

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ALIVECOR, INC.,
Petitioner,

v.

APPLE INC.,
Patent Owner.

IPR2024-00095
Patent 10,568,533 B2

Before JOSIAH C. COCKS, HYUN J. JUNG, and
ROBERT L. KINDER, *Administrative Patent Judges*.

JUNG, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. *Background and Summary*

AliveCor, Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting institution of an *inter partes* review of claims 20–22, 24, 29, and 37 of U.S. Patent No. 10,568,533 B2 (Ex. 1001, “the ’533 patent”). Apple, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”).

Under 35 U.S.C. § 314, an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” Upon consideration of the Petition and for the reasons explained below, we determine that Petitioner has not shown a reasonable likelihood of prevailing with respect to at least one of the challenged claims.

Thus, we do not institute an *inter partes* review of claims 20–22, 24, 29, and 37 of the ’533 patent.

B. *Real Parties in Interest*

Petitioner identifies AliveCor, Inc. as a real party in interest. Pet. 84. Patent Owner identifies Apple Inc. as a real party in interest. Paper 4, 2.

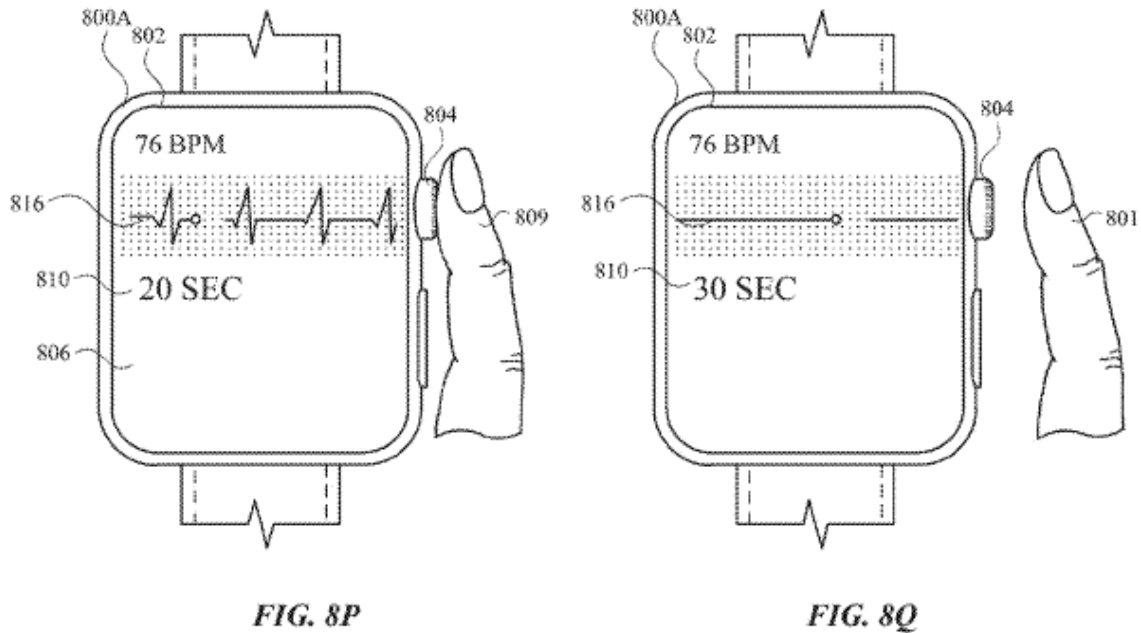
C. *Related Matters*

The parties state that the ’533 patent has been asserted in *Apple Inc. v. AliveCor, Inc.*, 4:22-cv-07608-HSG. Pet. 84; Paper 4, 2. Related patents are challenged in IPR2023-00948, IPR2023-00949, IPR2023-00950, and IPR2023-01434. Pet. 84; Paper 4, 2.

D. *The ’533 Patent (Ex. 1001)*

The ’533 patent issued on February 25, 2020 from an application filed on September 27, 2018 and claims priority to four provisional applications, the earliest of which was filed on March 12, 2018. Ex. 1001, codes (22),

(45), (60), 1:7–26. The '533 patent “relates generally to computer user interfaces, and more specifically to techniques for managing health monitoring.” *Id.* at 1:30–32. Reproduced below are Figures 8P and 8Q of the '533 patent.

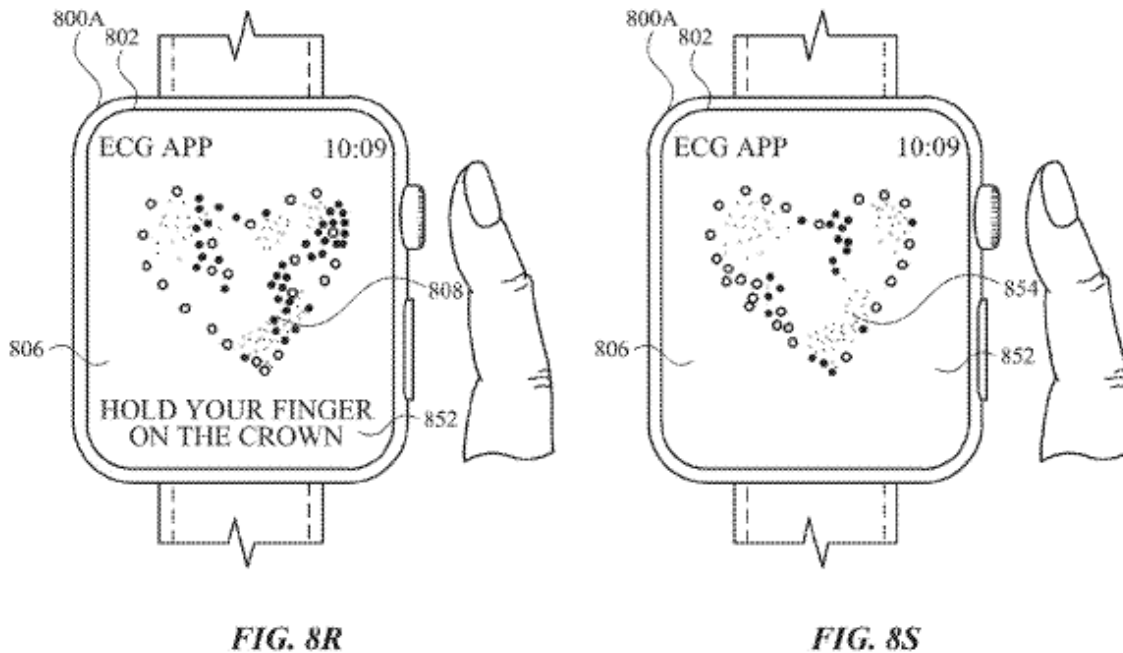


Figures 8P and 8Q “illustrate exemplary user interfaces for recording biometric information for use in health monitoring.” Ex. 1001, 11:13–15. As shown in Figure 8P, first electronic device 800A presents on display 802 user interface 806 of an electrocardiogram (“ECG”) application while recording ECG information from user input 809 on input device 804. *Id.* at 39:2, 64:62–64. Tachogram 816 is a visual illustration of the ECG recording. *Id.* at 65:4–6.

In some embodiments, first electronic device 800A is a smartwatch that includes one or more biometric sensors for recording ECG information. Ex. 1001, 60:31–32, 60:36–38. The sensors can be electrodes integrated in input device 804. *Id.* at 60:37–40.

Figure 8Q shows that detection of user input 809 on input device 804 has been lost. Ex. 1001, 65:7–8. “In some embodiments, in response to (e.g., immediately in response to or within a short period of time, such as 1 second) losing detection of the user input on input device 804, first electronic device 800A resets the ECG recording.” *Id.* at 65:7–12. Resetting can be “indicated by timer 810 (e.g., which now shows ‘30 seconds,’ the full duration of a recording[.]”).” *Id.* at 65:13–15.

Reproduced below are Figures 8R and 8S of the ’533 patent.



First electronic device 800A can transition from the user interface shown in Figure 8Q to the one shown in Figure 8R “upon detecting that the user input on input device 804 has not been restored for a first predetermined period of time (e.g., 2.5 seconds).” Ex. 1001, 65:48–52. As shown in Figure 8R, “first electronic device 800A displays, in user interface 806 of the ECG application, a notification message 852 (e.g., stating ‘Hold your finger on the crown’) requesting that the user restore the input on input device 804.” *Id.* at 65:24–31.

First electronic device 800A can then transition from the user interface of Figure 8R to the one shown in Figure 8S “upon detecting that the user input on input device 804 has not been restored for a second predetermined period of time (e.g., which is the same as or different from the first predetermined period of time) after the first predetermined period of time has passed.” Ex. 1001, 65:52–58.

E. Illustrative Claim

The ’533 patent includes 57 claims, of which Petitioner challenges claims 20–22, 24, 29, and 37. Of the challenged claims, only claim 20, reproduced below, is independent.

20. A non-transitory computer-readable storage medium storing one or more programs configured to be executed by one or more processors of a first electronic device with a display and one or more input devices including a biometric sensor, the one or more programs including instructions for:

displaying, on the display, a first user interface indicating that the first electronic device is ready to detect biometric information;

detecting a first input with the biometric sensor that satisfies first criteria;

in response to detecting the first input with the biometric sensor:

starting to record biometric information detected by the biometric sensor; and

displaying, on the display, a second user interface that is different from the first user interface, wherein the second user interface includes an indication of progress in recording the biometric information;

after recording at least a portion of the biometric information, detecting, via the one or more input devices, that the first criteria are no longer met;

in response to detecting that the first criteria are no longer met for a first period of time, resetting the indication of progress in recording the biometric information and maintaining display of the second user interface; and

in response to detecting that the first criteria are no longer met for a second period of time that is longer than the first period of time, replacing display of the second user interface with the first user interface.

Ex. 1001, 102:12–40.

F. Asserted Prior Art and Proffered Testimonial Evidence

Petitioner identifies the following references as prior art in the asserted grounds of unpatentability:

Name	Reference	Exhibit
Hooper	US 7,111,157 B1, issued Sept. 19, 2006	1007
Nakada	US 7,313,435 B2, issued Dec. 25, 2007	1011
Petterson	US 10,685,090, published Mar. 1, 2018, issued June 16, 2020	1009
Mayor	US 2014/0173521 A1, published June 19, 2014	1012
Albert	US 2015/0073285 A1, published Mar. 12, 2015	1010
Cho	US 2016/0196635 A1, published July 7, 2016	1008
AHIT	CN 106901720A, published June 30, 2017	1006

Petitioner contends that the above-listed references are prior art under, at least, § 102(a). Pet. 6–7 (citing Ex. 1003 ¶¶ 113, 124, 145, 130, 139, 159, 152). Petitioner also provides a Declaration of Craig Rosenberg, Ph.D. (Ex. 1003).

G. Asserted Grounds

Petitioner asserts that claims 20–22, 24, 29, and 37 are unpatentable on the following grounds:

Claims Challenged	35 U.S.C. §	References/Basis
20, 21, 24, 29, 37	103	AHIT, Hooper, Cho
22	103	AHIT, Hooper, Cho, Mayor
20, 21, 24, 29, 37	103	Petterson, Albert, Nakada
22	103	Petterson, Albert, Nakada, Mayor

Pet. 1–2.

II. ANALYSIS

A. Legal Standards

“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent [claim] it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016). This burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). The Board may authorize an *inter partes* review if we determine that the information presented in the Petition shows that there is a reasonable likelihood that Petitioner will prevail with respect to at least one of the claims challenged in the petition. 35 U.S.C. § 314(a).

Petitioner contends that the challenged claims of the ’533 patent are unpatentable under § 103. Pet. 1–2. A claim is unpatentable under § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). When evaluating a combination of teachings, we must also “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Whether a

combination of elements produces a predictable result weighs in the ultimate determination of obviousness. *Id.* at 416–417.

B. Level of Ordinary Skill in the Art

Petitioner argues that a person of ordinary skill in the art would have had “a working knowledge of physiological monitoring technologies and human interface design” and

a Bachelor of Science degree in an academic discipline emphasizing the design of electrical, computer, or software technologies, in combination with training or at least one to two years of related work experience with capture and processing of data or information, including but not limited to physiological monitoring technologies and human interface design.

Pet. 7; Ex. 1003 ¶ 45. Petitioner alternatively argues that a person of ordinary skill in the art “could have also had a Master of Science degree in a relevant academic discipline with less than a year of related work experience in the same discipline” and that “[m]ore education can supplement practical experience and *vice versa*.” *Id.* at 7–8 (citing Ex. 1003 ¶ 45).

Patent Owner does not propose a level of ordinary skill in the art and does not dispute Petitioner’s proposal. *See generally* Prelim. Resp.

We adopt Petitioner’s asserted level of ordinary skill to determine whether there is a reasonable likelihood that Petitioner would prevail with respect to at least one of the claims challenged in the Petition.

C. Claim Construction

In an *inter partes* review, the claims are construed

using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. [§] 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.

37 C.F.R. § 42.100(b) (2021); *see Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

Petitioner argues that claim “terms should receive their respective plain and ordinary meaning as understood by a person of ordinary skill in the art under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005).” Pet. 5; *see also* Prelim. Resp. 5 n.2 (“AliveCor does not propose any express constructions of any claim term.”).

In contending how the references disclose certain claim limitations, Petitioner provides arguments for the meaning or the scope of some claim terms based on the Specification of the ’533 patent and “Apple’s Preliminary Infringement Contentions” that includes a chart comparing claims 20–22, 24, and 37 to “the AliveCor KardiaMobile Card in Conjunction with the Kardia App” (Ex. 1023). Pet. 22, 30, 33, 52, 56, 61, 66.

For example, Petitioner argues that the ’533 patent describes “‘first input’ as ‘a touch or contact on the input device that is below a threshold amount such that the input does not “click” the input device,’ and/or ‘a continuous touch or contact on the input device.’” Pet. 22 (citing Ex. 1001, 61:8–11, 61:32–33; Ex. 1003 ¶ 205). Petitioner also contends that Patent Owner “does not indicate what the ‘first input’ is but appears to equate contact between a user’s skin and the electrodes with the first input.” *Id.* (citing Ex. 1003 ¶ 205; Ex. 1023, 15).

Regarding “first criteria,” Petitioner argues that the ’533 patent “explain[s] that ‘the first input with the biometric sensor’ ‘satisfies the first criteria when a contact (e.g., from a finger of a user) is detected on the biometric sensor.’” Pet. 22 (citing Ex. 1001, 67:16–20; Ex. 1003 ¶ 206); *see also id.* at 56 (citing Ex. 1001, 67:16–20, 76:9–13; Ex. 1003 ¶ 338).

Petitioner also argues that “‘first criteria are met’ when ‘the device has

captured less than a predetermined amount of biometric information’ and/or ‘the first input device has been activated within at least a threshold amount of time, such as 5 seconds.’” *Id.* at 22 (citing Ex. 1001, 76:9–13; Ex. 1003 ¶ 206). According to Petitioner, Patent Owner indicates that examples would “include the KardiaMobile Card being powered on, a stable connection between a user’s skin and the electrodes, a wireless connection between the KardiaMobile Card and the Kardia App, and the lack of electrical interference.” *Id.* (citing Ex. 1003 ¶ 207; Ex. 1023, 15); *see also id.* at 56 (citing Ex. 1003 ¶¶ 337, 339; Ex. 1023, 15).

For a “first period of time,” Petitioner argues that the ’533 patent “provid[es] an example of the ‘first period of time’ as ‘5 seconds.’” Pet. 30 (citing Ex. 1001, 67:58–59; Ex. 1003 ¶ 235); *see also id.* at 66 (citing Ex. 1001, 67:58–59; Ex. 1003 ¶ 369). Petitioner also argues that Patent Owner indicated that “‘if the AliveCor Products detect a loss of connection within ten seconds, they determine that ‘the first criteria are no longer met.’”” *Id.* at 30 (citing Ex. 1003 ¶ 236; Ex. 1023, 27); *see also id.* at 66 (citing Ex. 1003 ¶ 370; Ex. 1023, 27).

For a “second period of time,” Petitioner contends that the ’533 patent “provid[es] an example of the ‘second period of time’ to be ‘longer than the first period of time (e.g., longer than 5 seconds).’” Pet. 33 (citing Ex. 1001, 68:14–16; Ex. 1003 ¶ 246). Petitioner further contends that Patent Owner apparently “equat[es] the ‘second period of time’ to be any duration of time that extends beyond completion of the ‘first period of time.’” *Id.* (citing Ex. 1003 ¶ 247; Ex. 1023, 31).

For “a first user interface indicating that the first electronic device is ready to detect biometric information,” Petitioner argues that one of ordinary skill in the art would have understood that, based on the ’533 patent, “an

indication the device is ready to detect biometric information could be a button or a selectable element that allows a user to activate a measurement.” Pet. 52 (citing Ex. 1003 ¶ 326; Ex. 1023, 14). Petitioner also provides Patent Owner’s contention regarding a display of a user interface that indicates that an electronic device is ready to detect biometric information. *Id.* at 52–53 (citing Ex. 1003 ¶ 326; Ex. 1023, 14).

For an “indication of progress,” Petitioner reproduces Patent Owner’s infringement contention and argues that an asserted reference shows a similar “indication of progress.” Pet. 61–62 (citing Ex. 1003 ¶ 358; Ex. 1023, 28).

For our analysis below, we apply Petitioner’s understanding of “first input,” “first criteria,” “first period of time,” “second period of time,” “first user interface indicating that the first electronic device is ready to detect biometric information,” and “indication of progress” to determine whether there is a reasonable likelihood that Petitioner would prevail with respect to at least one of the challenged claims. Pet. 22, 30, 33, 52–53, 61–62.

Patent Owner argues that “[t]he claims of the ’533 Patent require specific types of user interfaces to record biometric information.” Prelim. Resp. 3 (citing Ex. 1001, 102:12–40 (claim 20)). Patent Owner also argues that

[t]hrough antecedent basis, the “replacing” requirement . . . requires a specific type of “replac[ement]” under plain meaning—replacing display of a “second user interface” that “includes an indication of progress in recording the biometric information” . . . with a “first user interface indicating that [a] first electronic device is ready to detect biometric information.”

Id. at 5. According to Patent Owner, “the ‘replacing’ requirement specifically requires replacing a user interface containing the ‘indication of

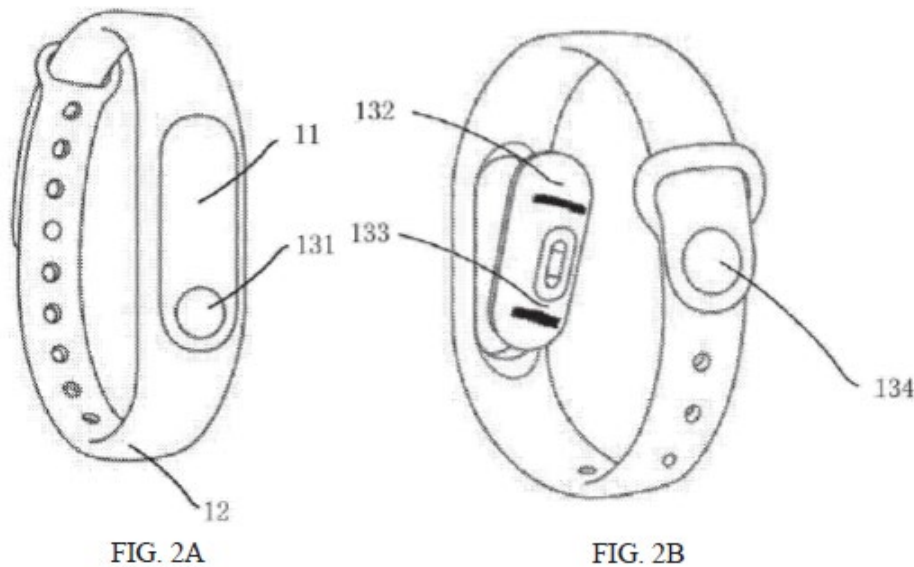
progress’ with a different user interface that ‘indicat[es] that [a] first electronic device is ready to detect biometric information.’” *Id.* Patent Owner’s contentions are addressed below.

We determine that no other claim term requires express interpretation. *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms that . . . are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

D. Asserted Obviousness Based on AHIT, Hooper, and Cho

1. AHIT (Ex. 1006)

AHIT “provides a method, an apparatus, and a wearable device for collecting electrocardiogram (ECG) data.” Ex. 1006, Abstract. Figures 2A and 2B of AHIT are below reproduced.



Figures 2A and 2B are “structural” views of a wearable device. AHIT’s wearable device includes body portion 11, wristband portion 12, first ECG sensor electrode 131 on one side of body portion 11, second and third ECG sensor electrodes 132, 133 on the other side of body portion 11,

and fourth ECG sensor electrode 134 on an outer side of wristband portion 12. Ex. 1006 ¶ 34.

AHIT's wearable device also includes "a processor," "a memory for storing instructions executable by the processor," "a collecting module configured to collect, if the receiving and identifying module identifies the trigger action to be a preset operation, ECG data," and "a button" that can "multiplex one of the multiple ECG sensor electrodes." Ex. 1006 ¶¶ 13–15, 32, 34. The trigger action can be performed by the user on the button. *Id.* ¶ 36.

"[I]f the wearable device comprises a screen, then when collecting ECG data, the wearable device may display a preset icon via the screen" that "prompt[s] the user that collecting [of] the ECG data has been started, or may display a progress of collecting the ECG data via the screen." Ex. 1006 ¶ 39; *see also id.* ¶¶ 81–82 (describing a wearable device with a screen). By doing so, "a user is enabled to learn whether his/her operations are correct, and promptly correct his/her mistakes during incorrect operations, for example, re-touching the electrode." *Id.* ¶ 39.

AHIT can "detect[] states of ECG sensor electrodes corresponding to the current ECG data." Ex. 1006 ¶ 47. "[I]f the state of any one of the ECG sensor electrodes is a detached state, then [AHIT] determin[es] that the current ECG data is invalid ECG data." *Id.* "[I]f the states of all the corresponding ECG sensor electrodes are a normal state, then [AHIT] determin[es] that the current ECG data is valid ECG data." *Id.*

"[B]y counting a collecting duration, continuing to collect ECG data when the collecting duration does not reach the preset threshold, and stopping collecting ECG data when the collecting duration reaches the preset threshold," AHIT "obtain[s] a desired amount of ECG data without wasting

the wearable device resources.” Ex. 1006 ¶ 56. “[I]f the user’s finger leaves the ECG sensor electrode during the process of collecting ECG data, no closed-loop path will be formed between the ECG sensor electrodes,” “the collection of ECG data is stopped, and the collected ECG data is stored.” *Id.* ¶ 62.

2. *Hooper (Ex. 1007)*

Hooper particularly relates “to an apparatus and method for spurious input detection and handling.” Ex. 1007, 1:14–16. According to Hooper, “a need exists for a system and method for detecting and handling an interrupt signal such that system operation is not impaired.” *Id.* at 2:15–17.

In Hooper, “interrupt signals are detected and handled such that system operation is not indefinitely suspended.” Ex. 1007, 2:22–24. “The data processing device prompts for an input command,” and “[a]fter the expiration of a first time period, the data processing device presents a user message if the data processing device does not receive a valid input command during the first time period.” *Id.* at 2:27–31. “The data processing device resumes initialization or resets after expiration of a second time period if the data processing device does not receive a valid input command during the second time period.” *Id.* at 2:31–35.

Hooper’s data processing device can activate a keystroke timeout and command timeout to “ceas[e] operation of an incomplete task in response to receiving an interrupt signal.” Ex. 1007, 2:41–45. “The data processing device presents a user message at a first termination of either the keystroke timeout or the command timeout and resumes initialization or resets at a second termination of either the keystroke timeout or the command timeout.” *Id.* at 2:50–54. In another embodiment, “[t]he data processing device resumes initialization of the hardware device after expiration of a

second time period if the data processing device does not receive a keystroke within the second time period.” *Id.* at 2:66–3:3. “If the data processing device does not receive a keystroke during the second time period and a user message has been previously presented, the data processing device resumes initialization or resets the data processing device after expiration of the second time period.” *Id.* at 3:8–13.

3. *Cho (Ex. 1008)*

Cho “relates to adaptively displaying information” “for enhancing degree of understanding of information and improving visibility for displayed information by more dynamically displaying user related information.” Ex. 1008 ¶¶ 2, 6. Figure 3A of Cho is below reproduced.

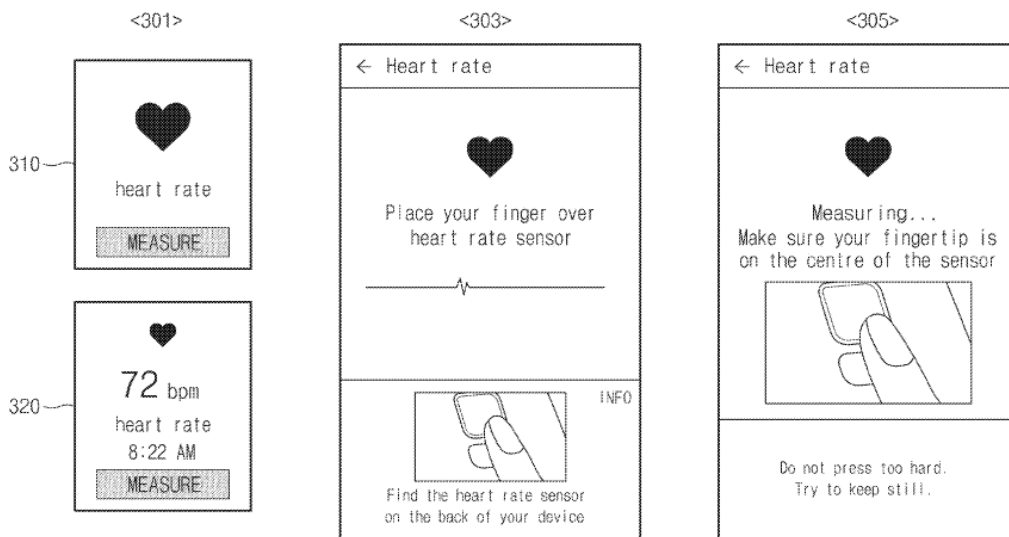


FIG. 3A

Figure 3A shows “a screen interface associated with preparing for measuring biometric information.” Ex. 1008 ¶ 14. “If the biometric sensor is operated, the electronic device 100 may additionally perform a process of determining whether a corresponding condition is a normal measurement condition” and “may provide different guides according to a situation.” *Id.*

¶ 114. If a measurement cannot be made “because a human body (e.g., a finger) of a user is not in normal contact with the biometric sensor . . . , in state 303, the electronic device 100 may display guide information for guiding the user to bring his or her body [in contact] with the biometric sensor.” *Id.* Figure 3B of Cho is below reproduced.

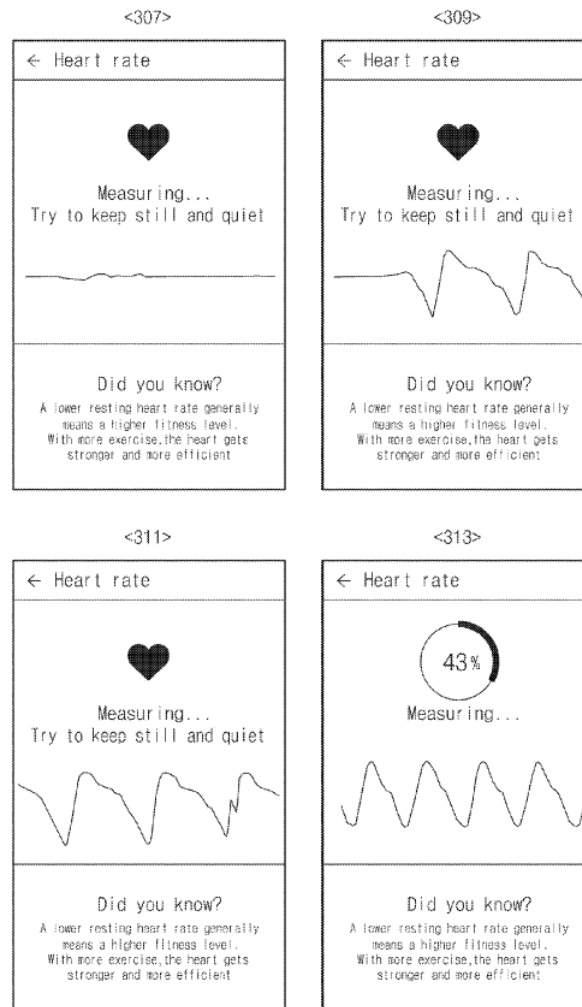


FIG. 3B

Figure 3B shows “a screen interface associated with measuring biometric information.” Ex. 1008 ¶ 15. “In state 313, the electronic device 100 may display a progress rate of processing received biometric signal information . . . during a biometric information measurement time.” *Id.* ¶ 125. For example, “a waveform may be a waveform associated with a

currently measured biometric signal.” *Id.* “Therefore, the electronic device 100 may maintain dynamic information recognition, while reducing a calculation burden in a process of displaying biometric information.” *Id.*

4. *Independent Claim 20*

Petitioner argues that AHIT teaches, suggests, or would have been understood to disclose substantially all the limitations of independent claim 20 with citations to the record. Pet. 18–35. Petitioner also argues that, to the extent one of ordinary skill in the art would have sought additional implementation details, such an ordinarily skilled artisan would have turned to Hooper so that the proposed combination would have included a user interface to indicate a device was ready to detect biometric information and a second time period for detecting criteria and, at its expiration, resume initialization or reset. *Id.* at 21, 34–35. Petitioner relies on Cho to argue that its proposed combination would have included a user interface with an indication of progress in recording the biometric information and would have been able to detect when the user is not in contact with a biometric sensor. *Id.* at 26–27, 28–29.

- a) *“displaying, on the display, a first user interface indicating that the first electronic device is ready to detect biometric information”*

Specifically, for above-quoted limitation, Petitioner argues that AHIT discloses detecting biometric information upon receiving a trigger action. Pet. 19 (citing Ex. 1003 ¶ 196; Ex. 1006 ¶¶ 40, 59). Petitioner also argues that, when AHIT is collecting ECG data, its “wearable device may display a preset icon” on its screen to indicate ECG data collection has started. *Id.* at 19–20 (citing Ex. 1003 ¶¶ 197, 198; Ex. 1006 ¶¶ 39, 81–82, Fig. 7). According to Petitioner, one of ordinary skill in the art would have

understood that AHIT's wearable device displays a first user interface indicating that the device is ready to detect biometric information "because the user would need to be informed that the trigger action could be effectively received by the device." *Id.* at 20–21 (citing Ex. 1003 ¶ 199).

Insufficient argument and evidence, however, support that one of ordinary skill in the art would have understood that AHIT teaches or suggests "a first user interface indicating that the first electronic device is ready to detect biometric information." Pet. 20–21. Petitioner cites to no part of AHIT that would have been understood to disclose the recited "first user interface." *See id.*

Based on our review, AHIT does not describe or suggest any interface that would have "indicat[ed] that the first electronic device is ready to detect biometric information," as required by claim 20. As Petitioner points out, AHIT describes that

if the wearable device comprises a screen, then when collecting ECG data, the wearable device may display a preset icon via the screen . . . , so as to prompt the user that collecting the ECG data has been started, or may display a progress of collecting the ECG data via the screen.

Ex. 1006 ¶ 39.

We agree with Patent Owner that the display with the "'preset icon' is only displayed 'when collecting ECG data' after a 'trigger action' performed by a user has been detected" (Prelim. Resp. 9 (citing Ex. 1006 ¶¶ 38–39)), and so that displaying of the preset icon cannot indicate that AHIT's device is ready to detect biometric information (*see* Ex. 1006 ¶ 39). AHIT's displaying of a preset icon on its screen, thus, fails to teach or suggest "a first user interface indicating that the first electronic device is ready to detect

biometric information,” because the display of a preset icon occurs after biometric information is being collected. *Id.*

For support that AHIT would have been understood to display the required “first user interface,” Petitioner only points us to its testimonial evidence; however, the cited testimony is substantively the same as the argument presented in the Petition with no additional citations to the record that indicate that one of ordinary skill in the art would have understood AHIT to disclose the recited “first user interface.” *Compare* Pet. 20–21, *with* Ex. 1003 ¶ 199 (citing nothing in the record).

Moreover, in its argument regarding the recited “second user interface,” Petitioner contends that “the display of a preset icon via the screen is a different interface (e.g., a first user interface) from the display of progress of collecting the ECG data via the screen (e.g., a second user interface).” Pet. 25–26 (citing Ex. 1003 ¶ 222). Petitioner clearly equates AHIT’s display with a preset icon to the “first user interface,” which is different from its previous argument that one of ordinary skill in the art “would have understood that a screen, and certainly a screen with the disclosed prompt of *AHIT*’s wearable device, would have displayed a first user interface indicating that the wearable device was ready to detect biometric information” and “that the first user interface was displayed to inform the user, prior to the collection of the ECG data, that the device was ready to collect ECG data because the user would need to be informed that the trigger action could be effectively received by the device.” *Compare id.* at 20–21, *with id.* at 25–26.

The cited testimonial evidence also opines that “the person of ordinary skill in the art would have understood that the *AHIT* user interface would transition from a preset icon (e.g., a first user interface) to a display of

progress (e.g., a second user interface) once recording began.” Ex. 1003

¶ 222. Petitioner’s declarant also equates AHIT’s display of a preset icon with the first user interface, which contradicts AHIT’s disclosure that “when collecting ECG data, the wearable device may display a preset icon via the screen.” Ex. 1006 ¶ 39. We, therefore, give little weight to the opinion of Petitioner’s declarant regarding the “first user interface” because it does not make clear what teaches, suggests, or would have been understood to disclose the “first user interface” and conflicts with what AHIT describes. *Compare* Ex. 1003 ¶ 199, *with id.* ¶ 222 *and* Ex. 1006 ¶ 39.

Petitioner alternatively argues that, to the extent one of ordinary skill in the art would have sought additional details for implementing AHIT’s user interface, such an ordinarily skilled artisan would have turned to Hooper which discloses displaying a user interface to indicate a device was ready to detect information or prompt a user for an action to proceed. Pet. 21 (citing Ex. 1003 ¶¶ 200, 201; Ex. 1007, 2:25–37, 5:11–17).

Petitioner, however, relies on portions of Hooper that insufficiently teach or suggest “a first user interface indicating that the first electronic device is ready to detect biometric information.” The cited portions of Hooper describe device initialization being interrupted and seeking user input after receiving an interrupt signal. Ex. 1007, 2:25–37, 5:11–17. The cited portions do not disclose a user interface indicating that a device is ready to detect biometric information. *Id.*

The relied-upon portions of Hooper, at best, describe an interface indicating that its device is ready to accept user command and cannot continue initialization without user intervention. Ex. 1007, 2:25–37, 5:11–17. The cited portions do not describe an interface indicating that the device is ready to detect information, such as biometric information, because the

device cannot initialize properly or its operation has been interrupted. *See id.* at 2:25–37, 5:11–17.

Petitioner also contends that one of ordinary skill in the art would have viewed Hooper’s request for user intervention as an indication that its device was ready. Pet. 21 (citing Ex. 1003 ¶¶ 200, 201; Ex. 1007, 2:25–37, 5:11–17). As discussed above, the cited portions of Hooper do not support that argument. Ex. 1007, 2:25–37, 5:11–17.

The cited testimonial evidence also opines that “a person of ordinary skill in the art would have understood that *Hooper* was providing a prompt for an input command as a signal to the user that the device is ready to receive input” but does not explain further why Hooper’s prompt also indicates that its device is ready to detect information. Ex. 1003 ¶ 201. The testimony also implies user input is a type of detected information, but Petitioner does not provide an interpretation of “ready to detect biometric information” that would include, for example, Hooper’s user input. *See* Pet. 5. Moreover, Petitioner’s proposed combination with Hooper’s prompt for user input appears to result in a feature that AHIT already describes, its “trigger action.” Pet. 21; Ex. 1006 ¶¶ 34, 36.

As discussed above, Petitioner insufficiently shows that AHIT teaches or suggests a user interface indicating that its device is ready to detect biometric information. Petitioner also insufficiently shows that Hooper describes an interface indicating that a device is ready to detect information because, as discussed above, Hooper describes seeking user input after an interrupt signal. Petitioner’s cited testimonial evidence also fails to show sufficiently that one of ordinary skill in the art would have applied Hooper to AHIT so that the proposed combination would have included the required “first interface” because we determine that neither reference describes the

recited “first interface” to support the asserted reason to combine. Ex. 1003 ¶¶ 200, 201.

For the same reasons above, Petitioner insufficiently shows that the proposed combination “relies on known solutions to improve similar systems and methods in the same way” and that one of ordinary skill in the art would have known implementing Hooper and Cho in AHIT “would have led to [the] predictable result of an ECG test that included the suggested prompts and time limits.” Pet. 17.

- b) *“in response to detecting that the first criteria are no longer met for a second period of time that is longer than the first period of time, replacing display of the second user interface with the first user interface”*

For the above-quoted limitation, Petitioner acknowledges that “AHIT does not explicitly teach replacing a display in response to detecting that the first criteria are no longer met for a second period of time” but argues that “such a change in the display would have been obvious” because of “AHIT’s explicit goal of promptly notifying the user and saving wearable device resources.” Pet. 33 (citing Ex. 1003 ¶ 248; Ex. 1006 ¶¶ 39, 56).

We agree with Petitioner that AHIT does not teach or suggest “in response to detecting that the first criteria are no longer met for a second period of time that is longer than the first period of time, replacing display of the second user interface with the first user interface.” Pet. 33; Ex. 1003 ¶ 248.

Petitioner also argues that, to the extent that a person of ordinary skill in the art would have sought additional implementation details about replacing a display after a second period of time, such a person would have turned to Hooper which discloses a second period of time for detecting criteria and, at its expiration, a device resumes initialization. Pet. 34 (citing

Ex. 1003 ¶ 249; Ex. 1007, 2:22–3:3, 6:15–25, Fig. 2). According to Petitioner, one of ordinary skill in the art would have understood that resuming initialization, or resetting, would replace the display and it would have been obvious “to revert to the first user interface after the first input was no longer detected for a second period of time.” *Id.* at 34–35 (citing Ex. 1003 ¶¶ 248, 250; Ex. 1007, Fig. 2).

In its asserted motivation to combine, Petitioner similarly argues that Hooper discloses restarting a program, resuming initialization, and resetting or continuing operations after a second period of time expires if a keystroke or command is not received. Pet. 15–16 (citing Ex. 1003 ¶ 181; Ex. 1007, 2:22–3:13, 6:15–25, Fig. 2). Petitioner also argues that one of ordinary skill in the art “would have understood that resuming initialization or resetting the data processing device would replace the information displayed on the user interface so as to guide the user through the process.” *Id.* at 16 (citing Ex. 1003 ¶ 181).

Petitioner, however, provides insufficient argument and evidence that resuming initialization or resetting the data processing device would revert to a first user interface after the first input was no longer detected for a second period of time or replace the information displayed on the user interface. Pet. 16, 34. As implicitly acknowledged by Petitioner, the cited portions of Hooper do not describe replacing displayed information. *See* Pet. 16, 34; Ex. 1007, 2:22–3:13, 6:15–25, Fig. 2.

The cited testimonial evidence also does not cite to any part of the record that would tend to support the opinion that a “person of ordinary skill in the art would have understood that resuming initialization or resetting the data processing device would replace the display” (Ex. 1003 ¶ 181), a “person of ordinary skill in the art would have understood that resuming

initialization or resetting the data processing device would replace the display” (*id.* ¶ 249), and “it would have been obvious to a person of ordinary skill in the art to revert to the first user interface after the first input was no longer detected for a second period of time” (*id.* ¶ 250). Petitioner’s declarant also does not explain why “a change in the display would have been obvious to a person of ordinary skill in the art in view of *AHIT*’s explicit goal of saving wearable device resources.” *Id.* ¶ 248. Petitioner does not argue adequately or cite sufficient evidence that changing from one user interface to another would have saved wearable device resources. Pet. 34; Ex. 1003 ¶ 248.

As discussed previously, Petitioner does not provide sufficient argument and evidence that its proposed combination would have had “a first user interface indicating that the first electronic device is ready to detect biometric information.” Even if Petitioner did adequately show that its proposed combination would have had the required first user interface, Petitioner fails to show with sufficient argument and evidence that its proposed combination would have “replac[ed] display of the second user interface with the first user interface,” for the above-discussed reasons.

c) Petitioner Fails to Show a Reasonable Likelihood of Prevailing in its Challenge to Claim 20

Because Petitioner fails to show sufficiently that *AHIT*, Hooper, and Cho teach or suggest “a first user interface indicating that the first electronic device is ready to detect biometric information” and “replacing display of the second user interface with the first user interface,” Petitioner fails to show a reasonable likelihood of prevailing in its challenge to claim 20.

5. *Dependent Claims 21, 24, 29, and 37*

Claims 21, 24, 29, and 37 depend directly from claim 20. Ex. 1001, 102:41–45, 102:63–67, 103:32–38, 104:30–32. Claim 21 recites “wherein the recorded biometric information includes an electrocardiogram recording derived from the biometric information detected by the biometric sensor,” and claim 24 recites “wherein the biometric sensor is a contact-based sensor, and wherein the first input with the biometric sensor satisfies the first criteria when a contact is detected on the biometric sensor.” *Id.* at 102:41–45, 102:63–67.

Claim 29 recites “wherein the second user interface includes a graphical representation that corresponds to a visualization of the biometric information from the recorded biometric information and a timer indicating the amount of time remaining to complete the recording of the biometric information,” and claim 37 recites “wherein the indication of progress is a countdown timer.” Ex. 1001, 103:32–38, 104:30–32.

Petitioner argues with citations to the record that AHIT discloses the limitations of claims 21 and 24, that AHIT and Cho disclose the limitations of claim 29, and that AHIT and Hooper disclose the limitations of claim 37. Pet. 36–40.

a) *Petitioner Fails to Show a Reasonable Likelihood of Prevailing in its Challenge to Claims 21, 24, 29, and 37*

Petitioner’s arguments for dependent claims 21, 24, 29, and 37 do not remedy the above discussed deficiencies regarding “a first user interface indicating that the first electronic device is ready to detect biometric information” and “replacing display of the second user interface with the first user interface,” as recited by independent claim 20.

Thus, for the reasons discussed for claim 20, Petitioner does not show a reasonable likelihood of prevailing in its challenge to claims 21, 24, 29, and 37, which depend from claim 20, based on AHIT, Hooper, and Cho.

E. Asserted Obviousness Based on AHIT, Hooper, Cho, and Mayor

1. Mayor (Ex. 1012)

Mayor “relates to invocation of software applications.” Ex. 1012 ¶ 1. According to Mayor, “[r]equiring a user to make multiple menu selections to access a desired user interface can waste time and cause frustration for the user.” *Id.* ¶ 2. In Mayor, “a shortcut can be created that allows a user to directly access a graphical user interface or sub screen of an application.” *Id.* ¶ 3.

Mayor’s “graphical user interface 100 for invoking applications on a mobile device” may be “an interface of an operating system running on the mobile device” or the “home screen” and “can include graphical objects 102 and 104 for invoking respective applications.” Ex. 1012 ¶ 21, Fig. 1. “[G]raphical objects 102 and 104 can be icons or images that, when selected by a user, cause invocation of a corresponding application that is installed on the mobile device.” *Id.* ¶ 21.

Mayor’s “user can select graphical object 608 to create a shortcut to” a graphical user interface (“GUI”) 600. Ex. 1012 ¶ 29, Fig. 6. “[T]he shortcut can allow the user to bypass displaying graphical user interfaces that would normally be displayed before invoking GUI 600.” *Id.* ¶ 29. The GUI can include the shortcut(s). *Id.* ¶ 36, Fig. 9.

2. Dependent Claim 22

Claim 22 depends from claim 20 and recites

prior to displaying the first user interface, displaying a homescreen that includes an application affordance corresponding to a health monitoring application;

detecting, via the one or more input devices, a user activation of the application affordance; and

in response to detecting the user activation of the application affordance, displaying, on the display, the first user interface.

Ex. 1001, 102:46–56.

Petitioner argues with citations to the record that AHIT and Mayor teach the limitations of claim 22. Pet. 41–45. Petitioner also argues with citations to the record that one of ordinary skill in the art would have combined Mayor with AHIT as modified by Hooper and Cho to provide a more convenient access to several applications by creating icons as taught by Mayor. *Id.* at 40–41.

3. *Petitioner Fails to Show a Reasonable Likelihood of Prevailing in its Challenge to Claim 22*

Petitioner’s arguments for dependent claim 22 do not remedy the above discussed deficiencies regarding “a first user interface indicating that the first electronic device is ready to detect biometric information” and “replacing display of the second user interface with the first user interface,” as recited by independent claim 20.

Thus, for the reasons discussed for claim 20, Petitioner does not show a reasonable likelihood of prevailing in its challenge to claim 22, which depends from claim 20, based on AHIT, Hooper, Cho, and Mayor.

F. *Asserted Obviousness Based on Petterson, Albert, and Nakada*

1. *Petterson (Ex. 1009)*

According to Petterson, “[t]he use of smartphones, tablet computers, wearable computers, and ‘smart’ accessories is becoming increasingly

prevalent” and that “[h]eart rate measurement, blood pressure measurement, and electrocardiography are widely used techniques for diagnosing the cardiovascular health of a patient.” Ex. 1009, 1:12–14, 1:24–27. Petterson describes “a platform comprising: a patient application comprising: a software module for receiving sensed data from a sensor configured to sense a physiologic parameter of a patient,” and the sensor can be “configured to operably couple with a mobile computing device,” can be “integrated with the mobile computing device,” and can “comprise[] two ECG electrodes.” *Id.* at 1:38–41, 1:67–2:5.

The “patient application is configured to receive, organize, and/or track patient data including sensed physiologic parameters” such as “receive a sensed ECG of a patient.” Ex. 1009, 6:64–7:3. The “patient application comprises one or more interfaces (e.g. a graphical interface, an audio interface, a video interface)” that “enable the patient to: for example, obtain physiological information from a sensing device or from other health-based software applications.” *Id.* at 7:55–61. Figure 2B of Petterson is below reproduced.

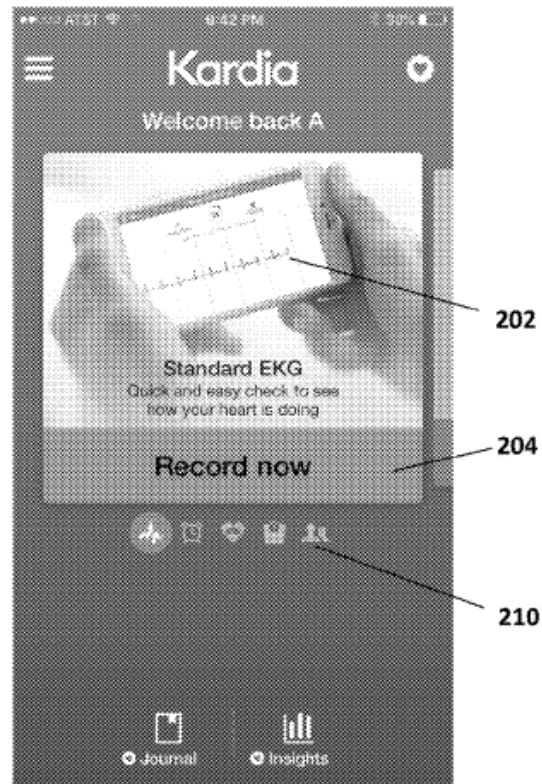


FIG. 2B

Figure 2B shows “patient interface component 204 that provides the patient with the ability to select to record an ECG . . . , for example, an ECG sensing device 200 that is configured to interact with the software application.” Ex. 1009, 9:9–13. “[P]atient interface comprises a dashboard 210 and/or interface 204, which the patient engages with in order to carry out a task such as sense, for example, one or more physiologic parameters using a sensing device.” *Id.* at 9:16–20. “First sensing device 200 comprises a smartphone operably coupled to one or more ECG electrodes (not shown).” *Id.* at 9:27–29. Figure 3 of Petterson is below reproduced.

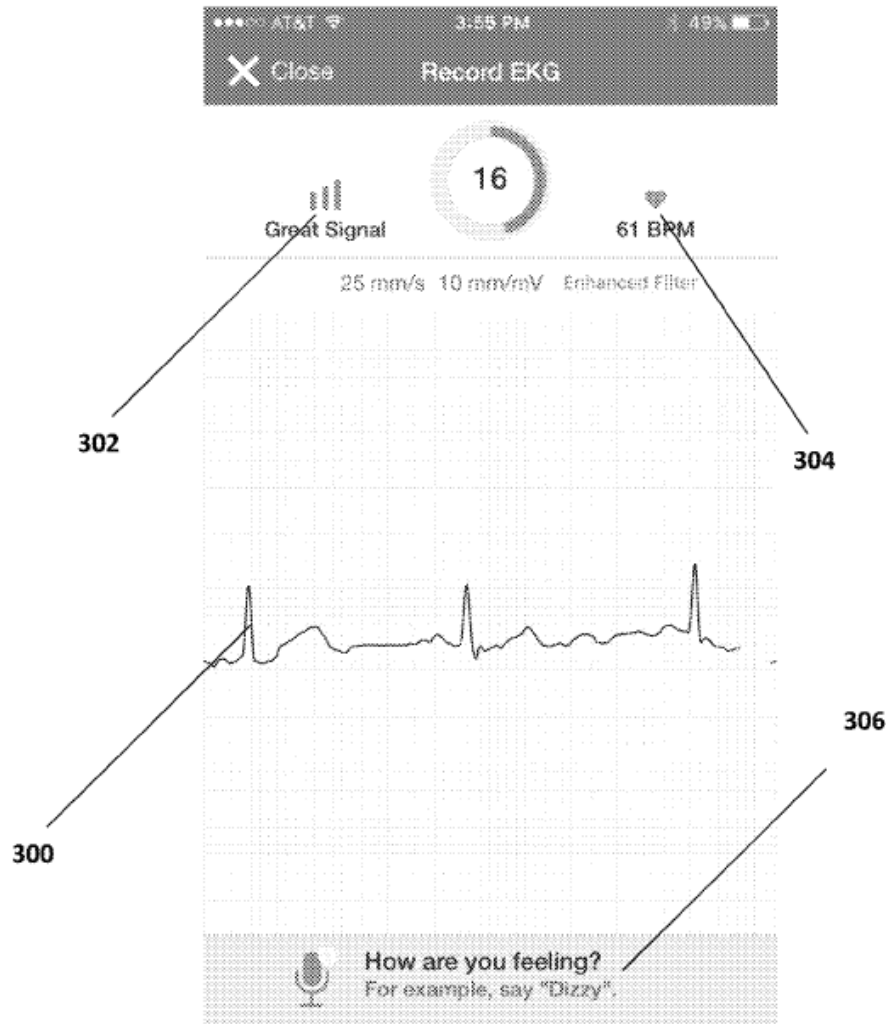


FIG. 3

Figure 3 “shows a screenshot of an exemplary patient interface a patient encounters during the sensing of an ECG—displayed on the interface at 300—using an ECG sensing device.” Ex. 1009, 9:38–41. “The patient application may instruct the patient to place a cardiac health monitoring device in contact with his or her skin, and take a baseline ECG measurement.” *Id.* at 12:44–46. “The patient interface may also display an ECG at 300 . . . over a period of time,” and “may be displayed graphically or textually.” *Id.* at 10:13–16. A healthcare provider can transmit a congratulatory message for completing a care plan. *Id.* at 13:4–13.

2. *Albert (Ex. 1010)*

Albert describes “detecting biological signals such as electrocardiograms (ECGs),” particularly, “ECG sensing devices for use with mobile telecommunications devices such as smartphones, tablet computers, smart watches, wearable computing devices, and the like” that “may receive biological signals measured directly from a patient.” Ex. 1010 ¶ 6. ECG sensing system 2000 includes mobile computing device 2001 with display 2004 that can display an ECG wave and base unit 2002. *Id.* ¶ 142, Fig. 20.

An “ECG electrode module portion of the apparatus may communicate information wirelessly to the mobile telecommunications device” and “may send information to a mobile telecommunications device that has been configured (e.g., by operating a program, applications (‘app’), or the like) to receive and analyze information from the apparatus.” Ex. 1010 ¶ 91. The “ECG electrode module . . . includes two or more electrodes” that are “configured to be contacted by or to a patient/subject to sense an ECG signal.” *Id.* ¶ 98.

Albert also describes “methods of connecting a universal ECG electrode module to a mobile telecommunications device using a base unit, and methods of using the universal ECG module to detect and transmit ECG data.” *Id.* ¶ 89. Figure 19 of Albert is below reproduced.

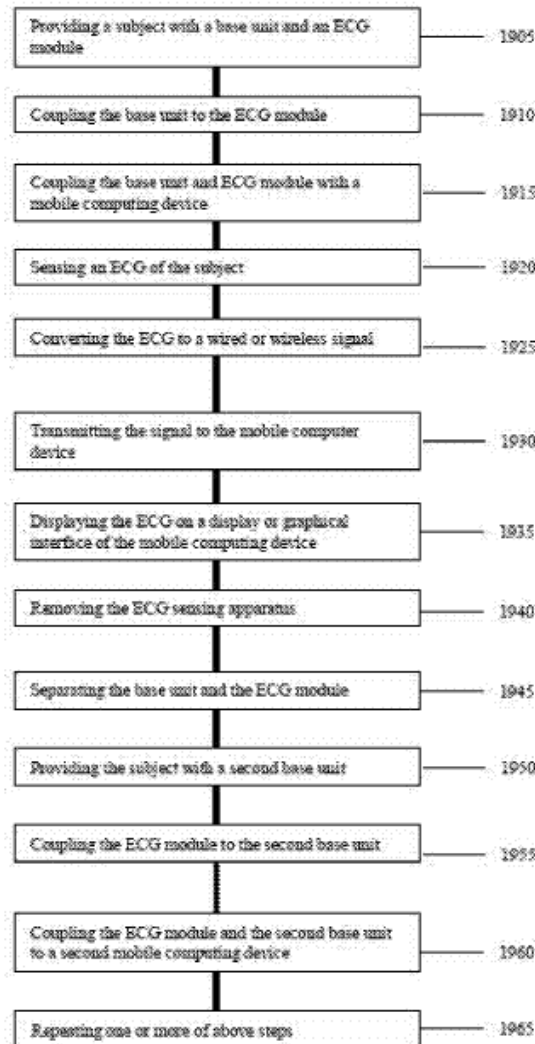


FIG. 19

Figure 19 shows “a schematic representation of a method for sensing an ECG of a subject.” Ex. 1010 ¶ 85. “In a step 1920, the first mobile computing device coupled with the first ECG sensing device may be used to sense an ECG of the subject.” *Id.* ¶ 131. “In a step 1925, the sensed ECG may be converted to a wired or wireless signal by the ECG module.” *Id.* ¶ 132. “In a step 1930, the signal may be transmitted to the mobile computing device,” either wirelessly or by wired connection. *Id.* ¶ 133. “In

a step 1935, the ECG may be displayed by a display and/or graphical user interface of the computing device” that “may store the ECG, generate a diagnosis or analysis of the ECG to provide to the subject, and/or send the ECG and/or diagnosis or analysis to a remote server,” such as through the Internet. *Id.* ¶ 134.

3. *Nakada (Ex. 1011)*

Nakada “relates to a technique for determining the contact condition of electrodes in an apparatus which calculates the composition of a body by measuring a bioelectrical impedance.” Ex. 1011, 1:7–10. Figure 4 of Nakada is below reproduced.

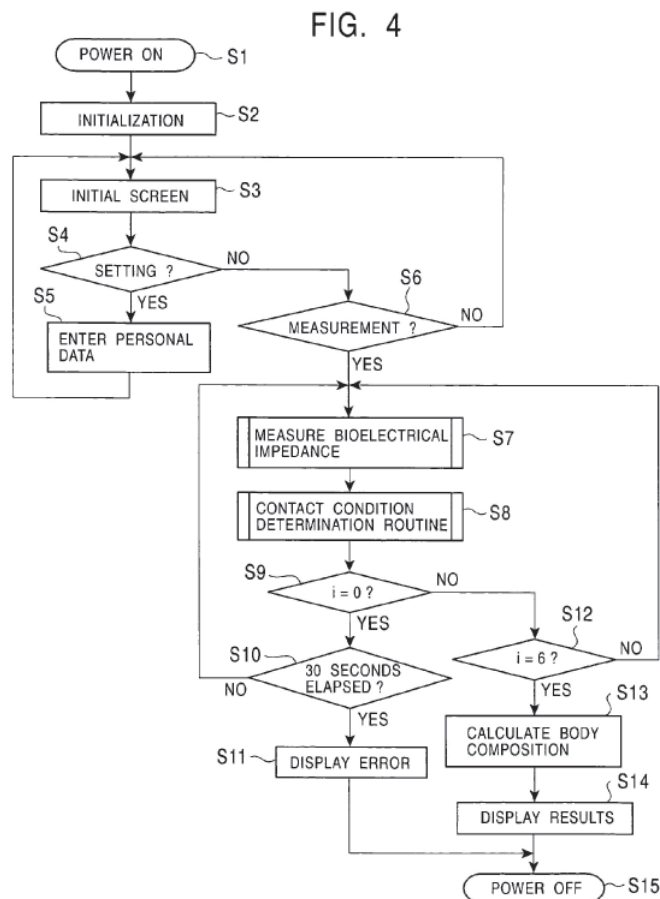


Figure 4 shows a “flowchart illustrating the flow of operations of the body fat meter.” Ex. 1011, 5:21–22. “If the contact condition is not normal,

the microcomputer 3 checks from the timer installed therein whether 30 seconds have elapsed from the start of the bioelectrical impedance measuring mode (STEP S10).” Ex. 1011, 9:47–51. “If 30 seconds have not yet elapsed, the microcomputer 3 returns to the bioelectrical impedance measuring routine in STEP S7 and continues the measurement.” *Id.* at 9:51–54.

“[I]f 30 seconds have already elapsed, the microcomputer 3 determines that an accurate measurement could not be made this time and displays an error on the display section 4 (STEP S11).” Ex. 1011, 9:54–57. “Upon passage of a give[n] time after display of the error in STEP S11 and display of the measurement result in STEP S14, the display is shut down, and the power of the body fat meter is also turned off automatically (STEP S15).” *Id.* at 10:4–7.

4. *Independent Claim 20*

Petitioner argues that Petterson teaches, suggests, or would have been understood to disclose substantially all the limitations of independent claim 20 with citations to the record. Pet. 50–71. Petitioner also argues with citations to the record that Albert teaches a biometric sensor (*id.* at 51) and, to the extent one of ordinary skill in the art would have sought additional details about detecting input with a sensor, such an ordinarily skilled artisan would have turned to Albert so that the proposed combination would have “detect[ed] a first input with the biometric sensor that satisfies first criteria” (*id.* at 57–58) and “in response to detecting the first input with the biometric sensor: start[ed] to record biometric information detected by the biometric sensor” (*id.* at 59–60).

Petitioner further argues with citations to the record that Petterson and Albert both disclose recording biometric information and displaying

progress of the recording. Pet. 63–64. Petitioner also argues that, if additional details were sought, one of ordinary skill in the art would have turned to Nakada which discloses criteria not being met for detection. *Id.* at 64–65. Petitioner further contends with citations to the record that the asserted references would have rendered obvious “in response to detecting that the first criteria are no longer met for a first period of time, resetting the indication of progress in recording the biometric information and maintaining display of the second user interface.” *Id.* at 66–68.

- a) *“in response to detecting that the first criteria are no longer met for a second period of time that is longer than the first period of time, replacing display of the second user interface with the first user interface”*

For above-quoted limitation, Petitioner argues that one of ordinary skill in the art “would have understood that a device would not remain in a recording mode indefinitely if the first criteria were no longer met for a second period of time after which it would not make sense to continue attempting to record,” “in user interface design, it would have been preferred to return from FIG. 3 back to FIG. 2B of Petterson in the absence of the first criteria being met,” and “resetting the user interface at least because of lack of interaction is suggestive that the user wants to start over or, alternatively, that the user has moved on to another activity.” Pet. 68–69 (citing Ex. 1003 ¶ 379).

Petitioner also argues that, to the extent a person of ordinary skill in the art would have sought additional details about replacing the display of a second user interface with a first user interface, such a person would have turned to Nakada for its disclosure of displaying an error when an accurate measurement could not be made. Pet. 69–70 (citing Ex. 1003 ¶¶ 380–382; Ex. 1011, 9:45–57, Fig. 4). In Petitioner’s view, one of ordinary skill in the

art “would have understood the lapsing of the 30 seconds to be a second period of time because the second condition is satisfied only after completion of the first period of time,” “the first period of time to be less than 30 seconds and the second period of time to be greater than or equal to 30 seconds,” “in user interface design, it would have been preferred to use the lapsing of a specific period of time to return back to FIG. 2B of Petterson in the absence of the first criteria being met,” and “resetting the user interface at least because of lack of interaction is suggestive that the user wants to start over.” *Id.* at 70–71 (citing Ex. 1003 ¶¶ 371, 382). Petitioner further argues that Nakada confirms that an error is displayed and that a system returns to the beginning of a routine, such as the one shown in Petterson’s Figure 2B. *Id.* at 71 (citing Ex. 1003 ¶ 382).

Patent Owner responds that Petitioner fails to show “replacing display of the second user interface with the first user interface.” Prelim. Resp. 13. Patent Owner first argues that Petitioner relies on Petterson alone to assert without support that one of ordinary skill in the art would have understood a lack of user interaction is suggestive that the user wants to start over. *Id.* (citing Pet. 68–69). According to Patent Owner, neither the Petition nor the cited testimonial evidence identifies any disclosure from the references or any evidence to support a lack of interaction reflecting a desire to restart monitoring. *Id.* at 13–14 (citing Pet. 68–69; Ex. 1003 ¶ 379).

Patent Owner also argues that Nakada does not disclose replacing a second user interface with a first user interface because Petitioner asserts the same conclusory reasoning that lack of interaction suggests a user wants to start over and Petitioner does not cite any teachings for support. Prelim. Resp. 14–15 (citing Pet. 68–69, 70–71; Ex. 1011, Fig. 4). Patent Owner further argues that Nakada contradicts Petitioner’s position because Nakada

describes displaying an error and powering off, instead of returning to a beginning state, as asserted by Petitioner. *Id.* at 15–17 (citing Pet. 71; Ex. 1011, 9:40–10:7). According to Patent Owner, “Nakada’s Figure 4 process results in *both* a display and an associated biological sensor being shut off, and, thus, being unable to replace or otherwise display a user interface that is ‘ready to detect biometric information.’” *Id.* at 17.

b) Asserted Motivation to Combine

Relevant to the limitation “replacing display of the second user interface with the first user interface,” Petitioner argues that one of ordinary skill in the art “would have been motivated to combine *Nakada*’s maintaining of a second user interface and resetting an indication of progress with *Petterson*’s user interface” to achieve Petterson’s goals of performing a test in a set period of time and providing a congratulatory message, inform the user of successful progress of the test, achieve full data collection by using time periods, avoid waiting indefinitely to send a congratulatory message, and avoid remaining indefinitely in testing mode thereby draining resources. Pet. 48–49 (citing Ex. 1003 ¶ 307; Ex. 1006, 12:38–13:13). Petitioner argues that one of ordinary skill in the art “would have understood the importance of a standby or inactive state to save battery.” *Id.* at 49 (citing Ex. 1003 ¶¶ 65–76, 307).

Petitioner also argues that one of ordinary skill in the art “would have been motivated to combine *Nakada*’s reset after the lapse of time, and display of an error message, with *Petterson*’s user interface to keep a user informed of progress of a recording and/or maintain battery life of the device.” Pet. 49 (citing Ex. 1003 ¶ 308). Petitioner further argues that Nakada discloses that if contact is not normal and 30 seconds have elapsed, then its device determines an accurate measurement cannot be made and

displays an error. *Id.* (citing Ex. 1003 ¶ 307; Ex. 1011, 9:45–57). Petitioner, thus, argues that “*Petterson* could have been modified to include the change of the display as in *Nakada*, as a result of the error condition, so as to maintain battery life of the device as well as keep the user informed as to device and/or recording status.” *Id.* at 49–50 (citing Ex. 1003 ¶ 307).

Patent Owner responds that “*Nakada*’s Figure 4 does not include any ‘reset’ step” and, therefore, “does not result in a ‘predictable result,’” as argued by Petitioner. Prelim. Resp. 20–21 (citing Pet. 17, 50). Patent Owner, thus, argues that the proposed combination of *Petterson* and *Nakada* must be the result of impermissible hindsight. *Id.* at 21 (citing Pet. 17).

Patent Owner also responds that Petitioner’s proposed combination of *Petterson* and *Nakada* is logically inconsistent with its justification because Petitioner contends that *Petterson* could include a change of display as shown in *Nakada* and that *Nakada*’s monitoring for error condition helps maintain the device’s battery life. Prelim. Resp. 25–26 (citing Pet. 49–50). According to Patent Owner, *Nakada* shuts down its display and turns off its body fat meter, and Petitioner’s proposed modification would have required *Nakada*’s device to remain powered on, contrary to *Nakada*’s disclosure. *Id.* at 26 (citing Ex. 1011, 10:4–7).

*c) Petitioner Fails to Show a Reasonable Likelihood of
Prevailing in its Challenge to Claim 20*

Petitioner fails to show with sufficient argument and evidence that its proposed combination would have included “replacing display of the second user interface with the first user interface,” as required by claim 20. For the arguments based on *Petterson* alone, Petitioner does not cite to any portion of *Petterson* that indicates the interface shown in Figure 3 is replaced by the interface shown in Figure 2B. Pet. 68–69. Petitioner points us to its

testimonial evidence which is substantively the same as the argument presented in the Petition and lacks any citation to the record that would support the statement that a person of ordinary skill in the art “would have understood that resetting the user interface at least because of lack of interaction is suggestive that the user wants to start over.” *Compare* Pet. 68–69, *with* Ex. 1003 ¶ 379 (citing nothing in the record).

Petitioner alternatively argues that, to the extent one of ordinary skill in the art would have sought additional details for implementing replacement of a second user interface with a first user interface, such an ordinarily skilled artisan would have turned to Nakada which discloses displaying an error if a condition is not met for 30 seconds. Pet. 69 (citing Ex. 1003 ¶¶ 380–382; Ex. 1011, 9:45–57). The cited portions of Nakada do not describe replacing one user interface with another and, instead, describes displaying an error on a display section. Ex. 1011, 9:45–57. Petitioner does not explain why Nakada’s displaying of an error would have been understood to be a “first user interface.” *See* Pet. 71; Ex. 1003 ¶ 382.

Petitioner also cites to Nakada’s Figure 4, but, as pointed out by Patent Owner, the figure shows that, after “Display Error” at S11, Nakada goes directly to “Power Off” at S15. Pet. 69–70; Prelim. Resp. 15–17; Ex. 1011, 9:40–10:7, Fig. 4. Nakada states that “[u]pon passage of a give[n] time after display of the error in STEP S11 and display of the measurement result in STEP S14, the display is shut down, and the power of the body fat meter is also turned off automatically (STEP S15).” *Id.* at 10:4–7.

The figure also shows “Initial Screen” at S3, seemingly a “first user interface” in Nakada, but the figure does not show returning from “Display Error” back to “Initial Screen.” *See* Ex. 1011, Fig. 4. Petitioner does not explain adequately why or how one of ordinary skill in the art would have

understood Nakada to be replacing a user interface when it describes displaying an error and then turning off the display. *See, e.g.*, Pet. 70–71.

Petitioner goes on to argue that one of ordinary skill in the art would have understood that, in user interface design, it would have been preferred to use the lapsing of a specific period of time to return back to FIG. 2B of *Petterson* in the absence of the first criteria being met because the [person of ordinary skill in the art] would have understood that resetting the user interface at least because of lack of interaction is suggestive that the user wants to start over.

Pet. 70–71 (citing Ex. 1003 ¶ 382). Petitioner again does not cite to any of the asserted references to support that a “lack of interaction is suggestive that the user wants to start over.” *See id.* Petitioner relies on testimonial evidence that, like before, is substantively the same as the argument presented in the Petition with no citation to the record for support. *Compare* Pet. 70–71, *with* Ex. 1003 ¶ 382 (citing nothing in the record).

For the reasons above, Petitioner provides insufficient evidence that *Petterson* alone or *Petterson* combined with Nakada teaches or suggests “replacing display of the second user interface with the first user interface,” as recited by claim 20. Pet. 68–69, 70–71; Ex. 1003 ¶¶ 379, 382.

Turning to Petitioner’s asserted motivation to combine, for the same reasons discussed above, we agree with Patent Owner that none of the asserted references describes replacing a user interface. Pet. 48–50; Prelim. Resp. 20–21. We also agree with Patent Owner that the proposed combination does not address adequately Nakada’s description of powering down its display. Pet. 48–50; Prelim. Resp. 25–26; Ex. 1011, Fig. 4.

Because the asserted references neither individually nor combined as proposed would have, “in response to detecting that the first criteria are no longer met for a second period of time that is longer than the first period of

time, replac[ed] display of the second user interface with the first user interface,” Petitioner fails to show a reasonable likelihood of prevailing in its challenge to claim 20 based on Petterson, Albert, and Nakada.

5. Dependent Claims 21, 24, 29, and 37

Petitioner argues with citations to the record that Petterson discloses the limitations of dependent claims 21, 29, and 37, and that Petterson and Albert disclose the limitations of dependent claim 24. Pet. 71–77.

a) Petitioner Fails to Show a Reasonable Likelihood of Prevailing in its Challenge to Claims 21, 24, 29, and 37

Petitioner’s arguments for dependent claims 21, 24, 29, and 37 do remedy the above discussed deficiencies in the arguments for independent claim 20. Thus, for the reasons discussed for claim 20, Petitioner does not show a reasonable likelihood of prevailing in its challenge to claims 21, 24, 29, and 37 based on Petterson, Albert, and Nakada.

G. Asserted Obviousness Based on Petterson, Albert, Nakada, and Mayor

1. Dependent Claim 22

Petitioner argues with citations to the record that Petterson and Mayor teach the limitations of claim 22. Pet. 78–81. Petitioner also argues with citations to the record that one of ordinary skill in the art would have combined Mayor with the proposed combination of Petterson, Albert, and Nakada to provide quick access to an application. *Id.* at 77–78.

2. Petitioner Fails to Show a Reasonable Likelihood of Prevailing in its Challenge to Claim 22

Petitioner’s arguments for dependent claim 22 do remedy the above discussed deficiencies in the arguments for independent claim 20. Thus, for the reasons discussed for claim 20, Petitioner does not show a reasonable

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likelihood of prevailing in its challenge to claim 22 based on Petterson, Albert, Nakada, and Mayor.

III. CONCLUSION

After considering the evidence and arguments presented in the Petition and the cited evidence, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing in proving that at least one of claims 20–22, 24, 29, and 37 of the '533 patent is unpatentable.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is denied, and no *inter partes* review is instituted.

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