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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner,

v.

MASIMO CORPORATION,

Patent Owner.

Case IPR2024-00290
U.S. Patent 8,190,223

**PATENT OWNER MASIMO CORPORATION'S
SUR-REPLY**

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2042	Declaration of R. James Duckworth, Ph.D. in Support of Patent Owner’s Response
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I. INTRODUCTION

None of Apple’s references, individually or in combination, disclose replacing the display of a measured value of one parameter with another measured value of another parameter within a common display area. Rather, Apple’s references teach multi-parameter displays that simultaneously show ***all*** measured values.

Apple’s Petition relied on one reference, Hochstedler, for the claimed “replaces,” “replaced” or “replacing.” Inst., 21 (explaining Petition “relie[d] on Hochstedler for the specific GUI changes that show replacement of one measured value of a parameter for another, ***not Naghavi*** or Burnes.”). But Hochstedler does not teach one measured value that is replaced by a measured value of another parameter. To fill the gap in Hochstedler’s disclosure, Apple did not turn to another reference. Instead, Apple annotated Hochstedler’s Figures 2, 9, and 13 to suggest that that Hochstedler teaches showing a numerical value for a parameter called “SvO2” in Figure 2, a numerical value for “CO” in Figure 9, and numerical values for “CO2” in Figure 13.

But Hochstelder explains that it switches screen layouts to show all measured values. Indeed, Apple does not dispute that when the Hochstedler system detects that a parameter is not displayed, Hochstedler changes its display layout to display that parameter with all other measured parameters. Hochstedler thus teaches adding missing parameters, not replacing one parameter for another.

Masimo’s POR explained why a POSITA would not have been motivated to combine Naghavi, Hochstedler, and Burnes, including because Hochstedler taught away from replacing a monitored parameter. In Reply, Apple had ***no response*** to Hochstedler’s teaching away. Apple also had no response to Masimo’s explanation of why there would have been no motivation to combine the three references. Thus, Masimo’s argument is unrebutted.

Apple’s Reply raises several arguments attempting to supply the missing limitation. First, Apple relies on Naghavi and argues that simply rearranging icons on a display constitutes replacing measured values. But rearranging is not replacing. And rearranging two displayed measured values could not satisfy the claims because the claims require the replacement to occur in a “common display area” shared by a “first display area” and “second display area.” Under Apple’s new rearrangement theory, two icons that are rearranged are in separate and non-overlapping display areas. Thus, there is no “common display area.” Apple never addresses that claim language under its new theory. And unsurprisingly, no expert opined that rearranging icons constitutes a replacement.

Second, Apple argues that Naghavi’s mention of showing “different types of icons and health objects according to different diseases and/or physical conditions” also shows a replacement. But it does not. The claims require measured values from two currently monitored parameters—the measured value being displayed, and the measured value that replaces it. Displaying different icons or objects based on

different diseases fails to disclose that a measured value of one parameter is replaced with the measured value of another parameter. Instead, Naghavi merely suggests that if a patient is admitted to a hospital for a flu, the monitor shows certain parameters relevant to a flu, and if a patient is admitted for smoke inhalation, the monitor shows different parameters relevant to smoke inhalation. That is not the claimed invention.

Finally, Apple argues that replacing a measured value was somehow well known. But none of Apple's Petition references suggest that. Instead, Apple relies on a new reference, Malmberg. But Apple never argues or explains anything about Malmberg. Apple merely cites to several pages of expert declaration that attempt to stitch together multiple distinct embodiments from Malmberg. This cannot show a concept is well-known. And Malmberg fails to disclose the claimed replacement because it discloses colored circles that are merely superimposed on one another. Thus, Malmberg does not replace any measured values.

II. MASIMO'S CONSTRUCTIONS ARE CORRECT

A. "Replace," "Replaced," "Replacing" **(Claims 1, 15, 18, 21, 27)**

Masimo explained that a POSITA would have understood that when a measured value of a first parameter is "replaced" by the measured value of a second parameter, the measured value of the first parameter is removed from display and the measured value of the second parameter is displayed in its place. POR, 17 (citing EX2042, ¶79). Apple agrees that when the first measured value is replaced by the

second, the first measured value is removed from the display area. Reply, 14 (arguing the claims “require merely that in the area where the first value is originally displayed, the first value is **removed** and the second value is displayed in its place.”).¹ But Apple argues that “replacing” the first measured value with the second somehow allows the first value to be moved elsewhere on the screen. But that would be rearranging, not “replacing.” Apple’s three arguments to the contrary fail.

1. The Surrounding Claim Language Supports Masimo’s Construction

Apple argues that construing “replace” to require removal from the display would render the “common display area” limitation in Claim 1 meaningless because that common display area could be less than the full display. But the common display area recited by Claim 1 explains **where** the replacement occurs. The first measured value appears in the common display area and gets replaced by the second measured value in the common display area. As the ’223 Patent explains, this allows a display with “insufficient space” to “cycle through two or more measured parameters in an area common to both parameters.” EX1001, 10:6-12. Nothing about this language requires “replacing” to mean that parameters can be merely rearranged.

¹ All emphases added unless noted otherwise.

Moreover, other claims do not contain the “common display area” language that Apple relies on. For example, Claim 27 recites “the display of the measured value of the first blood parameter is replaced by the measured value of the second blood parameter” in a “display capable of displaying a measured value of a first blood parameter ... or displaying a measured value of a second blood parameter.” Limitations [27c], [27a]. Claim 28 is similar but uses “changes from ... to” instead of “replaces.” These claims confirm that replacing means replacing on the display, and not merely rearranging on the display.

2. The Specification Supports Masimo’s Construction

Apple also argues the ’223 Patent specification discloses an example where parameters are rearranged and not fully removed. Reply, 5-6, 10-11. Specifically, Apple alleges that Figures 11B and 11C of the patent show an example where the values “1.2” and “3.25” are rearranged on a display, as shown below. *Id.*, 5-6, 10-11.

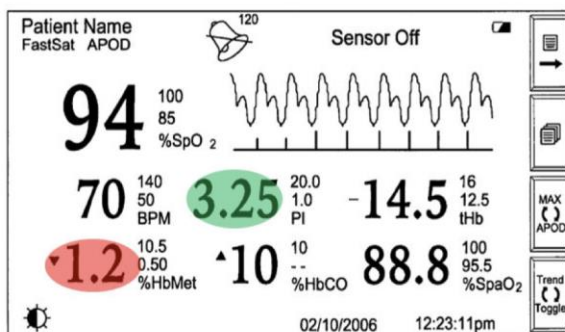


FIG. 11B

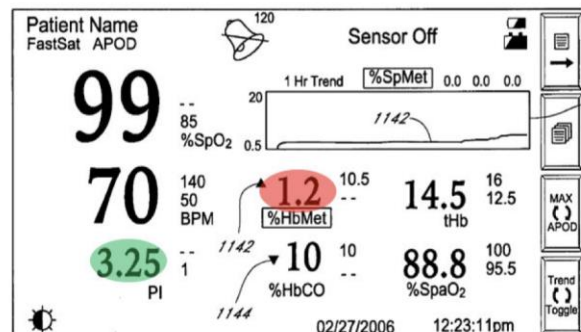


FIG. 11C

Reply, 10 (Apple’s annotations to EX1001, Figs. 11B-11C). Apple argues that Masimo’s construction is incorrect because it excludes this specification embodiment. *Id.*, 5-6. Apple’s arguments are wrong, legally and factually.

First, there is no requirement that a claim be construed to cover all disclosed embodiments. *TIP System LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1373 (Fed. Cir. 2008) (“Our precedent is replete with examples of subject matter that is included in the specification, but is not claimed.”); *Baran v. Med. Device Techs., Inc.*, 616 F.3d 1309, 1316 (Fed. Cir. 2010) (“It is not necessary that each claim read on every embodiment.”).

The cases Apple cited are inapposite. Apple cited a dissenting opinion in *Retractable Technologies* in which Judge Moore objected to an opinion that “[c]hang[ed] the plain meaning of a claim term to tailor its scope to what the panel believes was the ‘actual invention.’” Reply, 5-6 (citing *Retractable Techs. v. Becton, Dickinson & Co.*, 659 F.3d 1369, 1372-73 (Fed. Cir. 2011) (Moore, J., dissenting)). *Liebel-Flarsheim* also does not suggest that a claim must be construed to cover all disclosed embodiments, but instead that claims are not limited to the only disclosed embodiment. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004). None of Apple’s cases suggest a claim must be construed to cover all disclosed embodiments.

Second, no evidence suggests that Figures 11B and 11C of the ’223 Patent illustrate a measured value being replaced. The ’223 Patent does not describe those

figures as showing a replacement. It describes those and other figures as “display screens of the patient monitor of FIG. 11A.” EX1001, 4:42-43; *id.*, 17:17-22. The specification also does not suggest that Figures 11B and 11C show a sequence of events or suggest that any action took place between the figures, much less a replacement. *See id.*, 17:15-17:67.

The specification explains much later that “the monitor 1000 may advantageously employ enlargement or reorganization of parameter data based on, for example, the severity of the measurement.” *Id.* 19:24-26. But merely enlarging, rearranging, or reorganizing data, without more, is not a replacement. Furthermore, no expert has opined that a POSITA would have understood “replacing” to encompass simply rearranging or reorganizing data. Such an understanding would be contrary to the ordinary English meaning of “replacing.” As previously explained, for example, if one needed to replace the batteries in a device, no one would think that the old batteries would remain in the device after the replacement. EX2042, ¶¶65-66. Similarly, swapping the position of two old batteries is not replacing the batteries. Apple’s argument is not how a POSITA would have understood replacing.

Third, Apple does not even attempt to show that Figures 11B and 11C meet other limitations of the claims such that they illustrate a claimed embodiment. For example, the claims require the replacement to occur based on the occurrence of an event (e.g., one of the measured values approaching a threshold, alarming, etc.). But

nothing in the specification discloses changing from Figure 11B to 11C based on an event. To the contrary, in Figures 11B and 11C, the two values, “1.2” and “3.25” remain the same in both figures. Nothing suggests any event has occurred, particularly with respect to measured parameters with identical values. When the specification discusses events, like alarms, the patent discloses removing one parameter for another, not merely rearranging them. EX1001, 5:20-25. Rather, Figures 11B and 11C are unclaimed embodiments.

3. The '223 Patent's Reexamination History Supports Masimo's Construction

Apple argues that the prosecution history supports its rearranging argument because in Al-Ali's Figures 16A and 16B the value “152” “still occupies some of the same area it previously occupied and thus was not fully replaced by the newly displayed “98/88” values. Reply, 6-7. However, the Examiner found that this was not “replacing” but merely switching from displaying a first value to displaying a first and second value. EX1020, 6 (“Al-Ali does not replace the first value, but switches from displaying the first value to displaying first and second values.”).

Apple also argues that the Examiner did not comment on whether the measured value remains displayed after the replacement. But the Examiner explained, “when an alarm condition is detected, Al-Ali switches from displaying one parameter to displaying all of the parameters to allow the user to better view the conditions that caused the alarm,” and therefore, “there would be no motivation to simply replace the first parameter with the second, ***as it would contradict the direct***

teaching in the reference of allowing the user to see the entirety of the patient's condition." EX1020, 6-7; EX2042, ¶76. Thus, the Examiner understood that replacement of a measured value entails removal of it from the display because replacement would result in the user not being able to see the patient's full condition.

4. Replacing Requires The Second Measured Value To Not Be Displayed At The Same Time As The First Measured Value

Masimo explained that under the proper construction of "replace," the claim limitations taken together "require displaying the measured value of the first parameter and then replacing the value with a second measured value of a second parameter that the device is currently monitoring, but not displaying." POR, 27-28. Apple argues that this is an unsupported, implicit construction. Apple is incorrect.

As Masimo explained, "replacing" requires removing one parameter in favor of another, not merely rearranging parameters already displayed. Indeed, the specification explains that this allows a display with "insufficient space" to "cycle through two or more measured parameters in an area common to both parameters." EX1001, 10:6-12. If the second parameter is displayed at the same time as the first parameter, as Apple proposes, then the display would be merely switching from displaying a first and second parameter, to a second parameter. But this is essentially the argument the Examiner rejected during reexamination. As the Examiner explained, Al-Ali did not disclose replacing because it "switches from displaying the first value to displaying first and second values." EX1020, 6. If merely switching

back was all that was required to showing replacing, the Examiner would have rejected the claims over Al-Ali.

Apple also cites Figures 11B-11C of the '223, to support its argument, but as already explained, those figures show rearranging, not replacing. Thus, this argument fails for the same reasons discussed above. *Supra* §II.A.1.

B. “Changes” (Claims 13, 28)

Apple argued that Masimo’s arguments are deficient for the same reasons as for “replaced.” Reply, 11. But Masimo presented distinct arguments and evidence for the “changes” limitations based on the language of Claims 13 and 28 and the plain and ordinary meaning of changes. POR, 18-19. Apple did not address this evidence. Apple also did not address Claim 28’s different language that requires “*the display* to change from displaying [the first measured value] to displaying [the second measured value].” Claim 28 (like Claim 27) therefore requires the first measured value be no longer displayed on the display after the change. Further, Apples arguments regarding “replaced” are incorrect. *Supra* §II.A.

C. “Measured Values” (All Claims)

The claims require “measured value[s]” of two physiological or blood parameters and that the display of one measured value is replaced with (or changed to) the display of the other measured value. The plain language thus requires there to be measured values from two parameters that are both being currently monitored by the patient monitoring device because the *display* of one measured value is

replaced with or changed to the other. Thus, Masimo explained that a “measured value” refers to a “value of a parameter currently detected and determined by the monitor.” POR, 10.

Apple argues that Masimo construction is “ambiguous” because it is unclear “what frequency of monitoring falls within the realm of ‘current.’” Reply, 11-12. But Apple’s expert offered no such opinion and Apple’s attorney argument alone is insufficient.

Regardless, a POSITA would understand what current means in the context of the ’223 Patent. Indeed, the claims and specification explain that the monitor uses the measured values to determine whether a parameter approaches or crosses a threshold, is alarming, is more critical than the other, or otherwise indicating a worsening state of a patient ([21b]). See EX1001, 5:9-25, Claims 1, 13, 15, 18, 21, 27, 28. Thus, a POSITA would understand that the monitor must determine the measured values frequently enough to make these determinations. See EX2042, ¶55. This is sufficient. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014) (“absolute precision” is not required in claims).

Apple further argues that the claims require that only “one of the two parameters must be currently monitored—not both.” Reply, 13. But the claims recite displaying measured values from two parameters: (1) the parameter being displayed, and (2) the parameter that replaces it. If one of the parameters is not being monitored, then there is no measured value to be displayed.

III. THE CLAIMS OF THE '223 PATENT ARE NOT OBVIOUS

A. The Prior Art Does Not Disclose *Replacing (Or Changing)* the Display Of A Measured Value Of One Parameter With The Display Of Another (All Claims)

Every claim requires the display of a measured value of a first parameter be replaced with or changed to the display of a measured value of a second parameter. Masimo showed that Naghavi, Hochstedler, and Burnes—individually **and** in combination—lack this feature. POR, 28-57. Apple does not substantively dispute this. Reply, 14-22. Instead, Apple argues Masimo failed to “consider” or “appreciate the nature of” Apple’s “combination as a whole,” whatever that might mean. *See id.* Apple never identifies anything in its combination that Masimo did not address.

Hochstedler does not disclose or suggest replacing the display of measured values in a common display area because the boxes in Hochstedler’s Figures 2, 9, and 13 do not show any measured values. POR, 28-38. Instead, to fill the gap in Hochstedler’s disclosure, Apple annotated “###” into Hochstedler’s figures to suggest that the combination replaces those “###” measured values with measured values from a different parameter. *See id.*; Pet., 25-27.

Apple does not dispute that it modified Hochstedler’s figures, but now faults Masimo for allegedly “ignoring that Hochstedler is **merely one reference** in the Naghavi-Hochstedler-Burnes combination.” Reply, 16. But Hochstedler is the **only** reference Apple relied on for replacing the display of measured values in a common

display area. Pet., 9-17, 22-30. As the Board observed, “[Apple] relies on Hochstedler for the specific GUI changes that show replacement of one measured value of a parameter for another, **not Naghavi or Burnes.**” Inst., 21 (citing Pet., 9-17, 25-30). The Board also explained that “[Apple] relies on Hochstedler’s replacement of sub-layouts within its GUI to show that measured values for different parameters are displayed in a common display area.” *Id.*, 18 (citing Pet., 22-25). Thus, Masimo addressed all that Apple relied on—Hochstedler—and showed it does not disclose replacing the display of one measured value for another in a common area. POR, 28-38. Nothing in the “Naghavi-Hochstedler-Burnes combination” changes that analysis.

Apple also argues that Hochstedler “**can** display information about parameters other than those specifically illustrated,” but that argument is misleading. Reply, 16-17 (emphasis changed); *see also id.* at 15. In other words, Apple argues that the empty parameter boxes in Hochstedler **could** display measured values. But that misses the point.

Without Apple’s “###” modifications, Hochstedler’s Figures 2, 9, and 13, show only a blank display box for an unmonitored parameter. Hochstedler would change a parameter box to a different parameter only if that original parameter were not being measured. That is because Hochstedler’s system uses an algorithm that ensures that **all** monitored parameters are displayed. POR, 37-38; EX2042, ¶110; EX1004, 6:64-7:2, 8:19-24. Indeed, Hochstedler’s system would change its display

layout if it detected any monitored parameters were missing. EX1004, 8:19-24; EX2042, ¶110, POR, 37-38. Thus, if Hochstedler's Figure 2 actually had been displaying a measured value in either the GAS or the SvO2 boxes that Apple relied on, then Hochstedler's system **would not replace** either of those boxes with a different parameter. Hochstedler teaches to avoid having a measured parameter be missing from the display. EX2042, ¶¶110-111, 135. Even now, Apple and its expert have never addressed that teaching in Hochstedler.

Hochstedler's change from a blank box to a different parameter is fundamentally different than what the claims require. They recite that the **display of a measured value** of a parameter is replaced with the measured value of another parameter. No information about the patient would be removed from the display area when replacing a blank box for an unmonitored parameter. Apple's annotations falsely suggest that Hochstedler and the combination discloses replacing a measured value when they do not. Thus, Hochstedler does not disclose replacing one measured value with another.²

² Notably, Apple does not argue that Hochstedler teaches replacing one value with another under Apple's incorrect construction that replacing can include rearranging. Reply, 19-22, 25-27. Thus, Hochstedler fails to disclose this limitation under both parties' constructions.

Apple was required to put forth at least one reference that disclosed replacing the display of one measured value for the display of another. *Par Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1194 (Fed. Cir. 2014) (party alleging obviousness has “burden to prove that all claimed limitations are disclosed in the prior art”). Because Apple’s references, individually or in combination, do not disclose that feature, Apple fails to show obviousness. *Id.* at 1196.

B. None Of The Prior Art At Issue Monitors An Undisplayed Parameter (All Claims)

Apple argued in its Petition that the Naghavi-Hochstedler-Burnes combination discloses replacements based on an event because “[w]hen a parameter that is not displayed in that initial layout (*e.g.*, the second parameter) changes in severity, the layout changes such that the value of that second parameter is displayed.” Pet., 28-29; *see also id.*, 12; EX1003, ¶78 (“When the value of a parameter that is not displayed in that initial layout (*e.g.*, the second parameter) changes in severity, the layout changes (*e.g.*, from the FIG. 2 layout to a different layout, such as one based on Hochstedler’s FIG. 9 or 13).”). This layout change was also the basis for Apple’s alleged motivation to combine the references. *See* Pet., 14 (“automatic layout switching would enable caregiver monitoring of changing parameters even if they are not displayed on a main screen.”); *see also id.*, 12-15; EX1003, ¶¶38, 44, 49, 50, 78; EX2042, ¶¶120-121.

But as Masimo explained, Apple’s references could not be combined to achieve the result that Apple alleged because none of the references disclose

monitoring parameter that is not displayed. POR, 42-44. Apple's expert could not identify any such disclosure from any of the references. POR 43-44 (citing EX2043, 61:11-62:14, 62:15-18, 62:19-64:6). Instead, Apple's references display all measured parameters, which Apple did not contest. See POR, 28-40.

Apple's Reply still does not identify any reference that discloses monitoring a parameter that is not displayed. Instead, Apple now argues that it would have been "common sense" that the combination system must be actively monitoring the replacing parameter because that would have been necessary for the combination to function. Reply, 18-19; EX1022, ¶¶6-9. But that confirms Masimo's point. The Naghavi-Hochstedler-Burnes combination could not have worked as Apple alleged because the necessary feature that would have enabled its operation is not disclosed in the references.

Instead, Apple's Reply confirms that Apple relied on hindsight to combine the references. Apple cannot combine the references in hindsight to somehow disclose what was never taught.

C. Rearranging Parameters Is Not Replacing One Parameter With Another (All Claims)

Apple raises a new theory based on Naghavi that rearranging icons on a display shows that a measured value of a parameter would be replaced by the measured value of another parameter. Reply, 20. Specifically, Apple relies on Naghavi's reference to rearranging icons or health objects and argues that "[a] rearrangement of displayed icons/health objects involves moving displayed objects

around such that one object is displayed in the place previously occupied by another—*i.e.*, **replacement** of one health object with another.” Reply, 20 (citing EX1005, ¶¶59, 63) (Apple’s emphasis).

The Petition presented no such argument based on Naghavi that rearranging two objects on a display satisfies the claim limitations. Pet., 25-27. The Board recognized the Petition “relie[d] on Hochstedler for the specific GUI changes that show replacement of one measured value of a parameter for another, ***not Naghavi*** or Burnes.” Inst., 21. Instead, the Petition relied on Naghavi to argue only that “the replacement is **based on the occurrence of an event**,” but not the replacement itself. Pet., 27 (Apple’s emphasis). Thus, Apple impermissibly relies on “previously unidentified portions of a prior-art reference to make a meaningfully distinct contention.” *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1367 (Fed. Cir. 2015).

Apple’s new theory also lacks merit. As discussed, rearranging is not “replacing” as required by the claims. *Supra* §II.A. Rearranging two displayed values would lack a “common display area” between the two displayed values them. Apple never explains how the rearranging icons theory accounts for a “first display area,” “second display area,” and “common display area” (Claims 1, 13, 15, 18). Apple similarly fails to explain how the the measured value is replaced in the “display” (Claims 27, 28). And no expert has opined that Naghavi’s reference to rearranging icons discloses replacing measured values. Because Apple does not

explain its theory or how that theory would show multiple claim limitations, its new rearrangement theory fails to show obviousness.

D. A POSITA Would Not Have Been Motivated To Combine Naghavi, Hochstedler, And Burnes (All Claims)

Apple’s Reply confirms Apple set forth two sets of motivation-to-combine arguments: “(1) reasons for display of icons/health objects in layouts, based on Hochstedler (*see* Petition, 13-14) **and** (2) reasons for change of severity of a parameter triggering a display change, based on Burnes (*see id.*, 14-15).” Reply, 22 (Apple’s emphasis). Apple’s “(1)” arguments relate to reasons to combine Naghavi with Hochstedler, while its “(2)” arguments relate to reasons to further combine Burnes with Naghavi and Hochstedler. Thus, Apple confirmed it must prevail on **both** sets of arguments because “these reasons together—not in the alternative—motivate the combination.” *Id.*

Masimo’s POR addressed the “(1)” arguments regarding Naghavi and Hochstedler on pages 44-48, and then addressed the “(2)” arguments regarding all three references on pages 48-57. But Apple’s Reply presents **no rebuttal** to any of Masimo’s arguments from pages 48-57. Reply, 22-24 (only addressing arguments at POR 46-47).

For example, Masimo explained that Hochstedler taught away from Apple’s Naghavi-Hochstedler-Burnes combination because Hochstedler’s teaches an algorithm that **avoids** the possibility that a parameter is missing. POR, 49-51, 37;

EX2042, ¶¶135-136; EX1004, 8:19-24, 6:61-7:2. In contrast, Apple’s combination involves **removing** the “###” for GAS or SvO2 blocks from the Apple-edited Hochstedler Figure 2. Pet., 25-27. And Apple argues that that event that would trigger the removal is “[w]hen a parameter that is **not displayed in that initial layout** (e.g., the second parameter) changes in severity.” Pet., 28-29. Hochstedler teaches to avoid that scenario altogether. Pet., 25-27. A POSITA would not have combined the references in a way that contradicts their teachings. EX2042, ¶¶135-136. Apple has no response.

In its Petition, Apple also argued that a POSITA would have been motivated by Burnes to “relieve the data analysis burden on the clinician” by “displaying certain parameters only when necessary.” Pet., 15. But Burnes actually disclosed simultaneously displaying all data in a well-organized chart. POR, 51-52. Again, Apple has no response.

Further, Masimo explained that Apple’s mere recitation of *KSR* failed to explain how or why three references would be combined. POR, 54-57. Again, Apple has no response. Apple thus effectively concedes a POSITA would not have been motivated to combine Naghavi, Hochstedler, and Burnes as Apple presented no rebuttal.

Moreover, Apple’s Reply fails to rebut the two Masimo’s arguments it did address. Reply, 22-24.

First, Apple argues that “‘not displaying a monitored parameter’ [] is not a limitation of the claims” and therefore is “irrelevant.” Reply, 23; *id.* (“removing a monitored parameter from display is not required by the claims.”). But it is required by the claim limitations. *Supra* §II.A. And even if it was not, Apple’s invalidity theory was that the Naghavi-Hochstedler-Burnes combination satisfies the claims because it replaces (and thereby removes) a parameter from the display when an undisplayed parameter changes in severity. As Apple stated, “replacement as recited in the claims encompasses removal from the display entirely.” Reply, 5. And as mentioned above, the Petition argued the Naghavi-Hochstedler-Burnes combination satisfies the claims by replacing (and removing entirely) the “###” from the “GAS” and “SvO2” parameter blocks in the Apple-edited version of Hochstedler’s Figure 2. Pet., 25-27. The Petition further argued that the replacement is “based on the occurrence of an event,” because “[w]hen a parameter that is not displayed in that initial layout (*e.g.*, the second parameter) changes in severity, the layout changes such that the value of that second parameter is displayed, thus serving as an alarm....” *Id.*, 28-29. Apple’s motivations to combine were also premised on parameters being displayed only when necessary. See Pet., 12, 14, 15; EX1003, ¶¶38, 44, 49, 50, 78; see also EX2042, ¶¶120-121 (collecting quotes). Because Apple premised its invalidity theory on one of the parameters not being displayed, it needed to support that premise. Apple failed to do so.

Second, Apple argues “rearrangement of parameters” also would have motivated the combination. Reply, 23. But the Petition did not propose a combination where data is merely rearranged on a display. Pet., 25-27. And as explained above, Apple’s rearrangement theory is both untimely and does not satisfy the claims. *Supra* §II.C.

Third, Apple argues some parameters “may not be of particular importance” or “not clinically relevant” and can therefore be removed from the display to avoid an “overwhelming amount of information” or to prioritize certain information. Reply, 23-24. But removing measured parameters from display is contrary to Hochstedler’s teaching that its system avoids that possibility. POR, 49-51; EX2042, ¶¶135-136; EX1004, 8:19-24. Moreover, no evidence supports Apple’s suggestion that a POSITA would make decisions for medical professionals about which parameters are important or clinically relevant. Instead, if a clinician decided to monitor a parameter, then the clinician would have expected that parameter to be displayed. POR, 51; EX2042, ¶141.

Fourth, Apple argues that Masimo “improperly attacks the references individually” and that “the specific contents (or lack thereof) of the blocks in Hochstedler’s layouts are not at issue in the combination.” Reply, 24. But Apple’s criticism does not make sense. Apple relied on Hochstedler and Naghavi to support its removal of less relevant information argument. Pet., 14 (citing EX1004, 1:49-50; EX1005, [0063]). Masimo explained that neither reference taught any

parameters were “less relevant” such that they could be removed from display, and in fact, Hochstedler continues to show unused parameter blocks that would be even less relevant. POR, 46-47.

E. Apple’s New Arguments Lack Merit (All Claims)

Apple argues Naghavi’s “show[ing] different types of icons and health objects according to different diseases and/or physical conditions of patient” discloses the claimed replacement of measured values. Reply, 25-26 (citing EX1005, ¶59). That is another new theory. The Petition relied on Naghavi to teach triggering based on an event, not for the replacement of a measured value. Pet., 27; *supra* §III.C; Inst., 21. Thus, Apple’s new argument should not be considered.

Even if considered, the new argument fails. Naghavi never describes **replacing** the display of one measured value for another. POR, 42-44. As explained above, the claims require there to be measured values from two currently monitored parameters: (1) the measured value currently being displayed, and (2) the measured value that replaces it. Naghavi’s description of showing different icons or objects according to different diseases or physical conditions fails to disclose two currently monitored parameters, let alone that they replace each other. Instead, Naghavi’s disclosure merely suggests that if a patient has the flu, then the monitor can display parameters relevant to the flu, such as oxygen saturation, and if the patient was hospitalized for smoke inhalation, then the monitor can display parameters relevant to smoke inhalation, like carbon monoxide. Indeed, that is similar to Hochstedler’s

disclosure of changing a display layout based on when the system capabilities (*e.g.*, which sensors are plugged in) changes. *See* POR, 30-32. That does not disclose replacing a measured value of a parameter with the measured value of another parameter.

Apple further argues that replacing a measured value “was well-known,” relying on a new reference, Malmborg. Reply, 26 (citing EX1021). But Malmborg is not part of any combination in this IPR and thus cannot supply the missing limitation. Pet., 1; EX1022 ¶18; EX2044, 23:20-24:3. Further, Apple does not explain how Malmborg allegedly shows that replacing a measured value was “well-known,” let alone why it matters to the instituted combination. Instead, Apple improperly incorporated several pages of expert testimony. Reply, 26 (incorporating EX1022, ¶¶15-18). Thus, that testimony should be ignored. 37 C.F.R. §42.6(a)(3); *see Parus Holdings, Inc. v. Google LLC*, 70 F.4th 1365, 1371-72 (Fed. Cir. 2023).

Regardless, even that testimony fails to show that replacing a measured value was well known. Apple’s expert dedicated pages to speculate about how descriptions from different embodiments would be combined to purportedly arrive at measured values being replaced. But Apple’s expert conveniently ignores that Malmborg described windows (showing colors, not measured values) “superimposed upon one another” in a way that both windows are visible. EX1021, ¶67, Fig. 6; *see also Superimposed*, THE NEW OXFORD AMERICAN DICTIONARY

(2001) (“place or lay (one thing) over another, typically so that both are still evident”).

F. The Prior Art At Issue Is Not “Configured To Default To Displaying One Of The Measured Values” As Recited In Claim 4

Apple argues Hochstedler provides “an example of a default layout: a dialog box with a ‘default selection button.’” Reply, 27. But Apple never explains how that button discloses “wherein the common display area is configured to default to displaying one of the measured values of the first or second physiological parameters.” *Id.* Indeed, it does not. As previously discussed, Hochstedler does not “default” to displaying one of the measured values because its algorithm dynamically recommends a layout based on connected components. POR, 47-49.

Apple argues the POR attacks Hochstedler individually rather than Apple’s combination. Reply, 27. But Apple solely relied on Hochstedler for this limitation. Pet., 32-33. On Reply, Apple now argues default layouts include those “automatically used by a program in the absence of a choice made by the user.” Reply, 27-28; EX1022, ¶21. Specifically, Apple’s expert argues “Bedlayout1” (not the “default selection button” the Petition relied on) is a default layout because “the user does not make a selection.” EX1022, ¶21. But Apple’s theory is incorrect. As Apple’s expert confirms, Hochstedler requires the user to select the “OK” button to switch to the recommended layout (Bedlayout1) or the “CANCEL” button to return to the current layout. EX2044, 16:22-18:17; EX1004, 8:30-39. Thus, even under

Apple’s own reasoning, Hochstedler does not disclose a default layout, much less the claimed “default” configuration.

IV. CONCLUSION

For the foregoing reasons, Masimo respectfully requests the Board confirm the validity of all challenged claims.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: February 7, 2025

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), Counsel for Patent Owner Masimo Corporation hereby certifies that this document complies with the type-volume limitation of 37 C.F.R. § 42.24(c)(4). According to Microsoft Office Word 2010's word count, this document contains approximately 5,525 words, including any statement of material facts to be admitted or denied in support, and excluding the table of contents, table of authorities, mandatory notices under § 42.8, exhibit list, certificate of service or word count, or appendix of exhibits or claim listing.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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CERTIFICATE OF SERVICE

I hereby certify that, pursuant to 37 C.F.R. § 42.6(e) and with the agreement of counsel for Petitioner, a true and correct copy of **PATENT OWNER MASIMO CORPORATION'S SUR-REPLY** is being served electronically on February 7, 2025, to the e-mail addresses shown below:

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