

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

WILLOW LABORATORIES, INC.,
Patent Owner

IPR2024-00296
Patent 10,984,911 B2

Record of Oral Hearing
Held: April 2, 2025

Before RICHARD H. MARSCHALL, DAVID COTTA, and
ALYSSA A. FINAMORE, *Administrative Patent Judges*.

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P R O C E E D I N G S

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JUDGE MARSCHALL: And good afternoon, everyone. This is a hearing in IPR2024-00296 between Petitioner Apple Inc. and Patent Owner Masimo Corporation (sic), addressing U.S. Patent Number 10,984,911. I'm Judge Marschall. With me are Judges Cotta and Finamore. Let's start with the parties' appearances please, and we'll begin with the Petitioner.

MR. RENNER: Thank you, Your Honor. This is --

JUDGE MARSCHALL: (CROSSTALK). Go ahead.

MR. RENNER: Thank you, Your Honor. This is Karl Renner from Fish & Richardson on behalf of Apple, Petitioner. And I'm joined here in the room with Roberto Devoto, Kim Leung, and Nick Jepsen.

JUDGE MARSCHALL: Okay, thank you. And for Patent Owner -- I'm sorry, I misspoke a moment ago. Patent Owner in this proceeding is Willow Laboratories, Inc. So, Patent Owner, if you could please identify yourself and the counsel that are present here today.

MR. WENTZEL: Good morning, Your Honors, this is Doug Wentzel for Patent Owner Willow. With me in the room is Ben Katzenellenbogen also with Knobbe Martens, and joining remotely is Ben Shiroma, also with Knobbe Martens.

JUDGE MARSCHALL: Thank you and welcome. The argument will proceed this afternoon as set forth in the Hearing Order. During your presentation, please refer to exhibit or slide numbers to aid us in following along and to make the transcript clear. When you are not speaking, please mute your microphones. Also, please do not interrupt the other parties'

1 presentation. You may object only during your argument time or following
2 the rebuttal.

3 Please be aware that we provided a public access line for the public
4 to watch this hearing or to listen-in to the audio portion of the hearing. Each
5 side is provided 45 minutes of total argument time, and each side may
6 reserve time for rebuttal. With that, Petitioner, you will go first, and please
7 let us know if you would like to reserve any time for rebuttal.

8 MR. RENNER: Your Honor, we do plan to reserve ten minutes
9 for rebuttal. There's an administrative matter I wanted to call to attention
10 just to be real quick before we go into the argument, if that's acceptable.

11 JUDGE MARSCHALL: Sure.

12 MR. RENNER: Just wanted to call attention -- it's -- well, just to
13 make sure you saw, there's a Petitioner Updated Mandatory Notices that was
14 filed on the 31st, and it bears on a re-examination -- an *ex parte* re-
15 examination request that was filed, it's not of record here. It's not been
16 briefed into the record or otherwise subject to this. We don't think it's
17 properly part of our oral argument, and didn't intend to bring it in. But if
18 you have any questions, I just wanted to make sure you knew about it, and if
19 there were any questions you had, we would be, of course, amenable to
20 addressing them, it's just not our intention to. I just wanted to, again, make
21 sure you had line of sight.

22 JUDGE MARSCHALL: Thank you for that. Yes, we are aware of
23 that, and we don't have any questions at this time.

24 MR. RENNER: Okay, terrific. Thank you. Then I'll invite
25 Roberto Devoto to the stage. He'll be presenting on behalf of the first part of
26 the argument here.

1 MR. DEVOTO: So, Your Honors, let me know when I should
2 begin.

3 JUDGE MARSCHALL: Whenever you're ready.

4 MR. DEVOTO: Okay, fantastic. Good afternoon, Your Honors,
5 as my colleague, Karl Renner said, my name is Roberto Devoto. I, along
6 with my colleague, Kim Leung, will be representing Apple in this
7 proceeding. As Karl also indicated, we would like to reserve ten minutes for
8 rebuttal.

9 Now, please turn to Slide 2, Your Honors, of our demonstratives.
10 As you can see here in Slide 2, we our Petition advanced two distinct
11 grounds against subset of the claims of the '911 Patent. Both of these
12 grounds relied on Abdul-Hafiz as our primary reference in combination with
13 one or both of Raley and Secker as secondary references. I'm going to be
14 presenting the first ground, and my colleague, Kim Leung, will be
15 presenting the second ground.

16 If we could please turn to Slide 3, Your Honors. So, this slide
17 shows various topics relevant to this proceeding. Given our time constraints,
18 we intend to focus on only a subset of these topics. Specifically, I'm going
19 to begin by providing a brief overview of the '911 Patent with an eye
20 towards describing how the '911 Patent supports various different claim
21 terms that are in dispute in this proceeding. I will then present Abdul-Hafiz,
22 our primary reference, and explain how Abdul-Hafiz satisfies or teaches the
23 various light-block-related features recited in the challenged claims,
24 specifically, the only one opening feature as well as the detection surface
25 area feature, and the recited surface area relationship feature that's recited in
26 the challenged claims.

1 I will then turn to the Raley reference, provide a brief overview of
2 that reference, followed by a discussion of our proposed combination of
3 Abdul-Hafiz and Raley. Specifically, I'll explain how and why the teachings
4 of Raley would have led a person of ordinary skill in the art to modify
5 Abdul-Hafiz's sensors to include three or more LEDs configured to admit
6 light of at least three different wavelengths, thereby satisfying the at least
7 three LEDs feature of the challenged claims. At that point, my colleague,
8 Kim Leung, will then present issues related to the second ground.

9 Now, unless Your Honors have any questions, I certainly would
10 like to turn to Slide 5. Okay, Slide 5 shows a representative independent
11 claim of the '911 Patent, specifically, independent claim 1 of the '911 Patent,
12 which is directed to a physiological monitoring device that includes four
13 distinct components. These components include LEDs, specifically, at least
14 3 LEDs configured to emit light of at least three different wavelengths, a
15 detector, specifically, at least one detector, as well as a light block and a
16 processor.

17 Now, Your Honors, in its briefs, the Patent Owner asserts that the
18 device recited in claim 1 is distinct from prior art devices for two different
19 reasons. First, because of its purportedly innovative light emitter structure
20 that includes at least three LEDs configured to emit light of at least three
21 different wavelengths. Second, because of its purportedly innovative light
22 block structure, they must have only one opening, wherein the opening
23 comprises an area that is smaller than a detection surface area of the at least
24 one detector of the device. Now, key language directed to these purportedly
25 innovative features is shown highlighted in this slide.

26 If we could please turn to Slide 6, Your Honors. Now, to

1 understand the scope of the challenged claims, Your Honors, a brief
2 overview of the embodiments disclosed in the '911 Patent is helpful. So,
3 Figure 1, which is reproduced in this slide, of the '911 Patent really shows
4 the primary embodiment of that patent, and that primary embodiment
5 includes a sensor assembly 200.

6 If you can please turn to Slide 7. Now, this slide illustrates Figure
7 46 of the '911 Patent, which depicts in more detail a sensor 400 that's
8 included in the sensor assembly 200 of Figure 1. Now, Figure 46 was
9 identified by the applicants during original prosecution in support for the
10 claims, including independent claim 1. Now, importantly, Your Honors, as
11 shown in this figure, sensor 400 includes a detector assembly 2400 that is
12 inserted into a shoebox 3200. Now a close-up of the shoebox 3200 is shown
13 in Figure 32B of the '911 Patent, which is also shown on this slide, and
14 which was also identified by the applicants during original prosecution
15 supporting independent claim 1.

16 Now, as it's clearly apparent, Your Honors, when you take a look
17 at Figure 46 and Figure 32B, the shoebox 3200 is an embodiment
18 corresponding to the recited light block comprising of a shoebox structure of
19 claim 1. Now, Figure 32B also shows that the shoebox includes a window,
20 3210, for which light is configured to pass, thereby satisfying the only one
21 opening feature recited in claims 1 and 19, as well as the window feature
22 recited in independent claim 10.

23 Now, Your Honors, I want you to look at this Figure 46, and I
24 want you to take a close look at that detector assembly 2400. Because I
25 want to now take a closer look at that detector assembly 2400 that's shown in
26 Figure 46. If we could please turn to Slide 8.

1 Now, Figure 24 of the '911 Patent provides an exploded view of
2 that detector assembly 2400 of Figure 46. Now, a close review of this
3 figure, Your Honors, is quite helpful in understanding the meaning of the
4 light-block-related claim terms of the challenged claims, specifically, to
5 understand the meaning of the recited detection surface area term, the recited
6 only one opening feature, the recited window feature, as well as the recited
7 surface area relationship of the challenged claims.

8 Now, importantly, Your Honors, this figure shows the detector
9 2410 is wrapped in an EMI shield 2440, and then that wrapped detector is
10 then further wrapped in a foil 2450 having an aperture 2452. Now, Your
11 Honors, two important observations can be made from this figure. First, the
12 figure provides no surface area information about the surface area within
13 detector 2410 that actually receives and detects photons, and at best, it
14 simply shows the surface of the whole light-detecting side of the detector
15 2410. Notably, it does not show what parts of that light-detecting side is, for
16 example, chip packaging, and therefore not photo sensitive or what part of
17 that light-detecting side is photodiode and therefore is photo sensitive. And
18 this observation is important, Your Honors, because it speaks to the meaning
19 of the recited detection surface area claim term.

20 Now, second, the figure shows that any photons that are detected
21 by the detector, not only have to go through the single window or aperture
22 3210 of the shoebox 3200 but also have to go through additional holes such
23 as the holes in the EMI shield 2440 and the additional hole or aperture 2452
24 of the light-blocking foil 2450. And this observation is important as it
25 speaks to the meaning of the recited only one opening in window claim
26 terms.

1 If we could please turn to Slide 9, Your Honors. And I want to
2 turn back to Figure 46, which is shown on this slide. Now, Your Honors, we
3 note that this Figure 46 is the only, I repeat, the only part of the Detailed
4 Description of the '911 Patent that shows any relationship between the area
5 of the window 3210 of the shoebox 3200 and detector-related surface areas,
6 and as such, it is the only possible support from the recited surface area
7 relationship that is the feature that recites, I quote, "The opening comprising
8 an area of smaller than a detection surface area of the at least one detector."

9 To be clear, the text of the '911 Patent, the text mind you, of the
10 '911 Patent says absolutely nothing about the recited surface area
11 relationship. It provides no dimensions or text indicative of this recited
12 surface area relationship, nor does it say why this particular recited surface
13 area relationship is important to, for example, reduce light noise, right, to
14 reduce noise, for example. All the text of the '911 Patent says with respect
15 to the function of the enclosure of the detector assembly 2400, which
16 presumably would include the shoebox 3200, is shown in column 6, lines 45
17 to 47 reproduced in this slide. And this text only makes a very broad and
18 general assertion that this enclosure somehow, in some way, reduces light
19 piping from the emitter to the detector without passing through fingertip
20 tissue. The text says nothing, absolutely nothing about a single opening nor
21 any surface area relationship with respect to light piping or anything else,
22 Your Honors.

23 As such, all we have are the figures, Your Honors, and frankly, all
24 we have is this figure, Figure 46, to guide us in understanding what is meant
25 by the recited surface area relationship and the term detection surface area.
26 But this figure, Your Honors, is incomplete. It does not include or show the

1 foil 2450 that is wrapped around the shielded detector and the foil 2450's
2 aperture 2452. As such, Your Honors, there can be no question that this
3 figure, at best, reveals only one, I repeat, only one relationship between the
4 area of the window 3210 and a detector-related surface area. And that is,
5 that the area of window 3210, is smaller than the area of the light-detecting
6 side of the detector 2410 as a whole.

7 Given this, Your Honors, the term detection surface area, as recited
8 in the claims -- that is, the term detection surface area as recited in the
9 claims, and as understood in light of the Specification, at best means, the
10 surface area of the light-detecting side of the detector. Stated differently,
11 any interpretation of the term detection surface area that is more nuanced
12 than this by, for example, defining this term, to instead speak only to the
13 surface area of the detector that actually receives and detects photons, as
14 implicitly argued by the Patent Owner, is inconsistent with and indeed is not
15 supported by the '911 Patent Specification. This construction, which is
16 implied by the Patent Owner's arguments, is made even more absurd, Your
17 Honors, when you realize that Figure 46 fails to show the relative
18 dimensions of aperture 2452 of the light-blocking foil 2450 and also fails to
19 show which portion of the detector's surface is photo sensitive versus which
20 portion is, for example, non-photo sensitive due to packaging.

21 Moreover, Your Honors, under a proper interpretation of the
22 recited light block and the only one opening feature, in light of the
23 Specification, a device having a light-blocking structure with only one
24 opening through which light is configured to pass, satisfies this light block
25 and only one opening feature regardless of whether a device further includes
26 other light-blocking structures such as an EMI shield or a foil. And this

1 makes sense, Your Honors, given the plain language of the claim. I mean,
2 after all, the claims do not recite that the device has only one light block, it
3 more broadly recites a light block, placing no limitation on the number of
4 additional light blocks that also may be included in the device. Now, unless
5 Your Honors have any questions, I would like to now turn to Slide 15.

6 JUDGE FINAMORE: Counsel, I had a question. This is Judge
7 Finamore.

8 MR. DEVOTO: Sure.

9 JUDGE FINAMORE: Is it Petitioner's position that in Figure 46 --

10 MR. DEVOTO: Mm-hmm.

11 JUDGE FINAMORE: -- detector assembly 2400 does not include
12 the additional features, such as the EMI shield and the foil shown in Figure
13 24, or that the assembly 2400 does include all those additional features?

14 MR. DEVOTO: So, the detector assembly 2400 does include
15 those features, and we know that from Figure 24 of the '911 Patent, which I
16 had walked through in the previous slide. We know that the detector
17 assembly 2400 includes the detector 2410 that is wrapped -- and that the
18 EMI shield 2440 is wrapped around the detector 2410, and then that shield,
19 the detector, that is that wrapped version of detector 2410, is then further
20 wrapped in this additional light-blocking foil 2450 having an aperture of
21 2452.

22 So, all of that is part of the detector assembly. And certainly, what
23 our position is, is that the embodiment that corresponds to the recited light
24 block having only one opening would really be understood to be the shoebox
25 3210, and the fact that the photons that ultimately reach the detector, not
26 only go through the single opening of that light block, but also, as shown in

1 the '911 Patent, must go through the additional openings of the EMI grid as
2 well as the single opening or aperture 2452 of the light-blocking foil 2450.
3 It's important to recognize because it actually shows you that, to bring in, to
4 assert that any structure, or light-blocking structure somehow is not able to
5 be said to have only one opening because of some underlying EMI grid, as
6 the Patent Owner has repeatedly argued, it's just not credible -- it's an
7 interpretation that's inconsistent with the '911 Patent Specification.

8 And as I indicated, it's inconsistent with the plain meaning of the
9 language of the claims, which don't say only one light-blocking structure
10 having only one opening. It opens the door for additional light-blocking
11 structures, such as an EMI shield or foil as well. But the recited one, the
12 light block having only one opening, well, it's clearly satisfied by -- as we'll
13 show with our Abdul-Hafiz low noise optical housing 400, it only has one
14 opening, even when there's an additional EMI shield. Does that help answer
15 your question, Your Honor?

16 JUDGE FINAMORE: Yes, and thank you for clarifying.

17 MR. DEVOTO: So, if we could please now turn to Slide 15, I'd
18 like to provide a brief overview of Abdul-Hafiz. So, as shown on this slide,
19 Abdul-Hafiz discloses a sensor assembly 750 that's used to measure blood
20 analytes in, for example, a finger. The sensor assembly includes a red and
21 an infrared LED. It includes a flexible wrap that wraps around the user's
22 finger, and it also includes a detector assembly 1000, having a low noise
23 optical housing, which is really the main component of the sensor assembly
24 that Abdul-Hafiz touts as being innovative.

25 If we could please turn to Slide 16, Your Honors. And that low
26 noise optical housing 400 is shown in Figures 10B and 10C of Abdul-Hafiz,

1 which is reproduced in this slide. Now, as you can see, Your Honors, from
2 these figures, an EMI shield 1010 is folded over a detector 820, and then that
3 shield, the detector, is positioned within the optical housing 400. Now, it's
4 really important to note, Your Honors, that this optical housing 400 is a
5 separate, standalone piece that is able to open and close to thereby enclose
6 the detector 820.

7 If we could please turn to Slide 17. Now, Figures 5A, 6A, and 3 of
8 Abdul-Hafiz, which are shown on this slide, depict the structure of this low
9 noise optical housing 400, which corresponds, as we've asserted in our
10 Petition, to the light block recited in challenged claims. Now, in the
11 highlighted text on here, Abdul-Hafiz touts that this optical housing, and I'm
12 going to quote this, "advantageously incorporates the functions of a light
13 barrier, an opaque cover, a spacer, and an aperture, as described with respect
14 to Figure 3, in a relatively small, easy to manufacture one-piece design."

15 Indeed, Abdul-Hafiz touts this, and in fact, identifies this separate
16 and standalone housing is the key innovation of its teachings, Your Honors.
17 This is the key innovation of its teachings. And look no further than the
18 abstract of Abdul-Hafiz, and more importantly, the claim, independent claim
19 1 of Abdul-Hafiz, which is directly solely to this standalone low noise
20 optical housing construction.

21 Now, Your Honors, I'd like to make two important observations
22 about the housing 400 based on these figures. First, the housing includes
23 only one opening through which light is configured to pass. Specifically, the
24 circular aperture 470 is the only one opening in the housing 400 through
25 which light is configured to pass and thereby satisfies that feature of the
26 challenged claims. Now, the fact that light also passes through holes in the

1 underlying EMI shield 1010, does not change the satisfaction of this feature
2 for the reasons I explained previously.

3 Second, the detector 820, which was shown in Figures 10B and
4 10C of Abdul-Hafiz to be rectangular in form, has a length of its light-
5 detecting side that is longer than the diameter of aperture 470, so we see the
6 length being longer than the diameter of aperture 470. The figures on these
7 slides, however -- on this slide, excuse me, however, do not provide us with
8 information about the width dimension of the light-detecting side of the
9 detector 820. Abdul-Hafiz, however, includes another figure that provides
10 us with the width dimension information.

11 However, before I turn to that figure, Your Honors, I want to note
12 that our reliance on relative dimensions in the figures of Abdul-Hafiz, to
13 illustrate satisfaction, as you'll see, of the surface area relationship feature
14 recited in the claims, is really no different than the Patent Owner's reliance
15 on relative dimensions from the '911 Patent Owner's figures to show support
16 for this same surface area relationship feature.

17 Now, if we could please turn to Slide 18. And the figure that I
18 noted that gives us information about the width dimension of the light-
19 detecting side of the light detector 820 is Figure 11B, as you can see shown
20 on this slide. Now, this Figure 11B shows the top part of the detector
21 assembly 1000. Now, as testified by our expert, at paragraph 21 of his
22 Supplemental Declaration, because this figure does not show the boundaries
23 of the wrapped -- that is the shielded detector 820, through the aperture 470,
24 Abdul-Hafiz reveals, via this figure, that the width of the light-detecting side
25 of the detector 820 is at least as wide as the diameter of the aperture 470.

26 Now, notably, Your Honors, I want to -- Figures 8A and 8B of

1 Abdul-Hafiz corroborate our expert's assertion, in that same paragraph of his
2 Declaration that, quote, "the surface area of the EMI shield would be
3 understood to be representative of the surface area of the light-detecting side
4 of Abdul-Hafiz, just like the '911 Patent Figure 46." Because 8A and 8B
5 clearly show that that is indeed the case when you look at that width
6 dimension relative to the width dimension of the EMI grid. And the Patent
7 Owner's failure to depose our expert, on this and frankly any other point he
8 raised in his Supplemental Declaration, you know, comes to really no
9 surprise as we see the figures of Abdul-Hafiz being quite clear on this point.

10 Now, Your Honors, given this, the fact that this (CROSSTALK) --

11 JUDGE FINAMORE: Counsel, let me interrupt you --

12 MR. DEVOTO: Mm-hmm. Sure.

13 JUDGE FINAMORE: -- with a few questions on --

14 MR. DEVOTO: Mm-hmm.

15 JUDGE FINAMORE: Figure 11 from your demonstrative here.

16 MR. DEVOTO: Sure.

17 JUDGE FINAMORE: So, that red boundary that's drawn there,
18 that's Petitioner's annotation, correct?

19 MR. DEVOTO: Correct. Absolutely correct, yep.

20 JUDGE FINAMORE: And from what I understand, based on what
21 you just said --

22 MR. DEVOTO: Mm-hmm.

23 JUDGE FINAMORE: -- the support for drawing that boundary in
24 comes from Figure 8A, for example?

25 MR. DEVOTO: Okay. So, let me -- that's a good question. Let
26 me try to make sure I'm very clear on that. The support for drawing that

1 boundary -- so, there's two dimensions shown on that boundary, right?
2 You've got a length dimension, which in this figure looks like the vertical
3 dimension, and you've got a width dimension, which is the lateral
4 dimension. So, the support for drawing a vertical dimension that is greater,
5 that is longer than the diameter of the aperture 470, is found in Figures 6A
6 and 3 of Abdul-Hafiz, which shows that length dimension being longer than
7 the diameter of the aperture 470. So, that gives support for the length
8 dimension being longer than the diameter of the aperture. That, of course,
9 leaves (CROSSTALK) --

10 JUDGE FINAMORE: But just to clarify, Counsel --

11 MR. DEVOTO: Yep, sure.

12 JUDGE FINAMORE: -- and I apologize for interrupting, but
13 Figure 3 seems to be the prior art, not Abdul-Hafiz's disclosed device?

14 MR. DEVOTO: So, that's not entirely accurate. Abdul-Hafiz's
15 touted innovation for its low noise optical housing is that it consolidates the
16 functions of the elements and components shown in Figure 3 in this one
17 single piece, relatively easy-to-manufacture design. So, there's a belief that
18 the structural relationships -- and as our expert has testified to, a correct
19 belief that the structural relationships shown in Figure 3 would be found also
20 and corroborates the structural relationships between those different --
21 between the detecting surface dimension versus the aperture dimension in
22 the ultimate low noise optical housing. After all, it is performing the
23 functions shown in Figure 3. And frankly, we see that in Figure 6A. Figure
24 6A does show the detecting surface being longer than the aperture 470. It's
25 just more prominently shown in Figure 3. Does that help?

26 JUDGE FINAMORE: It does. And I apologize for interrupting.

1 You were covering the length, but I think you were about to turn to the
2 width.

3 MR. DEVOTO: To the width, that's right. So, no problem about
4 interrupting. I'm more than happy to help. So, Figure 11B shows the width
5 being at least as wide as the diameter, so we're relying on Figure 11B to
6 show that the width of the light-detecting side of the detector 820 is at least
7 as wide as the diameter of the aperture 470. Because if it wasn't, we actually
8 would see the boundaries of the detectors. We'd see the wrapped boundaries
9 of the detectors since the detector is wrapped in the EMI shield, we'd see
10 them through the aperture 470. The fact that we don't see them through the
11 aperture 470, means that it's at least as wide, if not wider, than the diameter
12 of the aperture 470. (CROSSTALK) --

13 JUDGE FINAMORE: But are we making an assumption there,
14 Counsel? We see the wrap. That's the red area in your --

15 MR. DEVOTO: Right, mm-hmm.

16 JUDGE FINAMORE: -- (CROSSTALK), right? So, we can see
17 that the wrap is at least as wide.

18 MR. DEVOTO: Mm-hmm.

19 JUDGE FINAMORE: But aren't we speculating that the wrap --

20 MR. DEVOTO: Well, if the detector (CROSSTALK) --

21 JUDGE FINAMORE: -- is at least -- correct.

22 MR. DEVOTO: That's a good question. We are not speculating
23 because Figures 8A and 8B show us -- if you take a look at Figures 8A and
24 8B, you will see, from the exploded view shown of this same sensor, that the
25 width of the detector, which is a rectangular form, right, so that's a length
26 and a width -- when you look at those figures and you see the width of the

1 detector, you'll see that it's largely the same as the surface area of the grid;
2 that is, as of the width of the surface area of the grid. So, take a look at
3 Figures 8A and 8B, and we rely on those figures to support the notion that
4 these are indeed co-extensive. The grid and the light-detecting side, and the
5 width -- that is the width of the grid and the width of the light-detecting side
6 of the detector 820 are the same. In fact, they are either the same or the
7 light-detecting side might be a bit bigger, but we don't need that. As long as
8 they're the same, we're good. We satisfy this relationship. Now, I do want
9 to --

10 JUDGE FINAMORE: One more question --

11 MR. DEVOTO: Yes, go ahead.

12 JUDGE FINAMORE: -- Counsel, before we leave this figure.

13 MR. DEVOTO: Yes.

14 JUDGE FINAMORE: So, it looks to me that that boundary of the
15 detection surface is rectangular.

16 MR. DEVOTO: Yes.

17 JUDGE FINAMORE: If I recall correctly from your Petition --

18 MR. DEVOTO: Mm-hmm.

19 JUDGE FINAMORE: -- there was talk about the detection surface
20 area being a square.

21 MR. DEVOTO: True.

22 JUDGE FINAMORE: Is the Petitioner moving away from the
23 arguments premised on it being a square and focusing on their arguments
24 that it's a rectangle?

25 MR. DEVOTO: Sure. We can say we move away from it. The
26 bottom line is a square is just a type of rectangle. I mean, it's just a type of

1 rectangle, it falls within the definition of a rectangle. The bottom line is,
2 whether it's a square or rectangle, this is satisfied. And so, it's easier to just
3 clearly point that if it's a rectangle, it's satisfied, and we can show that based
4 on these figures. So, does that answer your question? I mean, if you want to
5 say we walked away from square, sure. But I don't think we necessarily
6 need to walk away from it, but to debate as to whether it's a square or
7 rectangle becomes somewhat moot because a rectangle will clearly show
8 satisfaction of these features. Does that make sense?

9 JUDGE FINAMORE: Thank you. It does.

10 MR. DEVOTO: Great, thank you. So, you know, given that what
11 we just described, that we've got these other Figures 6(A and 3, showing that
12 the length is longer than the diameter, now we've got this Figure 11B
13 showing that the width is at least as wide as the diameter or aperture, then a
14 POSITA would have concluded that the surface area relationship recited in
15 the challenged claims is met.

16 Now, Your Honors, it is very important to note that unlike the
17 figures of the '911 Patent, Abdul-Hafiz does provide express disclosure,
18 indicating that its figures are meant to accurately show relative dimensions
19 as evidenced by Figure 11B of Abdul-Hafiz. Which, if you'll look at Figure
20 11B, it shows, in fact, that's what's shown in this slide, it's using relative
21 distances in the figure to make assertions about -- in this case, emitter
22 detector spacings -- but it reveals an intent to actually draw accurate spatial
23 dimensions from Abdul-Hafiz's figures. So, in this sense, Your Honors, as
24 we would submit to you, that Abdul-Hafiz satisfies the recited surface area
25 relationship even better than the '911 Patent itself shows support for this
26 recited surface area relationship.

1 Now, I'd like to point to Slide 19, Your Honors. I'd like to turn to
2 Slide 19. Forgive me. Now, it's important to recognize, Your Honors, that
3 to the extent that you decide that the figures of Abdul-Hafiz are somehow
4 insufficient to satisfy the recited surface area relationship, we advanced an
5 alternative ground on pages 50 to 51 of our Petition. Specifically, as
6 asserted by our expert in paragraph 106 of his Declaration, a POSITA would
7 have found it obvious to limit Abdul-Hafiz's aperture diameter such that the
8 opening has an area smaller than the surface area of the light-detecting side
9 of the detector and to do so in order to reduce ambient and piped light noise.
10 So, you would actually -- you would take -- to the extent that you don't
11 believe that this aperture diameter -- this surface area relationship is not met,
12 well, then it would have been obvious to limit the diameter of the aperture --
13 to limit it, and you would want to do that because it would allow you to
14 reduce ambient and piped light noise.

15 Now, as shown in the annotated figure that was included in both
16 our Petition and the expert Declaration, a POSITA would have recognized
17 that decreasing the aperture of the diameter 470 would prevent obliquely,
18 incident piped and ambient light rays from reaching the detector surface.

19 Now, the annotated figure shows what a POSITA frankly would
20 have understood from basic high school geometry. And I really want to
21 make this point, from basic high school geometry. It shows that they would
22 have understood that the decrease in the diameter of aperture would decrease
23 the amount of piped and ambient light noise from basic high school
24 geometry. For example, Your Honors, consider the intersection between the
25 right piped or ambient light rays shown in this figure, okay? Let's see if you
26 can see me. You see me? Consider the intersection between the right piped

1 or ambient light rays shown in this figure and the right edge of the aperture
2 470 also shown in this figure.

3 Now, while keeping the rays angled the same, imagine moving that
4 ray laterally to the left as the right edge of the aperture is also moved to the
5 left as part of decreasing the diameter of the aperture. Note that a ray
6 incident at that exact same angle would now entirely miss the detecting
7 surface. Now, in order for a ray to then hit the detecting surface when the
8 aperture diameter has been thereby decreased -- okay, you move it to the
9 left, has been thereby decreased, the ray would now have to be made more
10 vertical, okay, for it to hit the detecting surface after you've decreased the
11 aperture size and laterally moved the ray to the left. It would now have to be
12 made more vertical for it to thereby decrease the -- to thereby hit the
13 detecting surface, which is exactly what you want, Your Honors. Because
14 vertical rays are good rays because they pass through the tissue of the finger
15 and therefore provide the information you want to detect.

16 In contrast, oblique rays have wide angles of incidence and are
17 typically piped or ambient light rays that did not pass through the tissue of
18 the finger and therefore are undesirable noise. As such, from this simple
19 high school-level geometry, as shown in this annotated figure, a POSITA
20 would have found it obvious to reduce the area of the aperture 470 to
21 thereby reduce the noise of the sensor.

22 Now, in our Reply, we also added additional references to
23 corroborate this assertion, including the Kimura reference, which explains
24 this geometric relationship in more detail. Now, with that --

25 JUDGE FINAMORE: Counsel, before we move to the Reply --

26 MR. DEVOTO: Yep.

1 JUDGE FINAMORE: -- just focusing on what you have here.

2 MR. DEVOTO: Sure.

3 JUDGE FINAMORE: Is it Petitioner's position that, based on high
4 school-level geometry, looking at this side view here --

5 MR. DEVOTO: Yes.

6 JUDGE FINAMORE: -- a person of ordinary skill in the art would
7 understand that Abdul-Hafiz's aperture is smaller, or are you proposing to
8 modify Abdul-Hafiz's aperture to be smaller?

9 MR. DEVOTO: So, we asserted two grounds: we asserted that
10 you can choose between Abdul-Hafiz being understood to satisfy this, or if
11 you decide that Abdul-Hafiz would not be understood to satisfy this, then
12 you would modify Abdul-Hafiz by further limiting its aperture, that is, the
13 diameter of the aperture, to thereby satisfy this recited feature. So, the
14 Board obviousness is quite clearly there, and we further stated why, right?
15 We further state why, to reduce light piping, specifically, light piping noise
16 as well as ambient light noise. They'd have wide angles of incidence, right?
17 And then we showed, well, look at that, if you decrease it, you know that
18 these light rays would miss. Oh, my goodness, okay.

19 JUDGE FINAMORE: I guess my concern with this being
20 allegedly an obviousness ground is, I don't see a teaching of a smaller
21 opening.

22 MR. DEVOTO: Well, Your Honors, you got to understand --

23 JUDGE FINAMORE: If --

24 MR. DEVOTO: -- okay, I'm sorry. Go ahead, please finish.

25 JUDGE FINAMORE: No, no. Go ahead. Go ahead.

26 MR. DEVOTO: What you read is found in the context of the

1 specific recited surface area relationship feature in the mapping section
2 directed to it. So, when we say obviousness, and we're talking about this
3 feature, and we're explaining it would be obvious to limit the aperture to
4 satisfy this feature, right, because it's in that context of that section where
5 were trying to satisfy this feature, and then we give a reason to do that, limit
6 the aperture. That means decrease the aperture. Limit means decrease,
7 right? To satisfy this feature, it is indeed an obviousness explanation that,
8 look, to the extent you don't think this feature is satisfied, well, it would
9 have been obvious to limit the aperture, i.e., decrease its area or its diameter
10 to thereby satisfy this feature. I don't think it's a credible read of our Petition
11 to assert otherwise. I realize the Patent Owners attempted to do so, but it's
12 not a credible read of our Petition, I'm sorry. This is found -- you're reading
13 it out of context. We are pointing to this surface area feature. We're using
14 this language in the context of that feature. We're using obviousness. Why?
15 Obviousness to limit the aperture, i.e., reduce it, that's what that means, limit
16 it to achieve this ambient or light piped noise reduction, and we explained it
17 with our figure as well. So, I completely disagree with that argument by the
18 Patent Owner. I think it's tormenting us. I think it's an attempt to bury their
19 head about an obviousness argument that we've clearly set forth. We used
20 language to that effect in our ground, and you've got to look at that language
21 in the context of what we were doing, which is a mapping towards that
22 feature. Does that help, Your Honors?

23 JUDGE FINAMORE: I understand your position, yes.

24 MR. DEVOTO: Great. So, Your Honors, I'm running out of time,
25 and I'm concerned about running out of time. So, I'm going to jump ahead
26 to Slide 25 and see if I can wrap this up relatively quickly. I want to

1 actually -- you know what, let's begin with Slide 23.

2 So, as we indicated in our Petition, we modified Abdul-Hafiz,
3 based on Raley. This slide shows quite -- two very unambiguous and clearly
4 disclosed broad teachings that Raley offers, and that's that there was a desire
5 to expand the use of photoplethysmography, it's a monitoring of additional
6 blood analytes, and it further states that it's also possible to measure
7 additional analytes with one additional wavelength of light for each
8 component.

9 Now, for ease of exposition in our Petition, while we may have
10 focused on the particular examples shown in Figure 3 of Raley, that has four
11 emitters, Raley's teachings are broader, as show in this test, placing no
12 limitations on the number of additional emitters of different wavelengths
13 that can be added to measure additional blood analytes.

14 Now, if you could turn to Slide 25, given these broad teachings,
15 and as stated by our expert at paragraph 67 of his Declaration, a POSITA
16 would have found it obvious to add one or more LEDs to the two LEDs of
17 Abdul-Hafiz's sensor in order to monitor one or more additional blood
18 analytes as taught by Raley, and also as taught in some of our corroborating
19 references, to improve the accuracy of Abdul-Hafiz's sensor, thereby
20 satisfying the at least three LEDs feature of the recited claims.

21 Now, I do want to say one important thing, and then I want to hand
22 off the discussion to my colleague. First, Abdul-Hafiz's low noise optical
23 housing is still used to enclose the detector and therefore the innovative
24 advantages touted as being new by Abdul-Hafiz, which is this relatively easy
25 single-piece design of a device that can tell these various functions of Figure
26 3 is used in our combined sensor. Second, Raley's universal disposable

1 probe-end connector structures maintain, thereby allowing the combined
2 sensor to enjoy all of the monitor-compatibility advantages touted by Raley.
3 And finally, Raley's emitter structure is used, thereby allowing us to enjoy
4 the Abdul-Hafiz sensor to enjoy the additional detection of blood analytes
5 through the additional inclusion of one or more LEDs configured to emit
6 light in different wavelengths.

7 So, with that being said -- Your Honors, apologies for the
8 quickness -- I lost track of time, my colleague, Kim Leung, will now present.

9 MS. LEUNG: Good afternoon, Your Honors, may it please the
10 Board. I'm Kim Leung, and I just wanted to say here, that since we're into
11 our rebuttal time, that we'll rest on the papers on the Ground 1B issues, but if
12 Your Honors have any questions on that ground, I'm happy to answer them
13 now.

14 JUDGE FINAMORE: None for me.

15 MS. LEUNG: Okay. With no questions, we'll reserve the rest of
16 our time for rebuttal.

17 JUDGE MARSCHALL: Okay. Patent Owner, I assume that you
18 will be switching over the AV equipment, and you'll be appearing on a
19 screen soon. If you could -- once you get situated, let us know how much
20 time you want for rebuttal, that would be helpful.

21 MR. WENTZEL: Thank you, Your Honor. We'd like ten minutes,
22 and I'm going to share my slides here, if I can.

23 JUDGE MARSCHALL: Okay. Begin when ready.

24 MR. WENTZEL: Thank you, Your Honor. This is Doug Wentzel
25 with Knobbe Martens on behalf of Patent Owner. I'll refer to Patent Owner
26 as Masimo today just as the parties did in the briefing because Masimo

1 retained certain exclusive rights in the challenge, not only in the patent.

2 And like Apple's Reply Brief, we heard today that Apple focused a
3 lot of its presentation on explaining the written description support for the
4 challenged claims of '911 Patent and trying to compare that to Abdul-Hafiz.
5 That's not an issue in this IPR, but regardless, I'll get to why Apple's attempt
6 to compare the disclosures that was prior art to the '911 Patent is an
7 irrelevant and incorrect comparison that fails to show obviousness.

8 So, if we turn to Slide 4 of Masimo's demonstratives, Apple fails to
9 show obviousness for many reasons. There are four key reasons here that I'll
10 be addressing. And turning to Slide 6 is the first issue, which is that the
11 Board already found that Apple fails to show obviousness for most of the
12 challenged claims in this IPR. Independent claims 1 and 10, and all the
13 claims shown on the screen here, require an opening or window with an area
14 smaller than the detection surface area of the at least one detector. Apple
15 relies on Abdul-Hafiz as disclosing this limitation, but as the Board correctly
16 already found, Abdul-Hafiz has not disclosed this limitation, and therefore
17 Apple's ground fails for most claims. And the Board got it exactly right,
18 Abdul-Hafiz does not disclose an opening or a window with an area smaller
19 than the detection surface area. And Abdul-Hafiz's disclosure has not
20 changed, and that fact remains true.

21 So, if we turn to the next slide, Slide 7, in the Petition, the Board
22 relies on Abdul-Hafiz's figures as disclosing particular sizes of the features
23 that Apple relies on. For example, here we can see Apple relies on Figure
24 6A of Abdul-Hafiz as showing the alleged diameter -- showing the diameter
25 of the alleged opening, which is aperture 470, somehow being smaller than
26 the length of the alleged detection surface area. But there are two

1 fundamental flaws with Apple's theory and two fundamental reasons why
2 their theory fails to show obviousness. Turning to Slide 8, the first reason is
3 that Apple's ground is legally incorrect because Abdul-Hafiz is silent about
4 the dimensions and sizes of the feature that Apple relies on.

5 JUDGE FINAMORE: Counsel, let me interrupt you there.
6 Because it's not my understanding that Petitioner is relying on the actual
7 measurements, but instead relying on the relative dimensions, meaning, the
8 length of the detector is longer than the length of the opening in that side
9 view there in Figure 6.

10 MR. WENTZEL: Right.

11 JUDGE FINAMORE: So, I believe the case you have cited on this
12 slide, *Hockerson-Halberstadt*, talks about specific measurements. Is there
13 any support for precluding Petitioner for relying on relative dimensions?

14 MR. WENTZEL: I don't believe, You Honor, that *Hockerson* was
15 necessarily limited to precise proportions, but another Federal Circuit
16 precedent case on this point, *Nystrom*, has nothing to do with precision at all.
17 It's just about how it's generally improper to rely on patents as disclosing
18 dimensions if they're not drawn to scale, and there's no dispute here, figures
19 of Abdul-Hafiz are not drawn to scale. So, I don't think the precision aspect
20 really matters that much here. They're relying on the relative proportions,
21 and that's now allowed. Whereas here, the prior art is not drawn to scale.

22 So, again, moving on into *Nystrom*, the Federal Circuit held --
23 well, just moving back to *Hockerson*, patent drawings did not define the
24 precise proportions of the elements and may not be relied on to show
25 particular sizes. Regardless of precision in *Nystrom*, Federal Circuit held
26 that argument is based on drawings not explicitly made to scale in prior art

1 patents are unavailing. And that's what we have here. There's no dispute
2 that Abdul-Hafiz does not describe its figures as being drawn to scale, and it
3 does not define its figures as showing the dimensions or the sizes of the
4 features that Apple relies on. Yet, Apple relies on these figures as showing
5 the relative sizes of the alleged opening in the alleged detection surface area,
6 and therefore Apple's ground is legally incorrect and fails.

7 But second, even if Apple could rely on the figures of
8 Abdul-Hafiz, their ground is legally incorrect because Abdul-Hafiz does not
9 disclose that it's alleged that the asserted opening or window is smaller than
10 the detection surface area. So, Apple would have to show a width of the
11 detection surface area, but Abdul-Hafiz never discloses the width and
12 therefore doesn't show any detection surface area, much less how the area of
13 the aperture, the alleged opening, compares to the detection surface area.
14 So, in the Petition, Apple, tried to rely on Figures 3 and 6 of Abdul-Hafiz as
15 disclosing the detector's width, but the width is not apparent in those figures
16 at all. It is only one dimension, which they called the length. So, what
17 Apple did is simply assume, to try to avoid this entire issue. Apple tried to
18 assume that the detector, or the detection surface area would just be a square,
19 but Masimo showed, and the Board agreed that the shape of the detector and
20 the detection surface area is simply not disclosed in Abdul-Hafiz.

21 So, now on reply, what Apple does, if we turn to their Slide 40,
22 and as Your Honor correctly pointed out, what Apple has done is assume
23 both the shape and the size of the detection surface area by just drawing that
24 limitation into Abdul-Hafiz's figure as this red box, but there's no basis for
25 doing so. And Apple's embellishment of Abdul-Hafiz's figure shows that
26 Abdul-Hafiz has not disclosed the shape or size of its detection surface area,

1 much less how that area compares to the size of its aperture.

2 JUDGE FINAMORE: Counsel, what about Petitioner's position
3 here today, that we can discern both the length and the width of the detector
4 from Figure 8A?

5 MR. WENTZEL: Well, that's a new position, Your Honor. I don't
6 believe Petitioner has ever relied on Figure 8A or 8B, but regardless, I can
7 confidently say that none of Abdul-Hafiz's figures ever disclose the size of
8 the aperture relative to the detection surface area, it's simply completely
9 missing from all of the figures, and hence, the assumption is drawing the
10 feature into the limitation -- into the figures, I mean. And because this
11 feature is missing, the Board correctly already found that Apple's ground
12 fails because both the shape and dimensions of photodiode chip 821 and
13 detector 820 remain unclear from Abdul-Hafiz's disclosure, and that's
14 exactly right. And Apple presents no reason to depart from that well-
15 reasoned finding. On reply, Apple doesn't even mention this precedent or
16 the Board's decision. Instead, what Apple did two days ago, was file a 160-
17 page request for *ex parte* re-examination, challenging the same claims of the
18 '911 Patent challenged here, based on the same and substantially similar
19 prior art. So, because this smaller opening or window limitation is not
20 disclosed by Abdul-Hafiz, Apple fails to show obviousness for most claims
21 as the Board already found.

22 So, on reply, rather than respond to Masimo's argument or the
23 Board's finding, as you heard in Apple's presentation, they're focusing on
24 comparing the disclosure of Abdul-Hafiz to the written description support
25 in the '911 Patent, but that comparison argument fails for a number of
26 reasons.

1 The first is that the comparison is the wrong analysis. Written
2 description support for the '911 Patent's claims is not at issue here. This is
3 an IPR, where Apple alleges obviousness, and obviousness does not
4 consider whether the prior art discloses -- it doesn't compare the disclosure
5 of the prior art to the disclosure of the challenged patent. Obviousness is a
6 comparison of the prior art's disclosure to the challenged patent's claims, and
7 for this reason, the Board has rejected similar comparison arguments in other
8 IPRs.

9 Further, Apple's comparison argument is based on a patent
10 prosecution case called in *In re Epstein*, which was a case where, kind of
11 considering whether the examiner could compare the disclosure of the
12 pending application to the disclosure of the prior art and evaluating
13 enablement of the prior art, but *Epstein* is completely inapplicable here.
14 Unlike patent prosecution, where an examiner can raise Section 112, written
15 description support rejections and any other rejections, Apple cannot
16 challenge the '911 Patent claims written description support here.

17 And, additionally, the situation was just completely different in
18 *Epstein* because there, the examiner was considering using the disclosure
19 comparison to assess enablement of a limitation that was undisputedly not
20 disclosed, and that's not the case here. Apple's trying to use its disclosure
21 comparison to manufacture a limitation, which the Board already found
22 Abdul-Hafiz does not disclose.

23 And lastly, Apple's comparison is doing the wrong analysis.
24 Wrong analysis is an incorrect analysis because it compares against the '911
25 Patent. It's using the '911 Patent in an attempt to support its obviousness
26 theory, which is hindsight.

1 Turning to Slide 11, Apple's comparison argument is also factually
2 incorrect because Apple ignores that the '911 Patent discloses information
3 about the relative size of its detection -- it's opening in detection surface area
4 that Abdul-Hafiz just does not.

5 So, on the left here, we see Figure 24 of the '911 Patent, which has
6 the -- as you can see on the left, the detection surface area, the whole surface
7 area of detector 2410 because that's the same size as the grid 2444 to which
8 it's applied. And on the right here, we have Figure 46, and I'll turn to Apple
9 Slide 9, just to show you the whole picture of Figure 46. And Figure 46 is a
10 view of all of the components of the sensor, which Masimo's expert has
11 explained as showing relative to scale because this shows how the sensor
12 goes together. It shows how all of the components are sized such that they
13 would be put together and make this exemplary sensor.

14 And if we zoom in on the relevant portion of Figure 46, on the
15 right, we can see that the exemplary opening or window of light block 3210
16 is smaller than the area of the grid in the detector assembly 2400, and
17 therefore the opening or window is likewise smaller than the detection
18 surface area that's commensurate with that grid. And unlike the '911 Patent,
19 Abdul-Hafiz never discloses the size of its aperture relative to its detection
20 surface area.

21 And on reply, Apple's arguing that the EMI shield of Abdul-Hafiz
22 is the same size as the detector, quote, "just like '911 Patent Figure 46,"
23 unquote. And of course, they cite nothing to support that assertion because
24 there is no support. The '911 Patent is not like Abdul-Hafiz.

25 JUDGE FINAMORE: So, Counsel, I had a question for you. It
26 looks like based on your annotated figures here, that we are excluding the

1 portions of the detector that are covered by the EMI grid from the detection
2 surface area. And I believe that was Patent Owner's construction in its
3 Patent Owner's Response, in particular, on page 31. Is Patent Owner now
4 conceding that argument, that claimed construction?

5 MR. WENTZEL: I don't think we've really made an affirmative --
6 like claim construction argument on what the detection surface area is. It
7 really is the area that the detector's capable of receiving light. So, that's
8 consistent with every position we've taken.

9 JUDGE FINAMORE: Okay. So, if I understand you correctly
10 then, there's really no dispute here. It sounds like both Patent Owner and
11 Petitioner agree that the detection surface area is essentially the upper
12 surface of the detector. Is that correct?

13 MR. WENTZEL: I think that's right.

14 JUDGE FINAMORE: Thank you.

15 MR. WENTZEL: Apple's comparison argument is also incorrect,
16 factually, for another reason, which is that -- so, Apple argues, and you
17 heard them argue in their opening presentation, they argued that the
18 detection surface area must be larger than the aperture, otherwise the
19 boundaries of the detector would somehow be visible in Figure 11B. But
20 that just ignores Abdul-Hafiz's disclosure completely because it ignores all
21 of the opaque materials that are surrounding and hiding --

22 JUDGE MARSCHALL: (CROSSTALK) --

23 MR. WENTZEL: -- it ignores all of the --

24 JUDGE MARSCHALL: (CROSSTALK) --

25 MR. WENTZEL: -- Apple's expert testified that the boundaries of
26 the detector are not visible in Figure 11B for this reason because they're

1 hidden by opaque material. The EMI shield of 1005 and the material of
2 optical housing 400 are both made of opaque material and therefore you
3 can't see what's behind them in Figure 11B. So therefore, if the detection
4 surface area was sized, as shown in the dotted blue box here, Figure 11B
5 would look exactly the same. Figure 11B would look exactly the same if the
6 detection surface area was much skinnier, exactly the same if the detection
7 surface -- or not much skinnier, but much wider or much taller or a large
8 circle or a different shape.

9 We simply cannot tell what the size and shape of the detection
10 surface area is in Figure 11B because it's obscured by opaque material. And
11 therefore, as the Board already found, the detection surface area is not
12 disclosed in -- the shape and size of it's not disclosed in Abdul-Hafiz.

13 And just to be clear, Your Honor, about the position on the
14 detection surface area, it's the area of the detector that can receive light, not
15 necessarily the upper side of the detector. It's the side that detects light.

16 JUDGE FINAMORE: Okay. So, just to make sure I'm following,
17 that would be the four blue squares in your annotated Figure 11B on the
18 slide?

19 MR. WENTZEL: Yes.

20 JUDGE FINAMORE: Okay. Well, then, I guess, the question for
21 me then becomes: how do we rectify what appears to be conflicting
22 testimony by Dr. Madisetti? It looks like, in this proceeding, in, I think it's
23 paragraph 87 of his Declaration, he said essentially what you just did, that
24 the detection surface area is the part of the detector surface that receives
25 light.

26 MR. WENTZEL: Right.

1 JUDGE FINAMORE: But in another proceeding, I believe in his
2 Expert Rebuttal Declaration, he said somewhat the opposite, which is what
3 we were talking about before, that it's essentially the upper surface of the
4 detector.

5 MR. WENTZEL: Right.

6 JUDGE FINAMORE: So, how do I reconcile those two
7 conflicting statements by your declarant?

8 MR. WENTZEL: Sure, and I understand Your Honor's question.
9 Dr. Madisetti was just addressing two different structures. When he opined
10 that the detection service area was essentially the entire area of the light-
11 detecting side of the detector, he was looking at the '911 Patent, where
12 nothing is blocking the entire area of the light-detecting side of the detector
13 from receiving light. He wasn't looking at Abdul-Hafiz because this was
14 long -- this was before this IPR had ever happened.

15 In response to this IPR, he explained that in Abdul-Hafiz, the
16 opaque EMI shield is applied directly to the detector so light can only reach
17 these four small areas, it can't be received anywhere else. So, in
18 Abdul-Hafiz, the detection surface area is smaller due to the presence of the
19 opaque EMI shield that blocks all the other areas. In both instances, his
20 position is the same. It's consistent in that it's -- the detection surface area is
21 the area that's capable of receiving light.

22 JUDGE FINAMORE: You had mentioned that Dr. Madisetti was
23 looking at a reference that didn't have an EMI shield that blocked the
24 detection surface area. Can you advise us what reference he was looking at?

25 MR. WENTZEL: Sorry, Your Honor. It was a claim construction
26 issue. He was looking at the '911 Patent. He was talking about --

1 JUDGE FINAMORE: Doesn't -- I'm sorry, go ahead.

2 MR. WENTZEL: He was talking about the '911 Patent, where
3 there is nothing blocking the full area of the detector from receiving light.

4 JUDGE FINAMORE: I'm sorry. But if you go to your Slide 11,
5 isn't there an EMI field that blocks a portion of the detector surface?

6 MR. WENTZEL: No, Your Honor. It's described as a mesh grid.
7 It's like a screen and a window, it allows light to pass through its entire area,
8 and this area is the same size as the detector as you can see on the left here.
9 So, there's no prohibiting of the surface area of the detector from receiving
10 light, which is very much different than Abdul-Hafiz, which has kind of an
11 opaque plate with four holes in it and it's applied directly to the detector and
12 keeps it from receiving light except in the four small areas.

13 JUDGE FINAMORE: Thank you.

14 MR. WENTZEL: So, based with the Board's finding that
15 Abdul-Hafiz has not disclosed the smaller opening or window limitation, on
16 or by, Apple presents a new modification theory. Apple is now arguing that
17 it would be desirable to make Abdul-Hafiz's aperture smaller. But we heard
18 Apple's justification in its presentation for why it's proposing to do that.
19 And actually, I'll get to that in a minute.

20 The point I wanted to make here is that this new modification
21 theory on reply is just not in Apple's Petition. The Petitioner argues only
22 that Abdul-Hafiz already teaches this limitation, and therefore Masimo's
23 Patent Owner Response likewise we when addressed Abdul-Hafiz's
24 disclosure, there's no proposed modification in the Petition to address, and
25 therefore the Board's Institution Decision didn't address it either because it's
26 not in the Petition. So, therefore, the Board should not consider this new

1 modification theory on reply, and that conclusion is amply supported by
2 Rule 42.23(b) in the Federal Circuit's precedent in the *Yita* and *Intelligent*
3 *Bio-Systems* cases.

4 And we think that *Yita* is particularly instructive here because it's
5 exactly what Apple's doing in this IPR.

6 In *Yita*, the Federal Circuit specifically held that arguing about
7 modifying the prior art on reply is meaningfully distinct from a Petition that
8 focuses, quote, "only on what the prior art discloses," unquote, and that's
9 exactly what Apple's doing here. Their modification theory to make
10 Abdul-Hafiz's aperture smaller on reply, is meaningfully distinct from the
11 Petition, which argues only that Abdul-Hafiz discloses the small area
12 opening limitation, and therefore the Board should not consider Apple's new
13 theory on reply.

14 But even if --

15 JUDGE MARSCHALL: Yeah, if I could just step in. If they
16 were just saying that the reference discloses the limitation, what does the
17 reference to obviousness mean in the Petition, in your view, other than, if it
18 is missing, you can modify it because it would have been obvious?

19 MR. WENTZEL: Well, they never included the word
20 modification, and they never explained what they were proposing. They
21 repeatedly said that Abdul-Hafiz already, quote, unquote, "has the smaller
22 opening." It already, quote, unquote, "prevents the problematic light" that
23 they're now talking about. So, they were just pointing to the feature and
24 saying it's either disclosed or obvious based on the disclosure, but no
25 modification is ever proposed.

26 JUDGE MARSCHALL: And getting back to your -- you talked

1 about mesh in the '911 Patent. I'm curious what the purpose of the mesh is?

2 MR. WENTZEL: The mesh is able to block electromagnetic
3 interference without blocking light because it's made of metal.

4 JUDGE MARSCHALL: I guess, based on a gut level, if you have
5 a metal mesh over a detector, isn't that going to block some light, even if it's
6 minimal?

7 MR. WENTZEL: I would look at it as, like, a screen in a window,
8 it's not really blocking light from reaching what's on the other side. Unlike
9 an opaque plate with four tiny holes in it, like Abdul-Hafiz, it's a mesh
10 created like a screen in a window. It's not really meant to block -- well, I
11 mean, it doesn't block light. (CROSSTALK) --

12 JUDGE MARSCHALL: It seems like both would block light.
13 Wouldn't both block light in a screen or something with more opaque, wider
14 panes on the mesh? Wouldn't they both block light to some extent? It's just
15 the matter of extent to which they block light?

16 MR. WENTZEL: I think it's -- I think they're very different.
17 Because something like Abdul-Hafiz, which is, like, a plate with four small
18 openings, confines the light into four, small, discreet areas, whereas a mesh
19 doesn't confine the light to discreet areas, it still allows the light to pass to
20 reach the intended area. If there's some significant blocking of light along
21 the way, it's not clear, it's just the mesh is designed to allow light to reach the
22 detector.

23 JUDGE MARSCHALL: I also had a question on the mesh. Is the
24 mesh in Figure 24, Element 2444?

25 MR. WENTZEL: Yes, that's correct.

26 JUDGE MARSCHALL: Okay. Because the patent at column 13,

1 line 54, identifies Element 2444 as an EMI shield grid.

2 MR. WENTZEL: Right. Sorry, it's an EMI shield grid that -- it's
3 shown as a mesh as EMI shields commonly are.

4 JUDGE MARSCHALL: Okay. Can you further explain how
5 that's different from the EMI shield in the prior art?

6 MR. WENTZEL: Yeah, it's not a structural opaque plate designed
7 to block light, it's actually designed to not block light and to allow the light
8 to pass through what's underneath, in this case, the detector. The prior art's
9 EMI shield is an opaque plate that confines light to four small areas.

10 I think I'll also be getting to this in a couple minutes. I can turn to
11 this now if Your Honor still has questions.

12 JUDGE MARSCHALL: No, go ahead.

13 MR. WENTZEL: Okay. So, even if the Board considers Apple's
14 new modification theory on reply, it fails for multiple reasons. So, Apple's
15 saying -- Apple's now arguing that blocking problematic light at a large
16 angle of incidence would have motivated making Abdul-Hafiz's aperture
17 smaller. But Apple's ignoring the testimony of its expert, who explained that
18 Abdul-Hafiz's existing optical housing design already blocks all of that light.
19 And in the Petition, Apple argues that Abdul-Hafiz's existing optical housing
20 design, quote, unquote, "prevents this problematic light of a large angle of
21 incidence from reaching the detector."

22 And if we look at Apple Slide 19, which is a figure from the
23 Petition, you can see that Apple even uses red arrows to show that the
24 existing optical housing design already blocks the piped or ambient light that
25 it's now proposing to modify Abdul-Hafiz to block. But because
26 Abdul-Hafiz already blocks that light, a desire to block problematic light

1 would not motivate in making Abdul-Hafiz's aperture smaller as
2 Abdul-Hafiz already blocks that light.

3 Additionally, the second point I'd like to make is, that Abdul-Hafiz
4 has an EMI shield in its aperture. Apple admits this on reply, and
5 Abdul-Hafiz discloses that within the aperture is the EMI shield that we just
6 discussed, and there's no dispute that the EMI shield controls the angled
7 incident light that's able to reach the detector, and the EMI shield being
8 opaque itself would further block problematic light from reaching the
9 detector. So, this is another reason why a desire to block problematic light
10 would not have motivated making Abdul-Hafiz's aperture smaller.

11 Apple's presentation also emphasized, I believe it's their Slides 38
12 and 39, that Abdul-Hafiz discloses a spacer as a technique to reduce
13 problematic light by making the detector farther away from the tissue
14 surface. Apple never explains why the POSITA would have wanted to
15 further block problematic light from reaching the detector in Abdul-Hafiz,
16 given the optical housing and the EMI shield. But Apple certainly never
17 explains why a person of skill in the art would have done so by making
18 Abdul-Hafiz's aperture smaller as opposed to using the spacer that
19 Abdul-Hafiz actually describes.

20 Third, Apple relies on some tertiary references on reply, which are
21 now part of its grounds, but none of those references discloses an opening or
22 a window smaller than the detection surface area.

23 Webster merely mentions, quote, "helpful LED/photodiode
24 replacement," unquote. Schultz is a reference that mentions that "a window
25 may be sized as needed," unquote, whatever that means. And Kimura has a
26 reference that merely mentions adjusting one dimension of a window. But,

1 again, none of these references are drawn to scale, and none show an
2 opening or window smaller than the detection surface area. And therefore,
3 none of these (CROSSTALK) --

4 JUDGE FINAMORE: Counsel?

5 MR. WENTZEL: Sure.

6 JUDGE FINAMORE: Hi, Judge Finamore. With regard to
7 Apple's tertiary references, it's my understanding that Petitioner is not
8 relying on these references to teach a smaller opening, but instead merely to
9 corroborate the alleged motivation to modify --

10 MR. WENTZEL: Right.

11 JUDGE FINAMORE: -- Abdul-Hafiz.

12 MR. WENTZEL: But none of them have this smaller opening or
13 window -- an opening or window smaller than the detection surface area so
14 how could they possibly teach making Abdul-Hafiz's aperture smaller than
15 its detection surface area to block light? They don't support Apple's
16 motivation theory, which was the very next thing I was going to say.

17 JUDGE FINAMORE: Thank you.

18 MR. WENTZEL: Because none of the references we've seen have
19 the smaller opening or window limitation. Another point made clear in
20 Apple's presentation is, that the basis for its new modification theory is,
21 quote, "to satisfy this feature," unquote, of the claims. They're trying to
22 modify Abdul-Hafiz, however needed, to reach the claims, and I can't think
23 of a clearer example of hindsight than that.

24 Fourth, Apple assumes that it's proposed modification in
25 Abdul-Hafiz's aperture would be simple so that they could make the attorney
26 argument that, quote, "the reasonable expectation of success is implicit,"

1 unquote. But the Federal Circuit, in cases like *Juniper Networks*, which
2 Masimo cited in its briefing, has explained that mere simplicity is not
3 enough to show a reasonable expectation of success, and therefore Apple
4 fails to show a reasonable expectation of success.

5 And one last point on this that I would just like to make is, that
6 Apple relies on Abdul-Hafiz as disclosing the smaller opening or window
7 limitation, but as the Board found, it does not. So, under the Federal
8 Circuit's precedent, in cases like (INDISCERNIBLE) *Pharmaceuticals*,
9 which is cited in Masimo's briefing, Apple fails to show obviousness, and
10 the Board may not even consider motivation to combine and expectation of
11 success.

12 So, therefore turning to Slide 17, Apple fails to show obviousness
13 of those claims because Abdul-Hafiz does not disclose the smaller window
14 opening limitation, and there is no motivation to make Abdul-Hafiz's
15 aperture smaller than the detection surface area.

16 Now, turning to Slide 18, Apple's ground also fails for those claims
17 because its prior art, Abdul-Hafiz, does not have a light block with only
18 opening.

19 If you look at Slide 19, in the Petition, Apple relies on
20 Abdul-Hafiz's optical housing 400, with its aperture of 470 as disclosing the
21 light block with only one opening that these claims require. But on reply,
22 page 8, Apple now asserts, quote, "Figure 11B shows that Abdul-Hafiz's
23 aperture 470, includes a fixed EMI shield 1005," unquote, and that EMI is
24 shown here in red, and Dr. Madisetti, Masimo's expert, and Apple's expert
25 both testified that the EMI shield is made of opaque material that would
26 block light from reaching the detector, other than through these four

1 openings, which are shown in blue.

2 So, under Apple's argument that the aperture includes the EMI
3 shield with the four openings, the alleged opening of Abdul-Hafiz, that the
4 alleged light block actually has four openings, not one, like the claims
5 require.

6 So, unable to -- turning to Slide 20, unable to rebut Masimo's
7 argument, Apple, again, on reply, turns to its written description comparison
8 argument, comparing the disclosure of Abdul-Hafiz to the written
9 description support in the '911 Patent. That analysis fails again for many
10 reasons. The first, being that it's the wrong analysis for the reasons I
11 explained earlier. It's also factually incorrect. Apple argues on reply that
12 Abul-Hafiz's EMI shield is the same or similar as the mesh EMI shield or
13 grid 2444 in the '911 Patent, but as you can see here, that's just not true.

14 On the left, in Abdul-Hafiz, we see that the EMI shield allows light
15 to pass -- allows light to reach the detector for four discreet areas, shown in
16 blue. But that's different from the '911 Patent, which has this mesh grid
17 we've already discussed, that allows light to reach the detector through its
18 entire area, like a screen, and that's from Figure 24 of the '911 Patent. So,
19 again, Apple fails to show obviousness for those claims because under
20 Apple's argument that the aperture includes the EMI shield, the alleged light
21 block actually has four openings, not only one.

22 Apple also fails to show obviousness for all claims because the
23 prior art does not enable what Apple relies on for obviousness. The Federal
24 Circuit held in *Raytheon* that the prior art must enable the specific disclosure
25 being relied on for obviousness. So, Masimo showed that the prior art does
26 not enable the Raley disclosure that Apple relies on. All claims challenged

1 by Apple require at least three LEDs of at least three different wavelengths,
2 and to satisfy those limitations, Apple relies on Raley as disclosing four
3 emitters with different wavelengths for measuring three or four blood
4 analytes, such as oxyhemoglobin, deoxyhemoglobin, carboxyhemoglobin,
5 and methemoglobin, as well as oxygen saturation, and at least
6 carboxyhemoglobin and methemoglobin, and oxygen saturation are central
7 to all of Apple's obviousness theories.

8 But the prior art did not enable measuring these analytes with only
9 four wavelengths of light. Raley speculates that it's possible, or would be
10 useful, if such a measurement were possible with only four wavelengths.
11 Jarman is a reference from the same source as Raley that includes just the
12 same speculation.

13 Apple identifies some other references, like Webster, to argue that
14 measuring the analytes as identified with only four wavelengths would be,
15 quote, "a standard Algebra problem," unquote, but not a lot of Apple's other
16 references did this either. And as Dr. -- and by "did this either," I mean,
17 measured the analytes that Apple identifies with only four wavelengths of
18 light.

19 And Masimo's expert, Dr. Madisetti, explained that no one has
20 ever done what Apple proposes, measuring these analytes with four
21 wavelengths, not at the time of the '911 Patent or in the 20 years since, so it
22 could not have been obvious at the time. Only Masimo has been able to
23 measure the analytes that Apple identifies, including carboxy and
24 methemoglobin, non-invasively, and Masimo needed eight wavelengths, not
25 four, to do so.

26 JUDGE FINAMORE: Counsel, you are over time, but I appreciate

1 that Petitioner went a few minutes over time, so I'm happy to let you
2 continue for another minute or two. And I'd like you to use that extra time
3 to answer a question I have about this argument about enablement.

4 MR. WETZLER: Okay.

5 JUDGE FINAMORE: So, I appreciate that prior art disclosures do
6 have to be enabled, but none of the claims recite detecting oxyhemoglobin or
7 deoxyhemoglobin and the like. I understand that the disclosure here is just
8 the four LEDs and four wavelengths. So, I guess my question is, to what
9 extent do we need to consider this teaching of detecting these additional
10 blood analytes from an enablement perspective if they're not recited in the
11 claim and if Petitioner's not relying on a disclosure to meet the claim?

12 MR. WETZLER: Apple is still relying on Raley's disclosure for
13 measuring carboxy and methemoglobin for obviousness as the reason that
14 you would combine these things. So, it still needs to be -- their real
15 combination still has to be enabled in view of precedent, like *Raytheon*. And
16 also, there's no question that, separately from enablement, Apple has to show
17 a reasonable expectation of success. And what it proposes doing -- and
18 Apple proposes to modify Abdul-Hafiz in these ways to measure these
19 (INDISCERNIBLE). So, they'd have to show a reasonable expectation of
20 success that its combination could achieve these things. And the same
21 evidence showing a lack of enablement shows no expectation of success
22 because these measurements weren't done at the time of the '911 Patent and
23 never have been, with only four wavelengths of light that Apple proposes.

24 JUDGE FINAMORE: I agree with you that Petitioner's relying on
25 detecting these analytes for the motivation to combine. I'm not sure how
26 that ties to enablement because that's a motivation combine and not a

1 disclosure. But my question to you is then, even if Raley discloses these
2 somewhat in an aspirational sense, isn't it sufficient enough if we apply an
3 obvious-to-try rationale?

4 MR. WENTZEL: Sorry, obvious-to-try what?
5 (INDISCERNIBLE).

6 JUDGE FINAMORE: Isn't Raley's disclosure of using four
7 emitters to detect four different analytes, wouldn't that, at the very least, be a
8 motivation to combine if we apply an obvious-to-try rationale?

9 MR. WENTZEL: Yeah, I don't see how it could be obvious to try
10 that --

11 JUDGE FINAMORE: Okay.

12 MR. WENTZEL: -- when it still hasn't been done to this day. And
13 I think we've just passed 20 years since the '911 Patent, the date of the '911
14 Patent. I fail to see how it could be obvious to try it at that time. Also,
15 there's a lot -- this is very complicated technology of these analytes. So,
16 Masimo had to use eight wavelengths, not four. There are so many different
17 solutions. I fail to see how it would be obvious to try. Regardless, again,
18 there was no expectation of success at the time of '911 Patent, or even today,
19 it still hasn't been done, what they're proposing.

20 JUDGE FINAMORE: Thank you. If you want to take a few
21 seconds to wrap up, please feel free.

22 MR. WENTZEL: Sure. So, the same evidence of non-enablement
23 shows a lack of reasonable expectation of success in combining with Raley's
24 LEDs to measure these other parameters.

25 And I'll just turn to Ground 1B. And my point here is just that
26 Apple fails to show obviousness for these nine dependent claims, which

1 require at least eight or twelve LEDs and at least three different
2 wavelengths. And the reason is, none of Apple's references have the
3 requisite amount of LEDs or wavelengths. Abdul-Hafiz and Secker have
4 only two wavelengths. Raley has four wavelengths but only four LEDs.
5 And because none of the references teach this limitation, Apple fails to show
6 obviousness, and the analysis can end there.

7 So, with that, I'll save the rest of my time for a rebuttal, unless
8 Your Honor has any more questions.

9 JUDGE MARSCHALL: I think we're all set. Thank you.

10 MR. WENTZEL: Thank you.

11 JUDGE MARSCHALL: Petitioner, you can start whenever you're
12 ready. We'll give you eight minutes.

13 MR. DEVOTO: Okay. Thank you, Your Honors. You can think
14 of Patent Owner's arguments as divided up into three distinct categories,
15 Your Honors. The first category includes arguments that Abdul-Hafiz's low
16 noise optical housing does not satisfy the light-block-related features,
17 specifically, the only one opening and surface area relationship features.

18 These arguments, Your Honors, are simply not credible as they are
19 based on claim constructions that are inconsistent with the underlying
20 Specification. These arguments are also not credible because Abdul-Hafiz
21 satisfies these features based on relative dimensions shown in its figures that
22 are at least as good as the '911 Patent's figure's support for these features.

23 And I point you to Figures 10B and 10C of Abdul-Hafiz that show
24 that the edge of the light-detecting side of the detector, that is that surface
25 area of the light-detecting side of the detector, is co-extensive from even
26 those Figures 10B and 10C with an EMI shield.

1 I would also point you to Figures 8A and 8B that again show that
2 that EMI shield is co-extensive with the light-detecting side of the detector
3 820. And moreover, we have something in the figures of Abdul-Hafiz that's
4 simply nowhere found in the '911 Patent figures to give us confidence that
5 we can use those figures for relative dimensions, and that's shown in the
6 scales that are shown in Figures 11B, 11D, and 11E of Abdul-Hafiz where
7 we see them actually drawing lines to tell us dimension sizes in these figures
8 telling us that yes, we can use these figures for showing dimensions sizes.

9 So, in that sense, we submit to you that Abdul-Hafiz, in fact, does
10 satisfy the recited surface area relationship. And, moreover, we submitted a
11 clear obviousness ground in our Petition, where we said it would have been
12 obvious -- to the extent you think that the aperture of Abdul-Hafiz does not
13 satisfy the recited surface area relationship, it would have been obvious to
14 limit the aperture and hence change it by limiting it to thereby satisfy the
15 recited surface area feature. And why would you do that? Why would you
16 decrease the aperture, i.e., limit it to satisfy the recited surface area detection
17 feature? Well, you would to it to decrease ambient and piped light noise,
18 which frankly, you can see from simple, basic, high school geometry, okay?
19 And this was corroborated by our Kimura reference. We included other
20 references. But I encourage you to take a look at the Kimura reference,
21 which illustrates this same principle.

22 Now, the Patent Owner would argue, yeah, but it doesn't show the
23 other dimension. That's irrelevant. The point is, is when you decrease the
24 dimension, the end rays that reach the detecting surface have to be made
25 more vertical, and that would apply regardless of which dimension you're
26 decreasing. So, for that reason, these arguments advanced against

1 Abdul-Hafiz satisfying the light-block-related features are simply not
2 credible.

3 Now, the second category of arguments advanced by the Patent
4 Owner about Raley's teachings would not have led a POSITA to modify
5 Abdul-Hafiz's sensor to arrive at this recited, at least three LEDs emitter
6 feature, is simply not credible, because first of all, Abdul-Hafiz and Raley do
7 not teach away from the combination. On the contrary, the main advantages
8 taught by each of Abdul-Hafiz and Raley are preserved in the combination
9 for the use of Abdul-Hafiz's low noise optical housing that is relatively easy
10 to manufacture and the combined sensor through the use of Raley's universal
11 probe-end connector structure that is compatible with many different type of
12 monitors, and the combined sensor, and through use of Raley's emitter
13 structure that enables monitoring of more blood analytes than that offered by
14 Abdul-Hafiz.

15 Now, the third and final set of arguments, or category of arguments
16 advanced by the Patent Owner, includes arguments that Raley's disclosures
17 are not enabled. But these arguments, like the rest of the Patent Owner's
18 arguments, frankly, Your Honors, are not credible as they have not -- they've
19 failed to provide evidence into the record, the evidentiary record of this
20 proceeding, required by the Federal Circuit, to show non-enablement,
21 including the *Wands* case, for example.

22 So, for example, the Patent Owner has failed to provide any
23 evidence that speaks to the amount of experimentation that it would be
24 deemed reasonable for a POSITA to engage in, given the guidance of
25 Raley's teachings combined with the background knowledge of a POSITA
26 and therefore have failed to provide evidence that speaks to undue

1 experimentation.

2 Instead, the Patent Owner is largely relying on conclusory
3 assertions related to commercial products that are premised on the incorrect
4 and legally unsupported belief that a patent issued to a company is by default
5 not enabled unless that company was the first to commercialize a product
6 that uses that patented technology.

7 Now, Your Honors, when you look at the evidentiary record in this
8 proceeding, it overwhelmingly supports the conclusion that Raley's
9 disclosure is enabled because the record includes three distinct patents, Your
10 Honors: the Jarman Patent, the Aoyagi Patent, and the Kuenster Patent,
11 which were filed eight to ten years before the '911 Patent, and it describes
12 sensors that use three or more LEDs of different wavelengths to measure
13 more blood analytes or to measure the same blood analytes as a conventional
14 pulse oximetry but to measure them more accurately. Therefore, Your
15 Honors, to assert that Raley is not enabled is to also assert that these other
16 patents are not enabled, which frankly is absurd.

17 Now, in the end, also, Your Honors, the examiner, himself, during
18 original prosecution, in his reasons for allowance, maintained that this
19 purportedly innovative light detector structure written so broadly, I mean, it's
20 just at least three LEDs configured to emit light of at least three different
21 wavelengths, was not new. Because in his reasons for allowance, he again
22 said, no, no, that's not new. That would have been known in view of Schulz
23 as modified based on Thomas, which would therefore arrive at this at least
24 three LED configure to emit light of at least three different wavelengths in
25 order to increase the number of physiological parameters that can be
26 monitored, such as blood analytes. And this combination is very similar in

1 many respects to the combination we're advancing, where we're taking a
2 two-LED sensor, Abdul-Hafiz, we're modifying it based on Raley to
3 increase a number of LEDs, thereby satisfying the at least three LEDs
4 feature, and we're doing it for largely the same reason, to increase the
5 number of physiological parameters, in this case, blood analytes that can be
6 monitored.

7 So, with this reason, the evidentiary record overwhelmingly
8 supports Raley's enablement, so these arguments are simply not credible.
9 Now, regarding the arguments --

10 JUDGE FINAMORE: Counsel, just to --

11 MR. DEVOTO: Yep.

12 JUDGE FINAMORE: -- sorry, just a housekeeping issue.

13 MR. DEVOTO: Yeah, sure.

14 JUDGE FINAMORE: You had mentioned the three patents before
15 really talked about using three wavelengths to measure blood analytes. I
16 didn't catch the names of those patents. Can you --

17 MR. DEVOTO: Sure.

18 JUDGE FINAMORE: -- can you rattle them off again, please?

19 MR. DEVOTO: Yeah, my apologies. I'm going quickly. I'm so
20 sorry. Given the time constraints, I get a little excited. Jarman, Aoyagi, and
21 Kuenster. Jarman, Aoyagi, and Kuenster are those patents, Your Honors.
22 And again (CROSSTALK) --

23 JUDGE FINAMORE: Are they mentioned in your -- are they
24 mentioned in your Reply?

25 MR. DEVOTO: Yes, we had mentioned those in our Reply, yep.
26 In fact, we mentioned them in our Petition, even. And we showed that

1 those -- that those patents depict multiple distinct wavelengths being used
2 of -- excuse me, multiple distinct LEDs of distinct wavelengths being used
3 to either improve the accuracy of measurements or to increase the number of
4 physiological parameters or blood analytes that can be detected or
5 monitored, which again, this is known. This notion of at least three LEDs
6 comprising of at least three different wavelengths, is not only known, it's
7 ancient.

8 And if you take a look at the '911 Patent, and you read its
9 disclosure, they give you a very detailed and intricate explanation of the
10 light emitter structure that purports to have its innovation, not in the fact that
11 there's just at least three LEDs with the three different wavelengths, but
12 rather that it has this very intricate grid of different LEDs that have different
13 wavelengths that are then positioned in a grid with equalization circuitry and
14 optical filtering down them, and it's only through this very esoteric-specific
15 structure that they were able to improve the accuracy of existing -- or they
16 claimed they were able to improve the accuracy of existing pulse oximetry
17 systems.

18 And frankly, the fact that none of that found its way into their
19 claims is because they're trying to broaden the scope of their claims to reach
20 the world as often Patent Owners do when they're trying to insert
21 infringement over the world, as Patent Owner is doing here, frankly. There's
22 nothing innovative about the light emitter structure of their claims. There's
23 nothing innovative about their light-blocking structure. Abdul-Hafiz clearly
24 shows that their attempt to argue to the contrary based on them grabbing
25 stuff from their Spec, that's not even supported. You can't say Abdul-Hafiz's
26 low noise optical housing doesn't satisfy the only one opening feature

1 because the EMI holes -- the EMI grid has holes. Your own patent has those
2 holes. You don't have support if you interpret it that way, you know?

3 And you also can't say it based on the plain meaning of the claim
4 language, right? And the surface area relationship the prior art -- does a
5 better job than your own patent regarding satisfying the surface area
6 relationship because we have reason -- lines, and scales, and spacings being
7 overlaid in our figures to tell you, yeah, these are spacings, you can count on
8 them, they're there, and your own patent does not have any of that, so.
9 (CROSSTALK) --

10 JUDGE MARSCHALL: Thank you very much. That's all right.
11 You're a couple minutes over, but that's fine.

12 MR. DEVOTO: Thank you. Thank you, Judge.

13 JUDGE MARSCHALL: Thank you for your time.

14 MR. DEVOTO: Yes, sir.

15 JUDGE MARSCHALL: We don't have any further questions, so
16 thank you.

17 MR. DEVOTO: Sure.

18 JUDGE MARSCHALL: And we will turn it back over to Patent
19 Owner's Counsel.

20 MR. DEVOTO: Thank you so much.

21 MR. WETZEL: Thank you, Your Honor.

22 JUDGE MARSCHALL: Sir, when ready, we also have eight
23 minutes on the clock for you, but if you want to go over, we'll allow it --

24 MR. WENTZEL: Okay.

25 JUDGE MARSCHALL: -- at least for a minute.

26 MR. WENTZEL: Noted, thank you. So, a few points, this

1 revelation that Figure 11 in Abdul-Hafiz somehow depicts dimensions, and
2 we can count on them. In addition to it being a new argument, the
3 dimensions Apple is talking about have nothing to do with the relevant
4 feature we're talking about here: the detection surface area. Apple's talking
5 about dimension lines to show that the emitter package can be farther away
6 or closer to the detector, which was just being described in the context of
7 explaining that Abdul-Hafiz's sensors could be used -- it's a sensor circuitry
8 that could be used for a sensor for an infant or a sensor for an adult, not
9 specific dimensions of any particular feature. And anyway, there's no
10 dimensions disclosed for the feature that Apple's trying to rely on, which is
11 the detection surface area, it's just not disclosed. And just because you
12 include some arrows, doesn't make it so.

13 With respect to Apple's modifications being in the Petition because
14 that -- we use the word obviousness, it's just not in the Petition, and that's
15 why no one ever addressed it prior to the institution stage because there was
16 nothing to respond to. Apple put in the word obvious in its Petition, did not
17 appraise anyone of the specific theory, it is now advancing on reply. And
18 certainly, including the word obvious in Apple's Petition, it was not
19 supported with any evidence of the motivation to modify Abdul-Hafiz's
20 aperture or any expectation of success as per the -- a proposed modification
21 would be successful. The words motivation, and modify, and expectation
22 are just not in the cited pages of the Petition, that's pages 50 to 51.

23 Apple mentioned that there's no teaching away from the
24 combination in Abdul-Hafiz's and Raley. That's not the standard, and it was
25 Apple's burden to show a motivation to combine and reasonable expectation
26 of success. And they can still fail to do so, regardless of whether there's a

1 teaching way or not, and they failed to do so here. Because a person of
2 ordinary skill would not have expected or been able to measure the analytes
3 Apple identifies with only four wavelengths of light, like Apple proposes.

4 I think Apple mentioned that they only had to show a motivation,
5 or there only had to be enablement of one additional analyte in addition to
6 oxygen saturation, but that's not their theory. At a minimum, their theories
7 require measuring oxygen saturation, carboxyhemoglobin, and
8 methemoglobin with four wavelengths of light, and that still has not been
9 done. So, regardless of whether it's three or four analytes, these analytes
10 Apple was talking about, in addition to oxygen saturation have not been
11 measured non-invasively other than by Masimo, and Masimo used eight
12 wavelengths not four to measure them.

13 Apple mentioned these other references, Aoyagi, for example. But
14 Aoyagi is a reference that added wavelengths to increase its accuracy, not to
15 measure an assortment of different analytes, so that was surprising to hear.
16 Also, Apple's reference to what the examiner stated in the single sentence
17 during prosecution is not really relevant here. Apple's not relying on those
18 references, and it's stuck with its arguments here, regardless, it has no
19 evidence of what combination was being proposed during prosecution or any
20 of that, a reason which just seems to be a sideshow. Also, Apple keeps
21 (CROSSTALK) --

22 JUDGE MARSCHALL: Excuse me. Yeah, could you address
23 Petitioner's argument that Figures 10B and 10C of Abdul-Hafiz, show that
24 the detector and the EMI shield are co-extensive? Because it appears like a
25 fairly strong argument that the EMI shield is not sticking out from the
26 detector and kind of blocking it as you depicted in Slide 12, I believe it was,

1 from your slide deck.

2 MR. WENTZEL: Give me one second. I mean, so, 10A and 10B,
3 you can't even see the side of the EMI shield that has the four openings.
4 You can't see the relationship of that side to the detector at all. It's on the --
5 it's on the far side.

6 JUDGE MARSCHALL: Sure. It just seems like the EMI shield
7 1010 is tightly wrapped around the detector 820, so that it's not as if the EMI
8 shield is sticking out any appreciable distance from the edge of the detector.
9 Of course, there's some dimension there, but in your markup of the later
10 figure, 11B, it sounded like your theory was, well, you're not seeing vertical
11 lines there in the opening because the EMI shield is quite a bit wider than the
12 detector in blocking it, and it seems like arguably 10A and 10B, undercut the
13 argument.

14 MR. WENTZEL: I don't see how we can discern how much wider
15 the EMI shield is than the detector because it goes from being uncovered in
16 10A and 10B to all of a sudden, it's covered in 10C, and we never get to see
17 how the EMI shield compares to the aperture.

18 JUDGE MARSCHALL: Okay. I understand your position, thank
19 you.

20 MR. WENTZEL: Just one last point, which was that Apple refers
21 to, "it's just high school geometry to make the aperture smaller to block
22 more light." But again, they failed to explain why you would block light by
23 suddenly making Abdul-Hafiz's aperture smaller rather than use a simple
24 spacer that Abdul-Hafiz already describes, which would simply make the
25 detector further away from the tissue so light of a more vertical angle, only,
26 can reach the detector, it's -- yeah, still have not explained that point. And I

1 think that's all I had.

2 JUDGE FINAMORE: Counsel, I just had one more question --
3 housekeeping question. Patent Owner made some arguments based on
4 Petitioner's claim constructions from a district court litigation. It's my
5 understanding that neither party is asserting those constructions in this
6 proceeding, but I just wanted to confirm that my understanding is correct or,
7 alternatively, is Patent Owner relying on those constructions?

8 MR. WENTZEL: No, Your Honor.

9 JUDGE FINAMORE: No, Patent Owner is not relying on those
10 constructions, or?

11 MR. WENTZEL: Correct, Patent Owner is not relying on those
12 constructions.

13 JUDGE FINAMORE: Okay. So, it is correct that neither party is
14 relying on the constructions from the district court litigation, correct?

15 MR. WENTZEL: That's correct, yes.

16 JUDGE FINAMORE: Okay. Thank you for clarifying.

17 JUDGE MARSCHALL: Okay. Thank you for your time. Thank
18 both sides for your time here today, and that adjourns this hearing. Anything
19 further?

20 MR. DEVOTO: Thank you, Your Honors.

21 MR. WENTZEL: Thank you, Your Honors.

22 JUDGE MARSCHALL: Thank you.

23 (Whereupon, the above-entitled matter went off the record at 4:59
24 p.m.)

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