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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MASIMO CORPORATION
Petitioner,

v.

APPLE INC.
Patent Owner.

Case No. IPR2023-00664
U.S. Patent No. 11,106,352

PETITIONER'S REPLY

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I. INTRODUCTION

The '352 patent claims a method of navigating between different graphical-user-interface (“GUI”) screens (including wake, home, widget, and control panel screens) using movements directed to a touchscreen input device, such as swipes. Before touchscreens, users could navigate between such screens on a computer using a keyboard or mouse. EX1056 ¶8.¹

Touchscreens were ubiquitous on tablet computers and smartphones before the '352 patent. Prior-art touchscreens interpreted different actions—such as a tap on a location or a swipe in a specific direction—as input to the GUI. These actions are referred to as gestures. Their intended and obvious purpose was to replace key presses, mouse movements, and clicks that are not necessary on touchscreen devices. The '352 patent merely substitutes these prior-art gestures for keyboard or mouse input to navigate between prior-art screens. As established by the Petition, the prior art discloses the exact navigational paths between the wake, home, and widget screens recited by the independent claims. Pet., 33-63, 70-72; EX1056 ¶9.

The prior art does not explicitly disclose the exact navigational paths between certain screens of some dependent claims. However, implementing a user interface

¹ Each paragraph of this Reply supported by Dr. Rosenberg’s third declaration is followed by a single citation to that declaration.

to use a limited set of swipes to navigate between a limited set of screens would have been obvious. Apple fails to rebut Masimo’s showing that the claimed navigational method would have been an obvious use of prior-art touchscreen swipes to navigate between prior-art screens. Apple is not entitled to a patent claiming simple design choices such as which swipe direction to use to navigate between screens. EX1056 ¶10.

II. CLAIM CONSTRUCTION

The Board’s Institution Decision construed just one claim phrase: “input is directed to a portion of.” Inst. Dec., 9. Apple does not address the Board’s or Masimo’s claim constructions. Instead, it asserts that no claim construction is necessary as Apple’s patentability arguments are not based on claim constructions. POR, 6. Accordingly, no additional claim construction is necessary to resolve the parties’ disputes. Nevertheless, Masimo submits certain information related to the district court litigation *Apple Inc. v. Masimo Corp. et al.*, C.A. No. 22-1378 (D. Del.), for the Board to consider. EX1056 ¶¶11-15; EX1058-EX1062.

III. MOTIVATION TO COMBINE

A. A POSITA would have been motivated to combine Chae and Narendra.

Apple argues combining Chae and Narendra would render Chae unsatisfactory for its intended purpose of using swipes to navigate between screens associated with different SIM cards. POR, 10-13. Apple is wrong for many reasons.

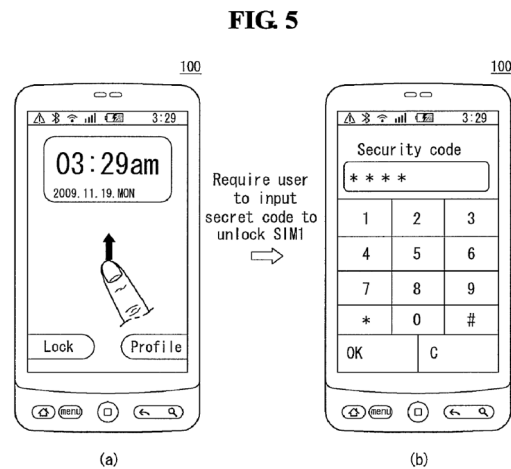
First, Apple’s argument rests on restricting the teachings of each reference to their environment. For example, Apple argues Chae’s swipes can only be used to switch between screens associated with different SIM cards while Narendra’s swipes can only be used to switch between password-protected and non-password-protected screens. POR, 11-12. Masimo does not propose implementing Narendra’s specific teaching of navigating between password-protected and non-password-protected screens in the combination. Rather, Masimo relies on Narendra’s general teaching of navigating among screens in two dimensions using swipes. In addition, the obviousness inquiry is not so limited. The references’ general teaching of using swipes to navigate between screens has obvious uses beyond discriminating between home screens with different SIM cards or levels of password protection. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007) (“familiar items may have obvious uses beyond their primary purposes”); *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 800 (Fed. Cir. 2021) (a reference’s intended purpose does not control the obviousness inquiry); *Axonics, Inc. v. Medtronic, Inc.*, 73 F.4th 950, 957 (Fed. Cir. 2023) (POSITA may be motivated to combine certain features to achieve claimed invention “even when bodily incorporation” of all disclosed but unclaimed features “would be impossible or inadvisable”); *In re Heck*, 699 F.2d 1331, 1333 (Fed. Cir. 1983) (prior-art patents are not limited to their described invention or problems solved; they are “relevant for all they contain”). EX1056 ¶¶16, 19.

Moreover, Apple’s expert, Dr. Cockburn, admitted those swipe concepts were well-known, and Chae and Narendra teach them. EX1057, 44:11-15, 46:12-48:3, 61:19-62:14. Cockburn also agreed a two-reference combination need not incorporate every teaching from both references. *Id.*, 83:9-13, 84:8-14, 85:2-19. EX1056 ¶16.

Second, Narendra’s teachings are compatible with Chae’s multi-SIM-card architecture. Apple does not dispute Chae and Narendra both teach the well-known concept of navigating between screens using swipes. EX1057, 44:11-15, 46:12-48:3, 61:19-62:14. Narendra more specifically teaches navigating in two dimensions using left and right swipes to move horizontally and up and down swipes to move vertically. *Id.*, 62:4-14, 75:9-13. A POSITA would have easily implemented the Narendra navigational concepts on various hardware platforms, including Chae’s multi-SIM-card device. Such implementation on Chae’s multi-SIM-card device would advantageously allow direct navigation from one screen associated with a SIM card to another screen associated with a different SIM card. EX1056 ¶17.

Third, Apple fails to establish navigating between password-protected and non-password-protected screens is incompatible with navigating between screens associated with different SIM cards. POR, 11. Apple asserts Chae and Narendra are incompatible because they use the same swipe for different actions. *Id.* For example, Narendra uses an upward swipe to access a password-protected screen, but

Chae uses an upward swipe to access a screen associated with SIM1. *Id.* However, a compatible combination would use an upward swipe to access a password-protected screen also associated with SIM1. Indeed, Chae Figure 5 expressly discloses that exact combination, depicting an upward swipe for accessing a screen associated with SIM1 after inputting a secret code:



Chae also discloses using swipes to access non-password-protected screens associated with a different SIM2: “the second SIM (SIM2) is a SIM that does not require a user to input a secret code to unlock.” EX1005 ¶106. Cockburn admitted a POSITA could design a device that can both navigate between screens of different SIM cards and navigate between password-protected and non-password-protected screens. EX1057, 85:20-86:12. EX1056 ¶20.

Moreover, even if there were some instances where Chae and Narendra use the same swipe for truly incompatible actions, Apple erroneously discounts a POSITA’s creativity by pretending it would have been impossible to resolve the

incompatibility. Pet., 12; *but see* EX1057, 13:19-14:11 (GUI design requires creativity); *KSR*, 550 U.S. at 421 (POSITA has ordinary creativity and is not an automaton). A POSITA would have known a user interface cannot use the same swipe movement to navigate to two different destination screens from a common origin screen. Thus, in combining Chae and Narendra, a POSITA would have resolved any trivial incompatibility by associating a unique swipe with each destination screen reachable from a common origin screen. EX1057, 88:2-7. EX1056 ¶21. Further, the Petition shows it would have been obvious to implement navigation between screens using swipes on either a multi-SIM-card device like Chae or a single-SIM-card device like Narendra. Pet., 63; EX1056 ¶16.

Apple also argues Narendra provides no guidance on operating a user interface with multiple SIM cards. POR, 11. But Chae already provides that guidance, so Narendra does not need to. EX1057, 82:2-12. A POSITA would not have to change Chae’s multi-SIM-card architecture to implement the Narendra navigational concepts. Apple points to no technical barrier that would have prevented a POSITA from implementing Narendra’s concepts on Chae’s multi-SIM-card device. EX1056 ¶18.

B. Masimo showed both generally and specifically that a POSITA would have been motivated to make each of the proposed combinations.

Apple argues the Petition’s general motivation-to-combine section is inadequate. POR, 13-17. However, the Petition does not rely solely on a general

motivation for all the combinations. Pet., 33. It explains a POSITA would have been motivated generally to combine compatible, additive, and advantageous user-interface features from multiple references into a single smartphone to achieve the additive advantages of the combined features. *Id.* But it also explains “a POSITA would also have been motivated to combine the prior art for specific reasons set forth in the analysis” in the Petition. *Id.*; *see also id.*, 45, 49, 62, 63, 69-70, 75-77, 79-80, 87-93. Apple’s criticism of Masimo’s general motivation improperly ignores the specific motivations set forth in the Petition. EX1056 ¶22.

Apple argues the Petition’s general motivation-to-combine section does not identify unpatentability grounds with particularity. POR, 13-15. This argument conflates the separate requirements of (1) identifying a motivation to combine and (2) identifying grounds with particularity. The general motivation-to-combine section need not identify grounds with particularity. Section V of the Petition identifies Masimo’s six grounds with particularity. Pet., 33-93.

Apple argues Masimo’s Shuttleworth combinations are an example of the Petition’s “problematic and generic explanation” of motivation to combine. POR, 16. To the contrary, the Petition explains specifically and in detail that a POSITA would have been motivated to use Shuttleworth’s teaching of using a “unique directional swipe gesture that always navigates to the home screen” while using Narendra’s teaching of “swipe gestures to navigate between a spatial arrangement

of numerous non-home screens.” Pet., 31. The Petition further explains this approach would provide the advantages of both systems:

A POSITA would have understood that such a combination would provide the advantages of both systems, allowing the user to easily navigate among a large number of screens without memorizing a unique directional swipe gesture for every screen while also easily navigating to the home screen from anywhere using a single unique directional swipe gesture.

Id., 32. In addition, the Petition explains that using a consistent swipe to access the home screen would have been an obvious substitute for a home button and “enhances ease of use, efficiency, and convenience.” *Id.*, 74-76. Further, the Petition explains why the motivation to use Shuttleworth’s teaching of a consistent swipe for the home screen is consistent with the motivation to use Narendra’s system for non-home screens. *Id.*, 77-80. EX1056 ¶23.

IV. OBVIOUSNES OF CLAIMS 1 AND 6

A. The prior art renders claim 1 obvious.

1. Chae discloses a “computer system that is in communication with a display generation component and one or more input devices.”

Apple alleges the Petition “fails to address how Chae’s touchscreen is ‘in communication with’ a computer system.” POR, 18. But the Petition establishes Chae’s touchscreen receives input (such as swipes) and, in response, displays content (such as customized home screens) for the computer system. Pet., 34-35. It

is thus readily apparent the computer system must be in communication with the display and input components of the touchscreen. EX1057, 91:3-6, 93:13-18, 94:18-95:9. EX1056 ¶25.

2. Chae discloses or renders obvious “the computer system is in a power saving state.”

Apple argues Chae and Android do not expressly state their devices are in a power-saving state when their displays are off. POR, 19-20. But Cockburn concedes a display consumes less power when off. EX1057, 95:17-96:3. Cockburn and Apple speculate Chae might not save power with its display off because other components may consume more power. *Id.*; POR, 20. Nothing in Chae supports that speculation. EX1056 ¶26.

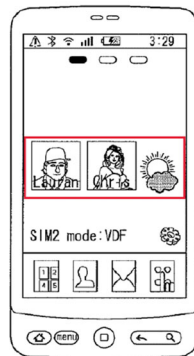
Further, Apple does not refute the Petition’s showing that:

A POSITA would have understood Chae’s disclosure that the mobile terminal “wakes up” to refer to the typical wake-up process that was well-known and commonly implemented in smartphones. Specifically, a POSITA would have understood that the mobile terminal was in “a power saving state” prior to waking up.

Pet., 38-39; POR, 19-20. Apple also ignores the Petition’s citation to a prior-art patent showing smartphones routinely turned off their displays during periods of inactivity to save power. *Id.*; EX1019, 4:39-65; *but see* EX1057, 18:22-19:4. In view of this routine practice, a POSITA would have understood Chae as disclosing its device is in a power-saving state when its display is off. EX1056 ¶27.

3. Chae discloses or renders obvious the “widget screen user interface” limitation.

The Petition shows Chae discloses or renders obvious that the icons in the center of Figure 6(b) are the claimed “user interface objects” of the widget screen.



(b)

Pet., 49-63. Apple argues Chae does not disclose that these icons display application content or cause display of applications when selected. POR, 22. If that were true, then the icons would be images without any function. A POSITA would not have interpreted Chae so rigidly to deprive the Figure 6(b) icons of any function. At a minimum, a POSITA would have understood the Figure 6(b) icons have basic application-icon functionality of launching corresponding applications when selected. Apple does not dispute that selecting an application icon to launch a corresponding application was basic GUI functionality. *See* Pet., 45-49; EX1057, 31:20-32:1. EX1056 ¶28.

The claimed “user interface objects” are merely application icons with the added functionality of displaying application content without requiring execution of the application. The Petition shows it would have at least been obvious to implement

Chae’s Figure 6(b) icons to include this added functionality. Pet., 49-63. Apple argues that “nothing in Chae suggests” each icon “is anything other than a generic graphical object.” POR, 22. To the contrary, the Figure 6(b) icons at least suggest that the images and names of “Lauran” and “Chris,” and the graphical depiction of weather conditions, are application content. Moreover, Cockburn admitted that the capability of implementing the Figure 6(b) icons as the claimed “user interface objects” predates the ’352 patent. EX1057, 100:19-101:8. EX1056 ¶29.

Further, it would have been obvious to implement Figure 6(b)’s icons to display application content in view of Chae’s disclosure that its customized home screens can include “widgets.” EX1005 ¶100. Apple argues that “the only widgets” Chae describes relate “to the use state of the multiple SIM cards” and do not correspond to applications. POR, 22-23. Apple’s argument fails for at least two reasons. First, Chae’s use-state widgets are non-limiting examples. Second, each use-state widget corresponds to an application that unlocks a SIM card and displays its customized home screen when the widget is selected. EX1005 ¶¶142, 152-153. EX1056 ¶30.

In addition, Apple does not dispute that prior art “widgets,” such as those disclosed in Hong and Android, display application content. POR, 22-23. Rather, Apple asserts that neither Hong nor Android “teach or suggest displaying the application when the widget is selected.” POR, 23. However, Cockburn admitted

the application widgets disclosed in Hong are consistent with *application icons* that also show a preview of contents. EX1057, 119:17-21. And displaying an application when the icon is selected is a basic function of any application icon, including a widget. EX1057, 31:20-32:1. EX1056 ¶31.

Moreover, both Hong and Android disclose or suggest displaying a corresponding application upon selection of the widget. Hong expressly discloses:

Recently, application widgets have been provided that enable a user to access contents provided in an application without executing the application, such as a clock, a calendar, a memo, search, a map, news, a real-time camera, and the like.

EX1010 ¶4. Hong further discloses that content displayed by a widget “functions as a preview of the information or the function without actually executing the application itself.” *Id.* ¶5. Apple improperly focuses on Hong’s express disclosure only to infer that an application cannot be executed upon selection of its widget. *See Merck & Co. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989) (obviousness question “is not merely what the references expressly teach but what they would have suggested to one of ordinary skill in the art”). Apple’s interpretation is implausible for at least four reasons. First, Apple improperly reads into Hong, which never says the application cannot be executed upon selection of its widget. Second, Hong’s disclosure that a widget displays a “preview” of application content “without actually executing the application itself” suggests that selecting the widget will

execute the application to display more content. Third, a POSITA would have understood that the widget applications Hong lists, such as a clock, calendar, map, or news, are the type of applications that can be executed to display more content. Fourth, a POSITA would have read Hong consistently with the basic GUI functionality that selecting an application icon launches an application. EX1056 ¶32.

With respect to Android, Apple ignores a portion of the video showing a device displaying an email application in response to the user selecting an email widget. EX1007, 2:08-2:14. Thus, Apple is incorrect that Masimo relies solely on Rosenberg’s opinion to show that selecting a widget to display a corresponding application was “well-known functionality.” POR, 23-24. Hong and Android corroborate Rosenberg’s opinion. Further, neither Apple nor Cockburn affirmatively deny that selecting a widget to display a corresponding application was well-known functionality. POR, 23-24; APPLE-2003 ¶48. EX1056 ¶33.

Accordingly, claim 1 would have been obvious.

B. The prior art renders claim 6 obvious.

Apple first argues dependent claim 6 is patentable for the same reasons it argues for claim 1. POR, 24. As shown above and in the Petition, however, claim 1 would have been obvious.

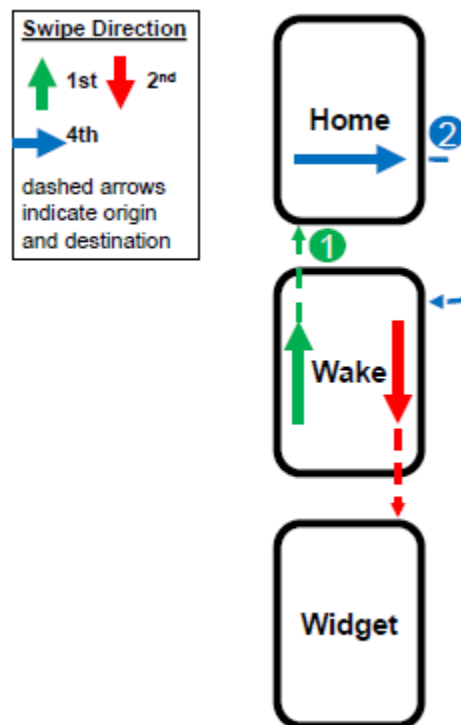
Apple next argues it would not have been obvious to add a different swipe to allow a user to return to the wake screen. POR, 25. Apple does not dispute: (1) Chae and Narendra disclose the basic concept of navigating from one screen to another and back using swipes and (2) a POSITA would have recognized swipes are an efficient and convenient mechanism for accessing any screen from any other screen. Pet., 66; POR, 25.

The Petition showed that selecting swipes to associate with navigational paths between screens “is a simple matter of choosing from a finite number of design choices.” Pet., 66. Apple responds, “the universe of possible swipe directions may be limited” but the number of “combinations of these directions and the various possible user interface screens is vast.” POR, 25. Apple cites nothing but a conclusory opinion of Cockburn. *Id.* (citing APPLE-2003 ¶50). No evidence supports Cockburn’s opinion that the number of combinations of possible swipe directions and screens is vast. A POSITA would have understood that useable swipe directions are practically limited to the handful users can easily distinguish and execute, such as swipes along the cardinal directions up, down, left, and right. EX1056 ¶34.

Further, a POSITA would have recognized that wake, home, widget, and control panel screens were among a small set of common user-interface screens disclosed by the prior art. Chae and Android disclose wake, home, and widget

screens, and Karunamuni discloses a control panel screen, as the Petition shows. Pet., 3-5, 8, 10-11, 39-41, 45-63, 83-87. Neither the prior art nor Cockburn identify a vast number of other screens. Moreover, even if other screens existed, a POSITA would have focused on the small set of commonly used screens disclosed by the prior art to enhance ease of use for most users. Therefore, the Petition is correct that designing the navigational system of claim 6 based on the basic concepts disclosed by Chae and Narendra would have been a simple matter of choosing from a finite number of design choices. EX1056 ¶¶35-36.

Apple next argues neither Chae nor Narendra expressly discloses the precise navigational path shown in the following graphic of Claim 6 from the Petition:



POR, 25-26 (citing Pet., 68). Apple misinterprets Masimo’s graphic as requiring that the “fourth direction” in claim 6 must be “*perpendicular* to the first and second directions.” POR, 25-26 (emphasis added). The Petition explains:

[T]he graphics illustrate *general* concepts, not a *precise* navigational map required by the claims. For example, the solid arrows in the graphic above are meant to illustrate that the first, second, and fourth directions are *different* from each other, *not* that they must be a bottom-to-top swipe, a top-to-bottom swipe, and a left-to-right swipe.

Pet., 68 n.8. Moreover, Claim 6 does not require that the fourth direction be perpendicular to anything and, thus, does not precisely define a single navigational map. It recites characteristics covering multiple navigational maps. The Petition proves claim 6 obvious in view of Chae’s and Narendra’s disclosure of navigating from one screen to another using swipes. Pet., 66-70. EX1056 ¶37.

Apple also argues Chae cannot be modified to yield claim 6 because Chae already associates a pre-defined action for swipes in each of the four cardinal directions and “[a]ny new swipe in a cardinal direction added to Chae would already be in a direction that has a pre-defined action.” POR, 26-27. Apple misinterprets Chae. The only “new swipe” Masimo proposes to add to Chae to yield claim 6 is compatible with Chae’s disclosure. Chae discloses using two different swipes to navigate from a wake screen to either a home screen or a widget screen, as required by claim 1. Pet., 42-63. Claim 6 recites a “fourth” different swipe for navigating

from the home screen to the wake screen. However, because Chae's swipes ***originate from the wake screen, not the home screen***, adding the claimed "fourth" swipe to return to the wake screen from the home screen would not require reusing Chae's specified swipes. EX1056 ¶38.

Even for swipes originating from the wake screen, Chae does not pre-define swipes for all four cardinal directions, as Apple alleges. Chae discloses at least four alternative embodiments that use swipes to unlock SIMs and display associated customized home screens including icons or widgets. None of the embodiments has pre-defined swipes in all four cardinal directions. EX1057, 133:3-10. EX1056 ¶39. Therefore, at least one cardinal direction is available for an added swipe.

One embodiment uses a bottom-to-top swipe to unlock SIM1 and display its customized home screen, a top-to-bottom swipe to unlock SIM2 and display its customized home screen, and a left-to-right swipe to unlock both SIM1 and SIM2 and display a combined customized home screen associated with both SIMs. EX1005 ¶¶103-104, 108-111. A second embodiment uses a right-to-left swipe to unlock SIM1 and display its customized home screen and a left-to-right swipe to unlock SIM2 and display its customized home screen. EX1005 ¶¶142, 144, 148, Fig. 19. Third and fourth embodiments use a bottom-to-top swipe to unlock SIM1 and display its customized home screen and a top-to-bottom swipe to unlock SIM2 and display its customized home screen. EX1005 ¶¶142, 144, 150-151, Figs. 20-21.

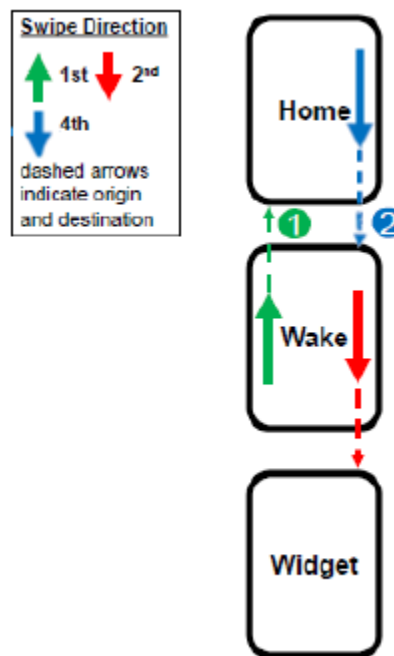
In addition, Chae discloses that the manufacturer or user may change the swipe directions associated with unlocking each SIM and displaying its associated customized home screen. EX1005 ¶112; EX1057, 134:7-18. EX1056 ¶40.

The obviousness of claim 6 does not rely on Chae itself disclosing claim 6’s “fourth” swipe for navigating from the home screen to the wake screen. Rather, it would have been obvious to modify Chae in view of Narendra’s teachings to add claim 6’s “fourth” swipe to return to the wake screen to allow the user to lock the smartphone, as the Petition shows. Pet., 66-70. EX1056 ¶41.

Apple argues, “with the numerous swipe gestures identified in Chae *because of its design to make multiple SIM cards accessible on the same device*, a POSITA would have understood that adding more swipe gestures for additional actions would have made the device in Chae less user friendly.” POR, 27 (emphasis added). To the extent Apple suggests Chae’s “design to make multiple SIM cards accessible” is somehow incompatible with claim 6’s navigation among wake, home, and widget screens, Apple is incorrect. As the Petition explains, Chae’s disclosure of using multiple SIM cards is irrelevant to the claims. Pet., 63. Chae’s multi-SIM-card architecture does not detract from its disclosure of using swipes to navigate between screens. Chae discloses the concept of using swipes to navigate between screens on a multi-SIM-card device and Narendra discloses the same concept on a single-SIM-

card device. A POSITA would have found it obvious to implement claim 6 on either a multi-SIM-card or a single-SIM-card device. Pet., 63. EX1056 ¶42.

Apple argues the combination would not yield claim 6 because Narendra teaches returning to a previous screen using a *parallel and opposite* swipe, not the *perpendicular* swipe shown in the Petition’s conceptual graphic of claim 6. POR, 27-28. Apple then argues the following hypothetical combination of Chae and Narendra does not embody claim 6:

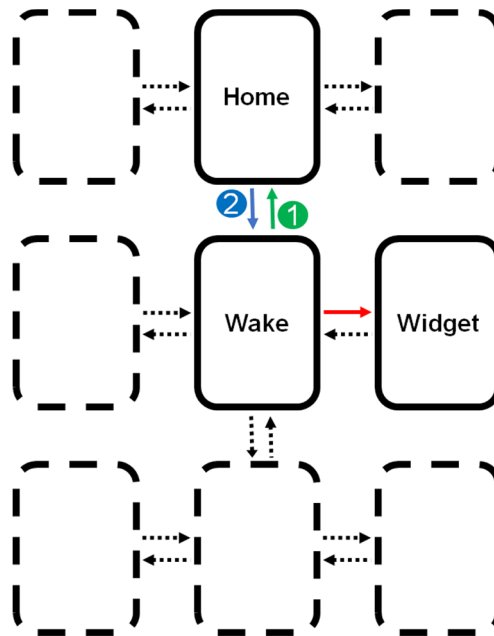


POR, 28-29. However, Apple’s identification of *one* hypothetical combination that does not embody claim 6 does not show that *no* combination embodies claim 6. Apple addresses a strawman hypothetical rather than the Petition’s proposal to combine Chae and Narendra by using a *different* swipe gesture for returning to the wake screen to reduce the likelihood of user confusion of inadvertent access of the

wake screen. Pet., 69-70. Apple does not refute that a POSITA would have wanted to reduce inadvertent wake-screen access. Instead, Apple argues a POSITA would have understood using a button press to return to the wake screen to be “more user friendly” than using a different swipe. POR, 29. Apple relies solely upon Cockburn’s conclusory opinion. APPLE-2003 ¶65. However, a POSITA would have understood swipes were designed as acceptable substitutes for button or key presses and mouse movements or clicks. Further, user-friendliness is a subjective opinion that Cockburn cannot quantify because he did not conduct surveys or user-interface evaluations. EX1057, 151:11-152:18, 153:18-154:9. While recognizing possible differences in users’ subjective opinions, a POSITA would not have been discouraged from using a different swipe to return to a wake screen because some users may find it easier to press a button. Rather, a POSITA would have recognized a different swipe to be one of a few suitable and obvious alternatives for returning to a wake screen. Apple’s proposal of one alternative some users may prefer does not negate a POSITA’s motivation to combine Chae and Narendra. *See Intel*, 21 F.4th at 800 (“suitable option” sufficient for obviousness); *In re Mouttet*, 686 F.3d 1322, 1334 (Fed. Cir. 2012) (existence of better alternatives does not negate obviousness); *In re Fulton*, 391 F.3d 1195, 1200 (Fed. Cir. 2004) (combination need not be “most desirable”). EX1056 ¶43.

Apple also argues “it would not have been obvious to a POSITA to navigate between two screens using directions that are not parallel *and opposite* directions.” POR, 30 (emphasis in original). Apple relies on Rosenberg’s testimony that Narendra’s system of navigating between two screens using parallel and opposite swipes would have been intuitive. *Id.* (citing EX1003 ¶¶150-151). But Apple does not refute Rosenberg’s testimony that a POSITA would have been motivated to exclude the wake screen from the normal navigational path and to use a different swipe for returning to the wake screen from the home screen. EX1003 ¶109; Pet., 69-70. Specifically, because the wake screen is generally less useful than other screens, a POSITA would have wanted to reduce inadvertent wake-screen access. *Id.* EX1056 ¶44.

In addition, Apple mischaracterizes the Petition’s conceptual graphic of claim 6 as requiring a perpendicular swipe to return to the wake screen from the home screen. POR, 25, 27, 30. Claim 6 does not require such a perpendicular swipe. The Petition’s conceptual graphic is just one example of a finite set of navigational maps embodying claim 6. Another example, shown below, allows a user to return to the wake screen from the home screen using a parallel and opposite swipe.



The graphic above depicts an implementation of Chae’s and Narendra’s fundamental concept of navigating between the wake, home, and widget screens using swipes and the two-dimensional navigation of Narendra’s Figure 9. The wake, home, and widget screens are represented as boxes with solid lines to indicate they are screens required by claim 6. The solid green, blue, and red arrows represent the claimed navigational paths from an origin screen to a destination screen in response to a swipe in the direction of the arrow. Boxes and arrows with dashed lines represent optional screens and navigational paths that could be included in a combination but are not required by claim 6. The navigational map satisfies claim 6 because: (1) a swipe in a first direction navigates from a wake screen to a home screen, (2) a swipe in a second direction navigates from a wake screen to a widget screen, and (3) a

swipe in a fourth direction different from the first and second directions navigates from the home screen back to the wake screen. EX1056 ¶45.

A POSITA would have understood the navigational map illustrated above would achieve the Petition-identified advantage of allowing a user to easily access commonly used screens from the home screen while reducing inadvertent wake-screen access. The user could use left and right swipes to access commonly used screens arranged in the same row as the home screen and use a downward swipe to access the less-frequently accessed wake screen. EX1056 ¶46.

In addition, while not required by claim 6, the above-illustrated navigational map allows a user to return to the wake screen from the home screen by swiping in a direction parallel to and opposite of the direction used to navigate from the wake screen to the home screen. Therefore, Apple is incorrect to suggest that combining Chae and Narendra would necessarily require the fourth swipe for returning to the wake screen to be perpendicular to the first and second swipes for navigating from the wake screen to the home and widget screens. EX1056 ¶47.

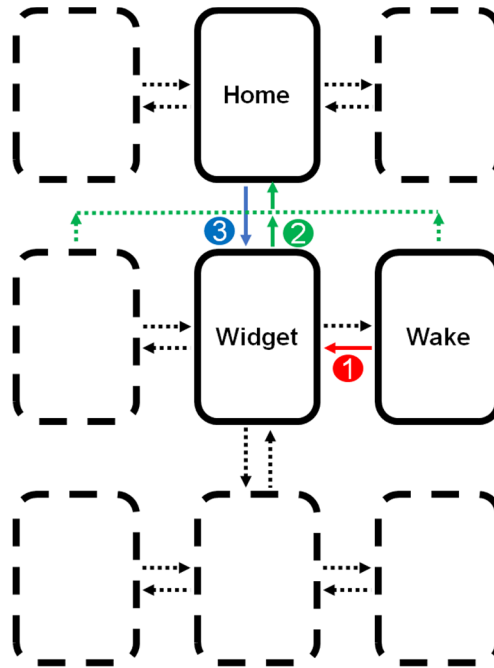
V. OBVIOUSNESS OF CLAIMS 4, 5, 12, 13, 20, AND 21

A. The prior art renders claims 4, 12, and 20 obvious.

Apple first argues these claims are patentable for the same reasons it argues for claims 1, 9, and 17. POR, 35. As shown herein and in the Petition, however, claims 1, 9, and 17 would have been obvious.

Apple next repeats many of the same arguments it made for claim 6, including: (1) the number of combinations of swipe directions and screens is vast, (2) Chae already discloses pre-defined actions for swipes in each of the four cardinal directions, (3) it would not have been obvious to return to a previous screen using a perpendicular, rather than a parallel and opposite, swipe, and (4) a hypothetical combination Apple proposes does not embody claim 4. POR, 35-40. These arguments fail for the same reasons discussed above with respect to claim 6. EX1056 ¶48.

Apple mischaracterizes the Petition's conceptual graphic of claim 4 as requiring a perpendicular swipe to return to the widget screen from the home screen. POR, 36, 38, 40-41. Claim 4 does not require such a perpendicular swipe. EX1057, 139:17-22. The Petition's conceptual graphic is just one example of a finite set of navigational maps embodying claim 4. Another example, shown below, allows a user to return to the widget screen from the home screen using a parallel and opposite swipe.



In the above diagram, the green lines and arrows represent Shuttleworth's teaching of navigating to the home screen using a consistent swipe (*e.g.*, an upward swipe in this example). EX1056 ¶49.

Apple argues returning to the widget screen using a consistent swipe would have been more user-friendly and less confusing than using a different swipe. POR, 41. Apple relies on Rosenberg's testimony that it was a well-known, accepted practice to provide a consistent mechanism to access the *home screen* to enhance efficiency and ease of use. *Id.*, 40-41 (citing EX1003 ¶130). But Apple ignores Rosenberg's further explanation that it was common to use a navigational system, like Narendra's, lacking a dedicated swipe for *non-home screens*. EX1003 ¶¶136. Rosenberg further explained a POSITA would have been motivated to use a dedicated swipe for the home screen but not non-home screens to achieve: (1) the

efficiency of direct **home-screen** access and (2) Narendra’s scalability for **non-home** screens. *Id.* ¶137. EX1056 ¶50.

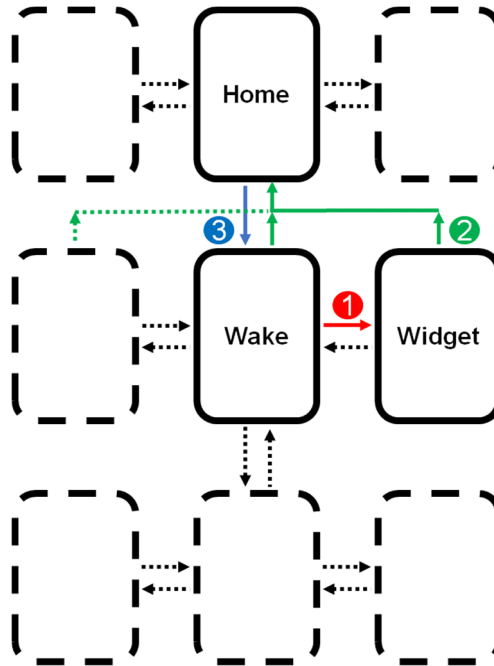
B. The prior art renders claims 5, 13, and 21 obvious.

Apple first argues these claims are patentable for the same reasons it argues for claims 1, 9, and 17. POR, 42. As shown herein and in the Petition, however, claims 1, 9, and 17 would have been obvious.

Apple next repeats many of the same arguments it made for claim 6, including: (1) the number of combinations of swipe directions and screens is vast, (2) Chae already discloses pre-defined actions for swipes in each of the four cardinal directions, (3) it would not have been obvious to return to a previous screen using a perpendicular, rather than a parallel and opposite, swipe, (4) using a button for returning to the wake screen would have been more user friendly and less confusing than using a swipe, and (5) a hypothetical combination Apple proposes does not embody claim 5. POR, 42-48. These arguments fail for the same reasons discussed above with respect to claim 6. EX1056 ¶51.

Apple mischaracterizes the Petition’s conceptual graphic of claim 5 as **requiring** a perpendicular swipe to return to the wake screen from the home screen. POR, 43, 45, 48. Claim 5 does not require such a perpendicular swipe. The Petition’s conceptual graphic is just one example of a finite set of navigational maps

embodying claim 5. Another example, shown below, allows a user to return to the wake screen from the home screen using a parallel and opposite swipe.



EX1056 ¶52.

VI. OBVIOUSNESS OF CLAIMS 2, 3, 7-11, 14-19, AND 22-24

For these claims, Apple relies directly or indirectly on its arguments for claims 1 and/or 6. POR, 24, 31-35, 49. But claims 1 and 6 would have been obvious, as explained above and in the Petition.

VII. SECONDARY CONSIDERATIONS

Apple cites no secondary considerations of non-obviousness.

VIII. CONCLUSION

Claim 1-24 of the '352 patent would have been obvious.

Masimo Corporation v. Apple Inc.
IPR2023-00664 – U.S. Patent No. 11,106,352

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: March 13, 2024

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that foregoing **PETITIONER’S REPLY**, exclusive of the parts exempted as provided in 37 C.F.R. § 42.24(a), contains 5,496 words and therefore complies with the type-volume limitations of 37 C.F.R. § 42.24(a).

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing **PETITIONER’S
REPLY** is being served on March 13, 2024, to the email addresses shown below:

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