colleague might've just been a bit confused by the different claim elements for citing width and length because some of the elements -- some claims refer to width and length for different parts of the device. With respect to Claim 12 in the '159 patent specifically, my colleague is correct that for the independent claim, we were not relying on any specific photodetector from Sarantos. For the independent claim, we were relying on Iwamiya -- Iwamiya's photo detector.

For the Claim 12, we propose these window sizes that would correspond to the HAR photodetectors because those high aspect ratios would improve the ability to detect the wavelengths. We elaborated on those arguments in our Petitioner's Reply, and so you are correct that for that specific claim, dependent claim, Claim 12, we are relying on adding in these specific HAR photodetectors from the Sarantos reference into the Iwamiya device, in order to achieve those improvements that we discussed. One of them we mentioned in the Petitions, the high aspect ratio, but other improvements that we elaborated on in the Petitioner's Reply.

JUDGE MARSCHALL: Okay. I guess that was getting

to my question. You did elaborate a bit in the Reply, but if it's not in the Petition -- I just wasn't seeing much in the Petition as to the why you would bring in these HAR photo detectors.

MR. BISENIUS: The reason --

JUDGE MARSCHALL: Just because they're high aspect ratio in a vacuum, I don't know if that's a positive or a negative. It just seems like it's a fact of a type of photodetector, and you need to do a bit more, either in your declaration or the Petition to kind of support why you'd bring in the stuff that you previously hadn't addressed in the Petition to kind of get the Claim 12 argument off the ground.

MR. BISENIUS: We believe that the citations for the portion of Sarantos that were in the Petition identify why those high aspect ratio photodiodes would've been desirable, and then elaborate on the Petitioner's Reply, but we'll rest on what is in the Petition and the Petitioner's Reply on that issue.

JUDGE MARSCHALL: Okay. And then Claim 24 requires a different -- a second shape with the different width and length, and you just rely on the same teachings for Claim 12, and I'm wondering why you equate the showing as to the different width and length for an opening to the different width and length for a second shape. Are they truly co-extensive or identical for these purposes?

MR. BISENIUS: Well, we don't believe that the claim

elements are co-extensive or identical, or the claim recitations are co-extensive or identical. We believe that the reasoning would apply to Claim 24.

JUDGE MARSCHALL: So if you bring in the HAR photodiodes and the openings that are rectangular from Sarantos, it not only would satisfy Claim 12, it would automatically and necessarily disclose the claimed shape of Claim 24? Is that what you're --

MR. BISENIUS: No, we're not saying that would necessarily disclose that. I think the description is really about the different -- the ability to have different sized windows in Sarantos. The teaching from Sarantos taken into the combination.

JUDGE MARSCHALL: Right. I guess -- well, if it wouldn't necessarily disclose what's in Claim 24, then wouldn't there have to be more argument or evidence to address the differences in the claim scope between Claim 12 and Claim 24?

MR. BISENIUS: Perhaps, Your Honor.

JUDGE MARSCHALL: Okay. I'm just making sure I'm not missing something. And I know you're running out of time already. You've got four minutes left and you haven't addressed the 244 yet, so I just want to highlight some things I was looking at in that case.

MR. BISENIUS: Okay.

JUDGE MARSCHALL: Obviously, the collateral

estoppel issue is a big one for Sarantos-Shie, and for Sarantos alone, arguably the biggest issue is the change in shape argument in evidence you have in the Petition, and I know you expanded on that in the Reply quite a bit, but I'm really focused on what's in the Petition for the change in shape issue for Sarantos alone.

MR. BISENIUS: Yes, Your Honors. Just very briefly, I was wondering if you had any questions about the arguments relating to claim construction for the opening defined in a dark colored coating. We believe that the case law in the Petitioner's Reply establishes that it's entirely proper for the Petitioner to rely on one claim construction in the district court and a different claim construction in the IPR proceeding.

And this is confirmed, actually, by the *Netflix* case that was cited in the Patent Owner's Sur-reply, which states that there is no requirement that a party present the same construction before the Board in the district courts and that there is nothing to prevent a Petitioner from advancing one construction in the district court as an infringement defendant in a different construction as a Petitioner before the Board. In fact, it happens all the time. But if Your Honors don't have any questions on that issue, I can move directly to the 244 proceeding.

If you would, I'd like to move to Slide 67 of Petitioner's slides. And here, we're discussing the changing of the shape of the light from the first shape to the second shape, that's in Claim 1 and

19 of the '159 patent. I'd like to start out by pointing out that Masimo presents an inaccurate framing of Apple's positions in the Petition. It is not Apple's position that any light traveling through any transparent or translucent material would inherently change the shape of the light. In fact, Apple successfully asserted in the ITC that simply changing the size of the light would not fall within the scope of this claim.

For example, changing the size of light from a first circular shape to a second differently sized circular shape would not qualify as changing the shape of the light. Apple maintains that position in our arguments in this proceeding are fully consistent with that condition.

If we turn to Slide 70, when we discussed the first shape of the light, we argued that it would be based on the specific arrangement of the LED light sources, and Sarantos disclosed that they could be closely grouped together or they can be spaced apart, and this would define the shape of the light.

Turning to Slide 71, one example given with respect to Figure 18 on the right is that Dr. Anthony testified this would be an oblong or barbell shape because of the two side-by-side LEDs. Moving to Slide 73, this is from the original Dr. Anthony declaration in support of the Petition and what we had argued is that the in-mold label defines the shape of the window portion 2226 through which the light emitted by the light source 2208 is

guided. We also cited, too, some portions of Sarantos that identify that there are micro lenses. They have refractive properties. And then he stated that changing shape due to the refractive properties of these translucent -- or translucent or transparent retrievals and due to the shape defined by the in-mold label is what would cause the shape of the light to change.

So this has been our position the whole time. This is from the first declaration and then we elaborated on that in our Replies. If we turn to Slide 74, here we have Dr. Anthony, once again, discussing the fact that a specification configuration of the LEDs would define the first shape and the second shape would be defined by the refractive properties described in Sarantos and the shape of that in-mold label. And he stated that these refractive implementations of the optical windows are combined with various different configurations for the shape of the openings in the window regions.

Continuing to Slide 75, he stated that the window regions can have various shapes, including square and non-square configurations, and as Masimo has pointed out, those descriptions are related to the HAR photodiode shapes, but as we also discussed, the windows correspond to the shapes of the HAR photodiode shapes, so they would also be square and non-square. He also discussed that all the different implementations in Sarantos are expressly described as being interchangeable.

Turn to Slide 76. Dr. Anthony explained that what sprung to the mind of a POSITA when reading Sarantos is that it's only the combination -- only the arrangements in which the first shape, defined by the arrangement of the LEDs, and the second shape defined by the refractive properties, and that shape of that in-mold label or mask are the same shape that would not meet the claims. Every other conceivable configuration would meet these claims, and then he gave an expressed example with respect to Figure 18 shown on the right here. The side-by-side LEDs would emit a barbell or oblong shape, but then that circular opening would change the shape from the oblong or barbell shape into a circular shape. So it's actually changing the shape of the light.

I'd like to note that Masimo has also asserted that Apple changed what it is identifying as the claim material configured to change the shape of the light. We have not. We've always asserted that it's that window region 2226. It's just that the shape of that window region is defined by the in-mold label or mask.

JUDGE MARSCHALL: Yes, I have a question here. I mean, I sympathize with Patent Owner on this issue because when I read the Petition, you don't refer to the shape of the in-mold label at all. You just say, a POSITA would've found it obvious that passing through a translucent or transparent material would change the shape.

So in the Petition at least, that kind of bald assertion

doesn't seem to be what you're hanging your hat on after the Reply, which I understand. You do cite to that paragraph 35 in the original expert declaration, which you quoted, which does refer to the shape of the in-mold label.

So assuming we're okay with that, there's still a lot of shifting going on when you get to the Reply declaration, because as you just noted, it's not going to always have a change in shape. If you have the same shape of the LED and the same shape as the in-mold label is producing, then you wouldn't have a change in shape, it sounds like. It's only when you have different shapes that you would, and that kind of distinction where some embodiments in Sarantos would meet the claim, some wouldn't, isn't acknowledged, as I see it, in the Petition or the accompanied declaration. Am I missing something there?

MR. BISENIUS: You're correct that we did not expressly acknowledge that dynamic in the Petition itself, but we were identifying the fact that there were multiple different configurations for the first shape of the light based on the various different arrangements, and then there would be different configurations for the second shape of the light based on the shape of that window defined by the in-mold label.

And so it's not an inherency argument. You are correct that there could be some arrangements that would not cover these claims. It's more of an argument of what a POSITA would've

understood from the disclosures of Sarantos. What a POSITA would've at once envisaged reading the disclosures of Sarantos.

JUDGE MARSCHALL: Okay. I guess in your original declaration, you had used the word "necessarily." It necessarily would meet the limitation, which kind of strikes one as invoking inherency, even though that word wasn't used, but I understand your position on that. You're already about four minutes over, so you've got 26 minutes left.

I did want you to at least address briefly the estoppel issue on the Sarantos-Shie, because it seems like Patent Owner has got a pretty strong argument based on case law, which you're familiar with, that says you would be estopped and the only issue is whether the identical issue is before us, as before the prior panel. And it sounds like what you're arguing is well, it's not the identical issue because you have a different record now, like basically in your second shot at it, you've done a better job and it's more thorough and therefore, you shouldn't be precluded. And that just seems like -- I'm not aware of any case that would go that far and allow a party to get out of collateral estoppel by saying, we did a better job the second time around. I was wondering if you could respond to that argument.

MR. BISENIUS: Correct, Your Honor. We don't believe that it's just because there's a different factual record. Our focus is on what is the issue that was decided in the first action,

and so if we look at Slide 94, the case law *In re Freeman*, one of the requirements is that we're looking at the issue -- if the issue is identical to one decided. So we're looking at, not what was the argument made, but what was the issue decided. And so then if we look at Slide 95 in the '745 patent IPR proceeding, what the panel decided is that they concluded that Apple's case for obviousness fails to provide a persuasive motivation for combining Sarantos and Shie. So they're holding there.

What they had decided is that the evidence was insufficient -- the arguments were insufficient to demonstrate that those references could be combined. What they did not decide and was not articulated there is that they could not be combined, that there was no motivation to combine. Does that sufficiently answer Your Honor's question?

JUDGE MARSCHALL: I understand your position. I'm not sure I'm buying it. It just seems like -- it's not so much the record or the wording of the prior case. It's did you have a chance to address the prior issue in the prior proceeding, and the answer to that is yes, and it seems like the same motivation to combine issue here.

So I'm still having trouble with it, but I think I understand your position. I don't know if the reasoning of the prior panel matters as much as did you have a chance to address the exact same issue, which is motivation to combine. So it's still

giving me pause, but I understand your position. Just so you know, you are five minutes over, so you've got 15. I misspoke earlier. You have about 15 minutes left for your rebuttal.

MR. BISENIUS: We'll reserve the rest of the time for rebuttal, unless there's remaining questions from Your Honors.

JUDGE MARSCHALL: Okay, thank you.

MR. BISENIUS: Thank you.

JUDGE MARSCHALL: Patent Owner, would you like to reserve some time for rebuttal in this opening session?

MR. POWELL: Yes, Your Honor. I plan to go for 45 minutes and leave 15 minutes for rebuttal.

JUDGE MARSCHALL: Okay. So we're looking at roughly -- if we're starting at 57, plus 45, so 42 after the hour -- 2:42 roughly. And you can begin when ready.

MR. POWELL: Thank you, Your Honor. I'd like to share my slides really quick with you. Let's see if I can get this set up correctly. Okay. Can you see my slides here?

JUDGE MARSCHALL: Yes.

MR. POWELL: Great, thank you. So I'd like to start with a little bit of background on the patents. I'll be very brief here, but part of what we're dealing with here is the results of Ammar Al-Ali's research on pulse oximetry at the wrist in the 2014 to 2015 time period. And what Mr. Al-Ali looked at is that conventional pulse oximetry applied what he called a two-

dimensional model, which was about focusing on a single light path and the belief that sort of drilling in on one path and eliminating any diffusion or large surface areas of light would increase accuracy. And what he found is that that may be true for areas like the finger, but it's not true for areas like the wrist.

So what he realized is that he could solve the problem and be able to calculate pulse oximetry using this sort of combination of features. Some of these features are about the change in shape, which we've discussed a lot today already, and that's about trying to radiate a larger area -- a larger volume of the tissue. And then he recognized the problem though is that could lead to what's called light piping, which you heard a little bit about, which is the light sort of passing around the tissue and not ever passing through the tissue before it reaches the detector.

So when he realized -- and that of course leads to accuracy problems. It's actually not something that the industry was very focused on, even though Masimo, at the time, was very focused on it. But anyways, this sort of combination is sort of the magic of how you get pulse oximetry to work on the wrist, and we'll talk in a little bit, towards the end here, particularly in the confidential session about how nobody else could get this solved, and the idea that this is very simple and easy is just incorrect and inconsistent with the record.

So this is -- just briefly -- this is Masimo's commercial

embodiment of the patents that we're dealing with today -- the Masimo W1. This is the first and only FDA-cleared pulse oximeter to measure oxygen saturation continuously on the wrist. Still nobody else can match that sort of technology today, and it uses the patented inventions that you're talking about.

Okay. So I'd like to start with the 244 IPR and we'll pick up where we left off -- where Apple's Counsel left off. And as you noted, there's sort of two groups of grounds here. You have the Sarantos grounds and the Sarantos-Shie grounds. I note there's a bunch of other secondary references, like Brady and Han and Utter, but those really aren't at issue today. That's for elements that we're not disputing.

So let's start first with the change in shape, and these are the language that we're looking at in independent Claims 1 and 19. The relevant language is "the material configured to change the first shape into a second shape." And I'd like to start with what we discussed briefly before Apple ended its presentation, and Apple tried to indicate that it didn't actually take this position in the Petition and that it wasn't actually arguing a necessary change in light shape due to refractive properties, and that's just -- it's incorrect.

The Petition here -- let's look at what they actually said. It's on pages 9 through 10 and it's here on the board. It says, a POSITA would have found it obvious that light shining through

translucent or transparent material would change in shape due to the refractive properties of translucent or transparent materials. Nowhere in here did they mention anything about the in label -- or in mask label all of that. They're focused here on a necessary change on the translucent and transparent materials.

And the reason why we're sitting here today is the Board accepted that position. I have here in the lower left corner, you see what the Board instituted. They said, we view the Petitioner's position as based on its argument, that a POSITA interpreting Sarantos would understand that its translucent or transparent window material would necessarily change the shape of light. So this is an inherency argument. That's why we're here today. We're not here today based on the arguments you heard that really came up for the first time in the Reply. We're here to deal with this inherency issue.

And I'll start with what Apple stated about Sarantos in a prior proceeding. The record here is demonstrated now that Apple was just incorrect on this inherency issue and Apple admitted in the prior proceeding that "Sarantos does not describe the material as configured to change the first shape into the second shape." And that, of course, is correct. There is no dispute at all that refraction through a flat window does not change the shape of light. We put that in our POR. Apple did not dispute that issue in its Reply. And what you have here on the lower right corner is a

textbook from a Principles of Physical Optics that makes this principle clear. You have a shift in the light, but it all comes out parallel on the two sides. And this is --

JUDGE MARSCHALL: And I don't take them to argue that now. I think they are arguing that that change coupled with the in-mold label shape could, in many circumstances at least, lead to the change in shape that's required by the claim. Do you dispute that on a technical level, aside from the fact that they maybe backfilled too much in the Reply?

MR. POWELL: I think -- well, okay, the in-mold label, I guess in theory, it's possible, but we don't have any of that in the record here today. We don't have any clear evidence that the in-mold label would somehow necessarily change the shape of light either, and I'll get to that in a minute on the merits. I'm happy to go through that and why some of their arguments here, even if we consider those arguments on the merits, why they're inappropriate. But I hear you and that -- the real issue is that there's a lack of evidence of changing the shape of the light based on that in-mold label.

So very briefly, I'll go through, again, the -- it's also undisputed that the prosecution history dealt with this issue, as well, and the change in shape language overcame art about merely passing through a lens. And so the last issue before I reach the merits in this in-mold label theory is collateral estoppel, and I think

Your Honor was absolutely correct that collateral estoppel applies in this case. Apple took a position that's clearly inconsistent with the earlier position, and the -- so what we have here are the three elements of estoppel. There's no --

JUDGE MARSCHALL: Just to be clear for the record, you're talking about judicial estoppel here, not collateral estoppel, which comes into play with the Sarantos-Shie combination, correct?

MR. POWELL: Correct, Your Honor. I apologize for that. You are absolutely correct. There is a camera covering up the top of my slide where it says judicially estopped. Apologies, Your Honor. So yes, this one is on judicial estoppel. I will reach collateral estoppel in a little bit when I get to Sarantos-Shie. But on this particular issue on inherency and the change in shape, we have an inconsistent position that leads to judicial estoppel, and the issue here is what Apple argued in the ITC.

I'll go very briefly so I can get to the merits of that in-mold label, but basically they said, Apple's lens -- you can see it on the right here -- it's a translucent, transparent material and it's a microlens array. It's got a lot of little structures in there, and they successfully argued that does not change the shape of light. So if they argued that does not change the shape of light, but here they're arguing any transparent or translucent material would change the shape of light. So those two things can't be true and

it --

JUDGE MARSCHALL: Yes.

MR. POWELL: And so --

JUDGE MARSCHALL: Yes, I don't know if we'll need to reach that because it doesn't seem like they're actually relying on that broad argument anymore, even if the Petition could be read that way. So whether there's estoppel or not on that particular argument, it doesn't seem like it's really going to get to the nub of the issue here.

MR. POWELL: Understood, Your Honor, and I agree. I think the real issue here is this -- there's two issues. Is the in-mold label theory new? And here on Slide 17, I think you can clearly see that this is a new issue that was not argued in the Petition. You see the Petition here -- we've highlighted what they said in the Petition in yellow, that it would change in shape due to the refractive properties. The reply, though, they added the refractive properties of the window and due to the shape defined by the in-mold label. That was not in their Petition, and so that is a new argument. I don't think it would be proper for the Board to consider that new argument that they raised on Reply.

On the merits, though, of that argument, it is also -- it would also fail and the reason is that the new in-mold label theory ignores the rest of the claim language. So the claim language we just talked about is in yellow here. The material configured to

change the shape, and then in green, we have other language that is sort of brought in by the new theory, and that's that the material is positioned between the plurality of emitters and a tissue measurement site.

So I'll show you this diagram. This is from Apple's diagram and you can see the window 2226 is what they originally pointed to as changing the shape, and they said that is -- the refractive property of that window would change the shape, and that is between the emitter 2208 in green and the tissue in sort of peach color here. But now they're pointing to these in-mold labels, which are in pinkish purple, and those are not positioned between the emitters and the tissue measurement side. They're off to the side of that, so that creates another issue with the new theory.

And I think the reason why Apple didn't focus on -- or didn't raise the in-mold label theory at all in its Petition is two-fold. So number one, what we just talked about -- the in-mold label is off to the side, not over the emitter. And number two, they had to take this position on Claim 9 and I think my PowerPoint just restarted. You may have lost my slides here.

JUDGE MARSCHALL: We did.

MR. POWELL: Okay. I will see if I can get back to those slides very quickly.

JUDGE MARSCHALL: Looking at your home, it looks like.

MR. POWELL: Oh, I wish that was my home, Your Honor. If only. So let's see if I can quickly get back there. All right. Apologies for the short delay here. All right. So we had two-fold issues. The number one issue is the in-mold label theory is not between the emitters and the tissue measurement, and the other issue is that one of these dependent claims, Claim 9. Apple had to take the position that the window -- that's the 2226, not the in-mold label -- and they had to take the position that the window is formed from acrylic, which is a plastic, and that's because they had to argue, for Claim 9, that the material that changes the shape -- that's -- remember, the material changes the shape, and the language of Claim 9 is the material comprises plastic. So that's why they were arguing that it was the 2226 window that changed shape and not the in-mold label theory.

All right. And then finally, I'd like to go through some of the inconsistencies in Apple's expert testimony here. And this shows that really what we're dealing with is pure speculation on changing shape. You've got Dr. Anthony's opening declaration that states that a square emitting device emits square shaped light. His reply stated that when you have two square devices, you don't get two square lights. Now you get an elongated oblong shape.

During cross-examination, he said there the shape was unknown. And then we also have in the bottom right corner -- this is Dr. Sarrafzadeh. This is a different expert that Apple used in the

ITC case and in the Delaware litigation. And I think it appears that Apple used different experts so they could take different positions because what Dr. Sarrafzadeh said is that the light coming out, even with a square surface, it would be conical and appear circular at the top. So we have this sort of mess of inconsistent expert opinions, which really demonstrates that this idea of changing shape, specially, necessarily, or based on the shape of the in-mold label theory, it's all speculation and it's not supported by any reliable evidence here.

Okay, so I'll move on briefly to Claim 14, and this is about a diffuser, and this is independent Claim 14. The language we have here is a diffuser configured and then I'll -- I won't read the rest of the claim here, but this is important because there's basically no dispute that Sarantos does not disclose a diffuser. So this ground has now been proven incorrect. Apple's Petition in a prior IPR stated "neither Sarantos nor Mendelson disclose a diffuser" and Apple's Reply did not dispute that issue, so I think this particular ground should be rejected.

The other one I wanted to get to briefly is the length and width of the second shape, and I believe this came up during Apple's presentation on Claim 24 where Apple states that in its Reply, it states, the recitations of Claim 24 are not identical to Claim 12, the teachings that the prior art discussed in the Petition with respect to Claim 12 are equally applicable to Claim 24. And

that is just incorrect when you look at the claims.

I think we picked up on this a little bit in Apple's presentation, but Claim 12 is dealing with a width and length of the opening in the dark colored coating, whereas Claim 24 is dealing with a width and length of the second shape of light. And so Apple has not really made any attempt to prove invalidity on this ground for Claim 24. I don't think pointing to Claim 12, which is fundamentally different claim language, I don't think that's sufficient, but I think the Board understands that.

Okay. Now I will reach collateral estoppel, and my apologies earlier for mixing that up. But collateral estoppel is going to apply on the Sarantos-Shie ground, and this is based on the written description in the 465 -- or I'm sorry -- the final written decision in the 465 IPR. And it states here, we conclude Apple's case for obviousness fails to provide a persuasive motivation for combining Sarantos and Shie. Importantly, Apple did not appeal that finding, so that is a final non-appealable finding at this point. All right. Here our collateral estoppel --

JUDGE MARSCHALL: If I could step in with a question that's kind of unrelated. The prior IPRs and ITC decision are all up on appeal to the Federal Circuit and it seems like they're all going to be argued together relatively soon, but it hasn't been set for an oral argument on their calendar yet; is that accurate?

MR. POWELL: Sort of, Your Honor. My understanding

is that they will not be argued together and we actually don't have a hearing date yet. I believe we got a notice for scheduling conflicts between June and November, but the Federal Circuit is pretty backed up right now. I believe the ITC appeal is months ahead of the IPR appeals, as well.

JUDGE MARSCHALL: Yes. That --

MR. POWELL: Does that answer your question?

JUDGE MARSCHALL: Yes, I think so. And it sounds like there was a conflict in June, so there's no chance, I guess, relevant to our proceedings today -- there's virtually no chance this case will be argued before early July, right about the time when these cases would be issuing here, correct?

MR. POWELL: That's correct, Your Honor. I see very little chance of that happening.

JUDGE MARSCHALL: Yes. If for some reason that changes and these are going to get argued in three weeks, you know, just let us know so we can at least know what's going on in these closely related cases at the Federal Circuit.

MR. POWELL: Of course, Your Honor. We will do that.

JUDGE MARSCHALL: Thank you.

MR. POWELL: Okay. Briefly, I will take a look at collateral estoppel here. We have four elements and as we discussed in our briefing, there's only one dispute, and the only

dispute is on the first element of whether the issues are identical between the two actions, and we discussed this. You know, Apple's argument here is essentially that there are different records, different arguments. They say, hey, I did a better job this time around than I did last time. That's not enough to avoid collateral estoppel.

Apple indicated -- they said, well, the prior decision here is really just about that record. It just said that there was no motivation to combine for that particular record, but really, that would be true in every case. Every time a tribunal decides something, they're deciding it on the record that was before them. And so that's why it's very clear in Federal Circuit law that collateral estoppel applies, even if there's new evidence, and that the issue should be broadly understood to prevent repetitious litigation of essentially the same dispute, which is what we're dealing with here.

So I have a few more slides on that issue, but if you don't have any questions, I can skip through them. Do you have any questions on that issue?

JUDGE MARSCHALL: I don't think so.

MR. POWELL: Okay. Thank you, Your Honor. So let me skip through these issues and I will reach the merits of the Sarantos-Shie grounds, and this I will address very briefly because I think that collateral estoppel should dispose of this issue.

Briefly, though, Apple also did not fix the problem from that prior IPR. This is the final written decision. It states that it's impossible to evaluate the merits without first identifying a particular lens from Sarantos -- or for use in Sarantos and Apple still didn't do so. We end up with a bit of a mess. We don't know what the combination is. These are various figures from the Shie reference of various different types of lenses that could potentially be used, and Apple doesn't really specify which one.

We've got Apple saying that there's numerous examples. A parabolic convex lens, a light pipe, a cylindrical lens, or a Fresnel lens, so we have the same issue from the 465 IPR. They haven't identified the combination, much less shown why you would pick any particular one of these lenses.

Okay. So if Your Honors don't have any questions on the 244, I'd like to proceed to the 241 and 243 IPRs. Okay. So these 241 and 243 IPRs, these are the Iwamiya and Sarantos grounds, and similarly, as the 244, we have some other references, but those are not at issue today. So we're going to focus on Iwamiya and Sarantos, and I'll start with claim construction and I'll be brief on this claim construction issue, but Apple has taken some very different positions here.

In Delaware, it took the position that the plain meaning of "opening" is open space and a person skilled in the art would not regard solid material as an opening. And the reason they took

that position is they needed to argue that Apple watches do not satisfy the opening element because the opening is filled with solid material, not empty space. And here by contrast, they're relying on solid material. They say Iwamiya's optical filter 17 satisfies the claim term "opening."

So we have addressed this. There's a number of cases here and I think the issue is Apple has some cases that really deal with a different issue. What we've cited as *Hologic*, *Samsung Electronics*, and *Cambridge Mobile* -- and *Cambridge* was recently designated informative -- the issue here is that a party or a Petitioner is not allowed to rely solely on a construction it believes is wrong, because then it doesn't satisfy its burden.

So the cases Apple is dealing with deal with the situation where the Petitioner says, well, there's construction A and there's construction B. I propose A and I think I win on A, but under B -- even under the patent holder's construction, which I disagree with, I also win under that construction. And that, of course, is allowable.

You're allowed to argue those two alternatives, but what Apple is doing is different. It's not saying that they have any argument at all under their construction that they raised in the district court. They're only saying that under this alternative construction that they admit is -- that they believe is wrong, they say under that construction, they should win and that's what's

barred here by these cases -- *Hologic*, *Cambridge*, and *Samsung*.

And really the only defense they -- or response they have is they try to point the finger and say, well, what about Masimo. We're just trying to adopt Masimo's position from the district court, but that's really irrelevant because of the burden. Masimo didn't come to this proceeding and try to invalidate someone else's patents. We're responding to Apple and Apple has the burden throughout the entire proceeding. So --

JUDGE KINDER: Mr. Powell, this is Judge Kinder. Can I ask a quick question on this?

MR. POWELL: Of course, Your Honor.

JUDGE KINDER: Have any of these cases dealt with final decisions? I was on the *Cambridge Mobile* panel and typically, this is at a threshold, whether or not to institute trial when we're applying our regulation 42.104. So are any of these cases at a final decision phase where we're already instituted and then we're looking at a Petitioner fulfilling its 104 burden for claim construction?

MR. POWELL: You are correct, Your Honor. All of these cases that we have on the screen here are at the institution decision, but I don't think it matters, and the reason is frankly, we believe the Board could have and should have denied institution, but the fact that the Board didn't do so really shouldn't allow Apple to get off the hook. If the Board could've denied institution

originally, there's no reason why the Board should now say, well, since we allowed -- or we granted institution, now we're not going to consider the same issue when we get to the final written decision. But you are correct. All of those decisions so far have dealt with the institution phase.

JUDGE KINDER: So are you proposing that we adopt the *Cambridge Mobile* obligation to at least explain why you're setting forth an alternative position and that carries over to a final?

MR. POWELL: Yes, Your Honor. That would be our position and the reason is that there's just no fundamental difference here. The issue could have been resolved at the institution phase and if it wasn't, it should be resolved fairly at the final written decision phase.

JUDGE KINDER: And what threshold would you set forth for future Petitioners for having to do and meet this obligation? Any time they propose a construction in district court, they need to address it in the Petition or any term?

MR. POWELL: I think it's hard to set hard and fast rules like that, and that wouldn't be the position. I think in this particular case, we have a very clear inconsistent position and we would advocate for the *Cambridge Mobile* standard, which is that, you know, you're allowed to present alternative constructions, like some of the cases Apple has, but you can't rely solely on a construction that you've argued as wrong because it basically gives

you a chance at, you know -- they kind of want their cake and eat it, too.

They want to come to you and say, well you should invalidate these patents under this particular claim construction that I disagree with, but then if you disagree, we're going to go back to district court and they say, ah ha, I disagree with that construction now. I think I don't infringe under this entirely different, completely different standard claim construction, which I think is unfair and that's the purpose between these cases here.

JUDGE KINDER: Okay. Thank you. I understand your position.

MR. POWELL: Thank you, Your Honor. All right, so --

JUDGE MARSCHALL: Just on that point, is Patent Owner arguing any prejudice aside from the fact they'd like to win? Are they -- I mean, you knew what Petitioner was doing in the Petition, I presume, and they were proposing a construction you agreed with. So I'm just curious what the prejudice would be to Patent Owner in this particular situation.

MR. POWELL: Oh, the prejudice is enormous here. You are correct that we knew what they were arguing in the Petition, so we're not arguing a change in position between the Petition and the Reply, but they're getting a -- basically able to present diametrically opposed positions to try to prevail on IPR here, based on one construction that they say is wrong, and then go

to district court and rely on an entirely different construction for non-infringement.

We would have been happy to deal with this issue once in district court, based on the same construction, and prove that the claims are both valid and infringed under our construction, but we don't think it's fair for them to be able to sort of seek two different bites at the apple on two diametrically opposed constructions. And so that would be the prejudice here, is that this Board could invalidate all of our claims based on a construction that Apple says is wrong and if the Board disagrees, then we still have to deal with the construction that Apple says is right, which is just the exact opposite of what they're proposing in this case.

JUDGE MARSCHALL: So your position would be if there's a non-infringement position based on a claim construction in district court, Petitioners can only seek an IPR based on that same construction in an IPR?

MR. POWELL: No, I don't think so, Your Honor. The issue is they're still allowed to present alternative constructions, which is what some of those cases that Apple dealt with or cited deal with. They can present one construction and say, this is what I think is correct and I should prevail in the IPR, and this is one construction that Patent Owner says is correct and I should prevail in the IPR, but what's unfair is saying I'm only going to rely on the one construction that I think is incorrect and trying to invalidate

the claims on that, but then preserving the right to say, well, ah ha, I always argued that construction was incorrect when we get back to district court. That's the problem and that's how this *Hologic*, *Cambridge*, and *Samsung* line of cases differs from the cases that Apple's citing.

JUDGE MARSCHALL: I understand your position. I do sympathize with both parties at the outset of these proceedings when you may have a belief in a construction, but you have no idea what the correct construction is going to be, as told to you by a district court later on or an IPR panel or ultimately, the Federal Circuit. So it's somewhat moving targets and you don't know where it's -- what the right answer is, according to a Court, so you're kind of trying to talk out of both sides of your mouth, and both sides do it. I don't think there's anything necessarily wrong with that, as long as it's clear to us what the construction is that you're using, but yes, I understand your position.

MR. POWELL: Yes, and I think that's why, in general, the Petitioner should set forth both and they could try to say, hey, I should prevail under my construction and I can prevail under the Patent Owner's construction, but that's why I think the cases set the standard. And you also have to look at the burden. Apple has the burden. The Petitioner has the burden the whole time. If a party is unclear about this, they're welcome to pursue their invalidity defenses in district court, but it shouldn't be able to have this sort

of, you know, heads, I win, tails, you lose situation where the Petitioner, even though they have the burden, they're able to present such inconsistent positions.

Okay. I'd like to address the merits of these IPRs and I'll go to these claims that we have up here -- and I apologize for the multi-colored here, but hopefully it helps illuminate some of the issues we're looking at. You have basically a surface with a dark colored coating on it and you have an opening in the dark colored coating that allows light to pass through the surface. And Apple has described these claims as having a planar surface based on this portion of this specification. Oh, man. My PowerPoint dropped on me again. Let's see if I can get it back very quickly here. I'll have to fix that before the next IPR that we have.

So let's see. Okay. So this is Apple describing this as a planar surface and we included a picture of the Apple device as sort of a demonstration of what we're dealing with here. You can see on the left-hand side, this is an Apple Watch Series 6 device that you see we've cut the back crystal in half, so you can see both, what's above and what's below. You have the detectors below, you have the surface along the back, and then you have this dark colored coating and the dark colored coating in the ring here above the photodetector, and then you have an opening in that dark colored coating that allows light to pass through that opening and reach the photo detector.

What we have in Iwamiya is a fundamentally different structure. At the top of the slide, we're showing the claim language and a picture demonstrating this language from Dr. Madisetti. And what you can see is you have a blue surface across here, you have a black dark colored coating, and then you have a gap in the dark colored coating. That is the opening on the dark colored coating and that opening allows light to pass through the surface.

So you have this surface in blue and that opening allows the light to pass through the surface. Iwamiya is a fundamentally different configuration. What you see here at the bottom of the slide is Figure 3 of Iwamiya and we've focused on the light shielding frame 18 and on the left-hand side, we have an isometric demonstration to show what this looks like in 3D space. But basically, you've got a four-sided box without a top and without a bottom, and that four-sided box is what Apple is calling the surface. And Apple says that this surface would be coated with a dark colored coating from Sarantos, and I'll get to in a minute of why we think that particular combination is incorrect, but let's assume for a minute -- let's just go with that combination.

You've got a dark colored coating on this four-sided box of a surface. There's no dispute that there's no opening in that coating along the sides of the surfaces that we see in Iwamiya on this slide. The parties agree that that box in Iwamiya is entirely

opaque, and the coating that Apple plans to add would coat 100 percent of those sides. It's not the situation where you see above, where you have an opening in that coating that allows the light to pass through the tissue. So it's just an entirely different structure.

Now, what Apple has said is well yes, but what if I add a filter. And you can see -- I don't know if you can see my cursor -- I'm pointing at that filter at the bottom here. That's filter 17. They say, well what if I slap that filter on the bottom of this box and they say, that's the opening. Your surface is this frame and my opening is a filter that I have attached to the bottom of this frame, but that doesn't really make any sense. The claims, as you see here, require a dark colored coating on the surface and an opening in that dark colored coating, and that's the demonstration that we have above, and that opening allows light to pass through.

What Iwamiya is doing, even if you put that filter on the bottom, you have four solid sides -- the surface -- you actually have four surfaces with an entirely hundred percent covered in dark colored coating with a separate -- entirely separate structure of a filter at the bottom. It's just not the same thing. It does not meet the claim limitations and it's a fundamentally different structure.

JUDGE MARSCHALL: Is there any disclosure in your patent that tracks the description that you have at the top of Slide 50?

MR. POWELL: I think the claims themselves track that description perfectly. I think what Apple is doing when they've -- I think their expert, Dr. Anthony, made some references to, well, hey you don't have any disclosure that specifically mentions, you know -- you don't have this picture in your patent, and you're correct, or they're correct that the picture doesn't appear in the patent. But really what they're making is a 112 argument. That really isn't for this Board. The claims are what they are and they very clearly reflect the structure that we see here on the top and not the structure that we see on the bottom. If they want to argue that those claims are unsupported by the specification, they're welcome to do so in district court when the claims go back to district court.

JUDGE MARSCHALL: Well, if your specification contemplates an opening being just an open space with no material in it, so it's both an opening in the surface and an opening in the coating, wouldn't that cover the open boxes, you call it, of Iwamiya, because that's just an open hole, as well, with nothing in it before you get to the optical filter 17, of course. But just ignoring 17 and Iwamiya for the moment, isn't an open box similar to a surface with a hole with nothing in it in your specification?

MR. POWELL: Maybe, but that's not what the claims say. The claims require this limitation that we have here in sort of an orangish brown here. We need to pick better colors, but the light reflected from the tissue has to pass through the surface. It's

not an issue of light passing next to or adjacent to the surface or, you know, through empty space. The issue here is you have a dark colored coating with an opening and so yes, that opening here in the demonstration we have on the screen, there's nothing between the two black pieces, but the light still has to pass through the surface there. And so that's where I think it's different and why the claims make that clear that we have to pass through the surface.

JUDGE MARSCHALL: Could you address the analogies that Petitioner raises in its briefing, saying it's kind of like water passing through a cloth -- through the openings in a cloth? Those are certainly openings and yet you could say that they're passing through the surface of the cloth, even though there's nothing in those openings. Similar to a sieve. So in that sense, there's no material that it's passing through, so there's no surface that you're -- the light is passing through, but passing through a small opening in a physical structure is also passing through a surface.

MR. POWELL: I think it's fundamentally different, Your Honor. The water wouldn't be passing through the surface of the sieve, right? It would be passing through the empty space, right? So I think it's just -- it's fundamentally different. To be honest, I read that analogy. I was trying to figure out what they meant by it. It didn't make a lot of sense to me in the context of the claims because the claims don't talk about a sieve and they

don't talk about any of that. We're really talking about -- we're not talking about water passing through a sieve. We're talking about light passing through the surface, and light passing through the surface makes it very clear here what we're talking about. I don't think the sieve is a good analogy. It's fundamentally different, right? The water can't transmit through that surface. It's sort of going around the surface, and that's just -- that's fundamentally different.

JUDGE MARSCHALL: Okay, I understand your position. Thank you.

MR. POWELL: Okay. Now, very briefly here. I was going to address this. I'm glad Apple admitted its mistake here. These pictures were still in Apple's slides here, but I think it's now clear that Apple is no longer contending that this sort of circular unit 8 is actually somehow relevant, and that's because again, this is a cylindrical lens that is on a different plane, entirely below the light frame. There's no allegation that this lens has any coating on it. It's just a lens that's an entirely different structure.

Okay. And finally, I'd like to very briefly address that a POSITA would not modify Iwamiya with a dark coating. The light shielding frame already shields the light and Iwamiya already has a disclosure of the reflective holder portion 43, which is an analogous structure here. So I think we've addressed this pretty clearly in our briefing, but the reality is, we don't think a POSITA

would be looking to an entirely different reference. They would look to Iwamiya here and at least the disclosure of the materials there. Whether it's reflective or not, though, Iwamiya already describes that material as opaque. So to accomplish the goals that we're talking about, there's no need to add an extra dark coating to it.

And one thing I'll just address very briefly here is that Apple has argued that they were concerned about light scattering and they have cited a number of different references that talk about how it's desirable to have a single path of light. And that's actually contrary to the teachings of Iwamiya. Iwamiya dealt with -- you recall it has the LED and the -- it actually has a light guide that allows for all kinds of reflections before that light even hits the tissue. They're trying to make sure that they collect as much light as possible and direct it into the tissue, and then for the same reason, when the light comes out of the tissue, Iwamiya, for the same purpose, would suggest that you try to collect as much of that light and get it to the detector.

Apple, today, argued that a reflective frame 18 would be a problem because it would lead to light piping, because it would result in stray light reaching the detector. And that's just incorrect because by the time the light gets to the frame 18, it's already passed through tissue. So I'll just briefly show you this picture in Figure 3. We have the light can bounce around in this structure to

the side, goes into the tissue, comes through the lens 8, and then we're dealing with it here in this space. And so this light that reaches this space is already passed through the tissue.

And so under Iwamiya's teachings, for the same reason you want the light to reflect and collect as much to push into the tissue, you'd want that same light here to collect and push as much into the emitter, rather than be absorbed here along the sides.

Okay. Very briefly before we get to the confidential section, I'd like to talk about expectation of success and objective evidence, and I put this at the end because it leads into the confidential section nicely, but I don't want that to detract from its importance. Apple made a big point today about telling you when various other proceedings went Apple's way, but what they didn't talk about much is on this issue, the ITC squarely rejected Apple's position based on the evidence.

We have these particular claims here and as we note, the claims require the measurement site be the wrist in the independent claims and then we have dependent claims stating that the parameter is oxygen saturation. And there was no expectation of success for oxygen saturation at the wrist in 2015. Apple stated here in its Petition, wrist worn pulse oximetry sensors were well known in the industry and that's incorrect here. Again, I'll get my slides back in just a minute. It's not working?

JUDGE MARSCHALL: You've got about a minute left.

I would like to ask just broadly speaking on the 241 and 243 IPRs. Is there any difference in the record that's material when comparing the record here to the record in the 1291 IPR and that final decision? I understand you're arguing they got it wrong, but when I read that decision and the evidence there and the evidence here, it seems very, very similar. I'm just curious if you're saying they got it wrong, we should come at it another way, like the ITC in some instances, or if you're saying there are differences in the record that would help you out here. So I'm wondering if there's any differences in the record that help you when compared to the previous IPRs.

MR. POWELL: You know, I don't know offhand on the specific differences in the record. Would you mind if I address that during my rebuttal time?

JUDGE MARSCHALL: Yes. That's kind of why I asked it. I was just curious. We'd like to know if you want to alert us to anything that is different. I know Petitioner has some things that they think are different than the ITC, but it seems like the record here is very, very similar to the 1291 IPR.

MR. POWELL: Yes. Okay. And I'd be happy to address that during the confidential section here. Very, very briefly here and I'll use just a little bit of time to go through some of these slides, I'd like to talk about the expectation of success just a little bit here.

And this is where we were. Sarantos makes clear that it was not teaching oxygen saturation and it was not able to calculate oxygen saturation. We have this quote here from Sarantos on page 57, making clear that what Sarantos was teaching is green and yellow light, and that the light necessary for oxygen saturation is dramatically different, and that the invention in Sarantos is not tailored for red and infrared light necessary for pulse oximetry.

Iwamiya also never mentions oxygen saturation, and in fact, it teaches away. This is Slide 58. It measures only one wavelength of light in the non-visible spectrum and it filters out all visible light. And so what you have is Apple saying, well, I'd have to take Iwamiya, I'd have to modify it to include red and infrared light, and I'd have to modify it to no longer filter out that light, despite all of the teachings in Iwamiya stating to filter out that light. But supposedly, it would then work perfectly, and that's not correct either. We have this *Boehringer* case. There's little better evidence negating an expectation of success than actual reports of failure, and the record here is replete with reports of failure.

Apple started developing SpO2 at the wrist in 2014. Didn't release the product until 2020. The engineers stated SpO2 at the wrist was "unprecedented" at the time. One of Apple's lead engineers with decades of experience in the industry said, I don't know if it can be done. Other people in the industry agreed. Fitbit is Sarantos' assignee. They didn't release SpO2 at the wrist until

2020 either. And Withings actually had this goofy device -- I have a picture here on Slide 61 -- where it was worn on the wrist. They clearly wished they could get oxygen saturation at the wrist, but they couldn't. You had to actually take the device off and stick it on your finger to get oxygen saturation.

And then here on 62, we have a number of quotes from Apple engineers, which I'll discuss more in the confidential session. And Fitbit, years later, even in 2020, said this was a pretty hard technical problem to measure SpO2 on the wrist. It's not nearly as simple as Apple says. So with that, I will stop and -- unless Your Honors have any more questions for me.

JUDGE MARSCHALL: Oh, I'm sure we'll have some more on expectation of success later, but you have 12 minutes left for rebuttal.

MR. POWELL: Thank you, Your Honor.

JUDGE MARSCHALL: Petitioner, can you start whenever you're ready. You have 15 minutes, so about 3:00 Eastern, I'll be cutting you off.

MR. BISENIUS: Thank you, Your Honor. I'm going to briefly discuss claim construction and one point related to the 244 proceeding, then my colleague, Dr. Khan, is going to discuss the issue of light passing through the surface in the Iwamiya-based grounds. My colleague, Mr. Patrick, is going to address issues related to reasonable expectation of success of measuring blood

oxygen saturation at the wrist during the confidential portion of the proceeding today.

So relating to claim construction, the Patent Owner's Counsel stated that they would be happy to address the issues of both infringement and validity, based on their preferred claim construction, the plain and ordinary meaning in the district court. The congress created the PTAB and these IPR proceedings in order to be a more efficient method to discuss the issue of validity and come to a conclusion on that.

Therefore, if the Patent Owner wants to argue the validity at district court, they should have to argue validity under those same terms here. Now, Patent Owner also stated that they believe that it would be permissible for a Petitioner to offer alternative claim constructions, but they'd have to raise grounds on both of those claim constructions. If that were the standard, the Petitioner would have to identify prior art that includes features that the Patent Owner insists are not necessary for infringement. It would therefore put a higher burden on all Petitioners with respect to showing non-invalidity that it does on the Patent Owner with respect to showing infringement.

And that's not just a policy point that I'm arguing. That's a policy point reflected in the case law. All the cases that we identified in the Petitioner's reply reflect that opinion, that it is permissible for the Petitioner to rely on the Patent Owner's claim

construction in the Petition, as long as they adopt that claim construction, which we have here. Both parties are asserting that the plain and ordinary meaning of that term should be adopted in this proceeding.

Notably, the Patent Owner is not asserting that Petitioner's claim construction should be adopted here. They're just saying that, for some reason, the entire Petition should be thrown out because we have not adopted that claim construction here.

Furthermore, I'll note that the positions regarding the construction of the term "opening" that Masimo attributes to Apple are based not on a full record in the district court, but on an initial non-infringement report submitted in that related litigation. There's been no Markman briefing, there's been no Markman hearing, and there's been no decision by the district court on the claim construction there.

The Petitioner is simply preserving that claim construction argument for reasons of validity discussions in the district court. Here, it is fully appropriate to discuss these issues based on the claim interpretation advanced by the Patent Owner in the district court.

I'd also like to just briefly address a couple of the cases discussed by the Patent Owner. There was some discussion earlier today about *Cambridge Mobile Telematics*. That case is simply

not relevant here because that involved a means plus function claim term and the Petitioner was insisting that there was no corresponding structure, and therefore, that claim term is indefinite in the district court. That's not the case here. There's no means plus functions terms and we're not arguing indefiniteness in any forum.

There are several other cases cited by the Patent Owner and their Petitioners in their Sur-reply that fall into the same category -- dealing with means plus function claim terms. The other cases, including the *Hologics* case cited by the Patent Owner, are instances in which the Petitioner expressly said they disagreed with the advanced claim construction and that it should not be adopted.

And notably, the *Netflix v. GoTV Streaming* case, which is IPR2023-00757, IPR proceeding that was cited by the Patent Owner in their Sur-reply, expressly distinguishes a situation like what we have here from the *Hologic* case. They stated, unlike the situation with *Hologic*, Petitioner did not expressly disagree with a claim construction position in this proceeding and still advance to disagree with position in this proceeding.

And that's why, in that case, the panel found that there is nothing to prevent a Petitioner from advancing one construction in the district court as an infringement Defendant, and a different construction as a Petitioner before the Board. In fact, it happens

all the time. If there are no questions from Your Honors on that issue, I want to briefly talk about one issue in the 244 proceeding.

I'd ask you to pull up the Petition from the 244 proceeding and I want to talk about page 9. Patent Owner had brought up a slide that showed part of the Petitioner's analysis of element 1.2. This is dealing with changing from the first shape to the second shape, but there's an additional analysis in addressing that element in the Petition.

At page 9, we say that Sarantos, Figure 22, depicts light source 2208 comprising the plurality of light emitting devices that shine through a window region 2226, defined by in-mold labels 2274. This statement was made in the context of addressing the specific element related to changing the first shape to the second shape.

Now, could we perhaps have said through a window region 2226 whose shape is defined by in-mold labels 2274? We maybe could have been more articulate there. We said that it was defined by. We believe that that -- indicated that a shape of that window is defined by the in-mold labels and we talked about the light shining through that window, whose shape is defined by the in-mold labels. That's what's shaping the light.

We elaborated on that argument in the Petitioner's reply, but this was not a -- there's not a new in-mold label theory in the Petitioner's Reply. We specifically identified in the Petition that

it's the in-mold label that defines the shape of the window region. If there are no questions on that issue, I'm going to pass things over to my colleague, Dr. Khan.

DR. KHAN: Thank you, Your Honors. I'd just like to briefly address Slide 50 that my colleague on the other side was discussing with you earlier. This relates to the structure that they provided -- two structures, I should say -- in Slide 50. On the top, you can see they have a structure of the surface in a blue line and a dark colored coating in a black line. When Your Honors correctly asked them for support, they were unable to point to any discussion in the specification. Because there is no support for this type of a figure.

Instead, they said, well, the claim language itself supports it. And even that, Your Honors, I think is very questionable. If you see, for instance, the claim recites a surface comprising a dark colored coating. What you see in this figure is arguably a surface on top of the dark colored coating. It's not comprising, so even with the figures, there's a lot of issues.

Now, when we go to the bottom, Your Honors, it's interesting to note that this figure that they provided was introduced for the first time in the Sur-reply and throughout the proceedings, if Your Honors may even recall, Patent Owner raised issues of new evidence, new arguments. And in the Sur-reply, they introduced this themselves for the first time.

In spite of the issues with doing that, I think what we'd respectfully to Your Honors is that even with that figure, when you take a look at it, the bottom side of that figure that they have introduced into the record, it has a contiguous surface on the bottom side, which even according to the Patent Owners on the statements, the structure holds the optical filter in place and therefore, it still satisfies a claim limitation of an opening in the dark colored coating that is configured to allow at least a portion of light reflected from the tissue to pass through the surface. Your Honors, I'm happy to take any questions, if you have -- otherwise, I'll rest there.

JUDGE MARSCHALL: I think that's it. Thank you.

DR. KHAN: Thank you very much, Your Honors.

JUDGE MARSCHALL: And Patent Owner, you've got about 12 minutes left. So you can start whenever you're ready.

MR. POWELL: Thank you, Your Honor. I'll be brief. I'll start with claim construction here. You know, Apple is stating that it's unfair for us to sort of pursue different constructions, but I want to go back to who has the burden, right? Again, they have the burden. They're the ones that came to this tribunal asking to invalidate our claims. If they wanted to do so, they could've made all of these arguments in district court, but instead, they're trying to have sort of entirely different positions.

And the real issue here on any sort of unfairness or

anything -- Apple put itself in this position by waiting until the statutory deadline to file the IPRs. They could've done this earlier and avoided any sort of inconsistency, if they had petitioned promptly. But with that, I'll move on from the claim construction issue.

JUDGE COTTA: Before you do that, can you address Petitioner's point about how you're relying on a claim construction that was only advanced in an initial non-infringement report?

MR. POWELL: Sure. I'm not sure the relevance of that, to be honest. It's an initial non-infringement report, but that is Apple's position and they've made clear that they think that's the correct claim construction and they've made clear that the construction they have in this case or in this proceeding, they think is incorrect. Also, that report was served after the Petition. So Apple filed its Petition and then served its non-infringement position afterwards, taking a diametrically opposed position.

JUDGE COTTA: Have there been any other pleadings in the district court proceeding or in the ITC proceeding where Apple had advanced that construction?

MR. POWELL: I believe they have maintained that construction throughout the Delaware case, but I don't know if that is in the record. I'd have to check and tell you that at the next session.

JUDGE COTTA: Thank you.

MR. POWELL: All right. The 244 proceedings. Counsel pointed to page 9 of the Petition and I'd like to note that page 9 here, what they pointed to with the in-mold labels is a background sort of description of Sarantos. It just says Sarantos Figure 22 depicts light source 2208, annotated in green, comprising the plurality of light emitting devices that shine through a window region 2226, defined by in-mold labels 2274. That's just describing the picture of Figure 22. That's not their actual theory for invalidity. That comes later, which is what we cited in our slide. At the bottom of that page, it says a POSITA would have found it obvious that light shining through translucent or transparent material would change in shape due to the refractive properties of translucent or transparent materials.

So the fact that they said the window shape may be defined by the in-mold label when they're sort of describing Figure 22, it's not their actual theory here. Their theory for changing shape was based on refractive properties of translucent and transparent materials. The Reply arguments are very, very different here.

All right. In the 241 case, you know, Apple argued -- they pointed to that figure that we had in my slides with the blue surface and the in-mold label -- or I'm sorry -- the blue surface and the dark coating that provided an opening there, and they're saying we don't have support. But again, there's two issues here. Number

one, it's not about 112 support. That's something they can raise in the district court if they don't think the claims are supported by the specification. We think they are, but that's an issue for the district court. But I would direct you to Figure 3, if the Board is concerned. Figure 3 of the '743 patent. This is Exhibit 1001. It indicates -- I'll give you a minute to get there. I see some of you looking at your screens.

All right. So Figure 3 shows -- we have a figure here, 102. You have a dark colored coating 306 and that surface 308 underneath. So you have this idea of a dark colored coating on top of the surface and any opening in that dark colored coating 306 would allow light transmitted through the tissue to transmit into that surface 308. So that would be supported. I suspect there's more support in there, but that is one particular example of support for this in the claim, or in the specification.

All right. So with that, I think I will reserve the remainder of my time for the confidential session.

JUDGE MARSCHALL: Okay, thank you very much. It's 3:00 Eastern now. We're going to go off the record, obviously, and we're going to cut off any public access line and we're going to go to a confidential portion of the transcript when we resume. Let's get back at about -- let's say 3:07. Seven minutes should be enough for everyone to take a break and then get back to it for the confidential session.

MR. POWELL: All right. Thank you, Your Honor.

JUDGE MARSCHALL: Thanks.

(Whereupon, the above-entitled matter went off the record at 3:00 p.m. and resumed at 3:08 p.m.)

IPR2024-00241 (Patent 10,687,743 B2)
IPR2024-00243 (Patent 10,722,159 B2)
IPR2024-00244 (Patent 10,722,159 B2)

FOR PETITIONER:

W. Karl Renner
Andrew Patrick
Usman Khan
Patrick Bisenius
Nicholas Stephens
FISH & RICHARDSON P.C.
axf-ptab@fr.com
patrick@fr.com
khan@fr.com
bisenius@fr.com
nstephens@fr.com

FOR PATENT OWNER:

Brian Claassen
Carol Pitzel Cruz
Perry Oldham
Irfan Lateef
Daniel Kiang
Jarom Kesler
KNOBBE, MARTENS, OLSON, & BEAR, LLP
2bcc@knobbe.com
2cmp@knobbe.com
2pdo@knobbe.com
2ial@knobbe.com
2dck@knobbe.com
2jzk@knobbe.com