

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC.
Petitioner

V.

MULLEN INDUSTRIES LLC
Patent Owner

Case IPR2022-01389
Patent No. 11,190,633

**PETITIONER'S REPLY TO
PATENT OWNER RESPONSE**

Table of Contents

I. Introduction.....	1
II. Claim Construction.....	1
A. The “first/second event” phrase needs no construction	2
B. The “motion sensing” phrase also need no construction.....	3
III. Vock is Analogous to the ’633 Patent	5
A. Vock and the ’633 Patent are in the same field of endeavor.....	6
B. Vock is also reasonably pertinent to the problem the ’633 Patent purports to solve	8
IV. The “Watch Band” and “Motion Sensing” are Disclosed.....	9
A. Vock discloses the recited “watch band”	9
B. Narayanaswami discloses “motion sensing”	12
V. The Petition demonstrated All Challenged Claims Are Obvious	13
A. Claims 12, 13, 15-18, 27 and 29 are obvious over Narayanaswami and Vock.....	13
1. Claim 12 – “reminder”	13
2. Claim 13 – “missed call”	14
3. Claims 15-18, 27, and 29	15
B. Claims 19-21 and 23-26, 28, 30-34, and 36-39 are obvious over Narayanaswami, Vock, and the Nokia User Guide	15
1. The Petition demonstrated a POSITA would have combined the references	15
2. Claim 19 – “voice message”	16
3. Claim 20 – “text message”	16
4. Claim 21 – “allow[ing] a user to select a type of user-perceivable signal”	17
5. Claims 23-26 – “communication signals”	18
6. Claim 28 – “third user-perceivable signal”	19
7. Claims 30-34	19
8. Claims 36-39	20
C. Claims 1-10, 13, 16, 18, 19, 22-27, 32 and 35-39 are obvious over Fujisawa and Vock	20
1. Claim 19 – “voice message”	20

D. Claims 11, 12, 14, 15, 17, 20, 21, and 28-34 are obvious over Fujisawa, Vock, and the Nokia User Guide.....	22
1. Claims 11, 20, and 33-34	22
2. Claims 12 and 29-31.....	23
3. Claims 14, 15, and 17.....	23
4. Claims 21 and 28.....	23
5. Claim 32	24
VI. Dr. Bims' testimony should be credited and Mr. Christensen's given little weight.....	25
A. Dr. Bims' testimony is well founded.....	25
B. In contrast, Mr. Christensen is unqualified, and his testimony unhelpful ..	26
VII. Conclusion.....	27

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Airbus S.A.S. v. Firepass Corp.</i> , 941 F.3d 1374	7, 8
<i>Belden v. Berk-Tek LLC</i> , 805 F.3d 1064 (Fed. Cir. 2015)	6
<i>In re Bigio</i> , 381 F.3d 1320 (Fed. Cir. 2004)	6, 7
<i>Brown & Williamson Tobacco Corp. v. Philip Morris Inc.</i> , 229 F.3d 1120 (Fed. Cir. 2000)	15
<i>Fonar Corp. v. Gen. Elec. Co.</i> , 107 F.3d 1543 (Fed. Cir. 1997)	13
<i>KSR Intern. Co. v. Teleflex Inc.</i> , 550 U.S. 398	12
<i>Kyocera Senco Indus. Tools v. ITC</i> , 22 F.4th 1369,1376-77 (Fed. Cir. 2022).....	26
<i>Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.</i> , 868 F.3d 1013 (Fed. Cir. 2017)	2
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005) (en banc)	1, 2
<i>Samsung Elecs. Co. Ltd. v. Affinity Labs of Texas, LLC</i> , IPR2014-01181, Paper 36, 63 (Jan. 28, 2016).....	6
<i>Vitronics Corp. v. Conceptronic, Inc.</i> , 90 F.3d 1576 (Fed. Cir. 1996)	4
<i>Volkswagen Group of America, Inc. v. Emerachem Holdings, LLC</i> , IPR2014-01555, Paper 36, 5 (Oct. 9, 2015)	6
<i>Xerox Corp. v. Bytemark, Inc.</i> , IPR2022-00624, Paper 9 (P.T.A.B. Aug. 24, 2022) (designated precedential Feb. 10, 2023)	25, 27

Other Authorities

37 C.F.R. 42.6(a)(3). <i>Second</i>	2
37 C.F.R. §42.8	30
37 C.F.R. § 42.24(c).....	29
37 C.F.R. § 42.24(d)	29
F.R.E. 703	11

EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 11,190,633
1002	Prosecution History of U.S. Patent No. 11,190,633
1003	Declaration of Dr. Harry Bims.
1004	Curriculum Vitae of Dr. Harry Bims.
1005	U.S. Patent No. 6,417,117 to Narayanaswami, et al.
1006	U.S. Patent Publication No. U.S. 2002/0115478 to Fujisawa, et al.
1007	U.S. Patent No. U.S. 6,539,336 to Vock, et al.
1008	Nokia 8890 User Guide (2002).
1009	Wayback Page for Accessing Nokia 8890 User Guide.
1010	Forbes Article (https://www.forbes.com/1999/12/07/mu6.html?sh=8d064a92135e)
1011	<i>Mullen Industries LLC v. Apple Inc.</i> , No. 6:22-cv-00145 (W.D. Tex. Feb. 9, 2022) – Complaint.
1012	Reserved.
1013	<i>Mullen v. Apple</i> – Agreed Scheduling Order, May 28, 2022.
1014	<i>District Court Trial Dates Tend to Slip After PTAB Discretionary Denials</i> , Scott McKeown, July 24, 2020.
1015	<i>Fintiv, Inc. v. Apple Inc.</i> , No. 1:21-cv-00896 (W.D. July 5, 2022), Order on Emergency Motion.
1016	Letter from Senator Tillis to USPTO Acting Commissioner Hirshfield regarding the Application of the <i>Apple, Inc. v. Fintiv</i> Decision, November 2, 2021.
1017	Director Vidal Memorandum re: <i>Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation</i> , June 22, 2022.
1018	Transcript of Deposition of Mr. Gerry Christensen, taken on August 17, 2023.

I. Introduction

Petitioner Apple submits this Reply to Patent Owner Mullen’s Response (“POR”). The Petition demonstrated that Claims 1-39 (the “Challenged Claims”) are unpatentable. Patent Owner’s assertions to the contrary rely on improper claim interpretations, straw arguments, and ignore explicit disclosure in the prior art. The Board should cancel the Challenged Claims.

II. Claim Construction

No terms need be construed to render a decision here. Patent Owner asserts two phrases in independent Claim 1 should be construed: “first event/second event” and “motion sensing.” POR, 5-8. However, for “first event/second event,” Patent Owner merely incorporates arguments from its Preliminary Response by reference, which is improper. For “motion sensing”—“said device includes motion sensing operable to distinguish between a plurality of different types of motion”—Patent Owner improperly redefines “motion sensing” as a a single motion sensor incorporated into the watch. This is not supported by the claims or specification and should be rejected.

“[T]he words of a claim ‘are generally given their ordinary and customary meaning’ . . . that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc) (citations omitted). “In some cases, the

ordinary meaning of claim language . . . may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314. Further, the Board “need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

A. The “first/second event” phrase needs no construction

Claim 1 recites “said first event and second event are different.” Ex. 1001, 6:58-59. The Board need not construe this phrase. *First*, Patent Owner’s Response presents no argument but instead incorporates, by reference, the analysis in the Preliminary Response (POR, 5); this is improper and should be rejected. 37 C.F.R. 42.6(a)(3). *Second*, Patent Owner’s entire argument is presented only in relation to Narayanaswami and states, “First, as demonstrated in Section III.A, Claim 1 requires the first, second and third events to be different—not three separate occurrences of the same type of event, e.g., three missed calls.” POR, 35. Patent Owner’s expert repeats this *verbatim*. Ex. 2009, ¶88. Patent Owner articulated no reason beyond this one conclusory statement that its construction is correct or that it matters. It should be rejected.

B. The “motion sensing” phrase also need no construction

Claim 1 also recites the “motion sensing” phrase, which also need not be construed. Patent Owner first concedes that “said device includes motion sensing operable to distinguish between a plurality of different types of motion” merely refers to a *capability* of the device. POR, 8. Then Patent Owner pivots, asserting, “[c]ritically, neither Petitioner nor Dr. Bims explains why skilled artisans would have understood ‘support for’ and ‘over an interface’ to mean that the ‘various devices’ or ‘additional sensors’ are *contained in watch device 10 itself.*” POR, 23 (emphasis added). Patent Owner then adds yet another requirement, stating that Petitioners “fail to explain what type of motion *either* device allegedly senses or how and why these devices operate to distinguish between different motion types.” POR, 25. This resulting limitation Patent Owner appears to propose—a single sensor installed in the watch that distinguishes between different types of motion—is not recited in the claim nor supported by the specification.

First, Claim 1 recites motion sensing, not motion sensors. Ex. 1001, 6:60-62. Thus, the plain language does not require a including a sensor *in the watch*.

Second, the specification nowhere describes a motion sensor contained within the watch. Rather, the specification discloses, “[f]or example, autonomous device 350 may include vibration sensor 352 to determine when cellular phone 300 vibrates.” Ex. 1001, 5:11-13. Thus, the proposed construction excludes the

only described embodiment. “Such an interpretation is rarely, if ever, correct and would require highly persuasive evidentiary support, which is wholly absent in this case.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996). Further, even motion sensing is not limited to processing occurring within the watch: “[c]ontrol circuitry to determine when a cellular phone vibration occurs may be included and may be located in either autonomous device 350 or notification device 330.” *Id.*, 5:16-18.

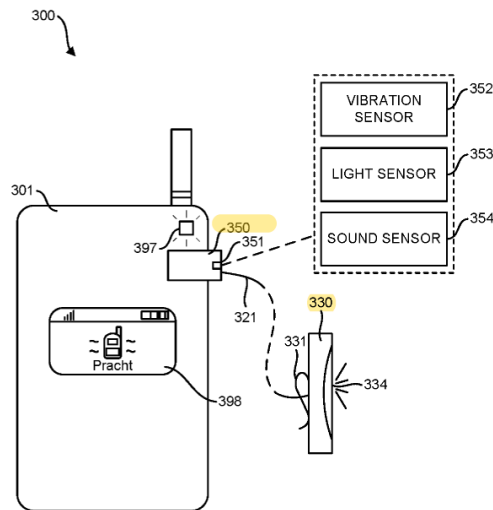
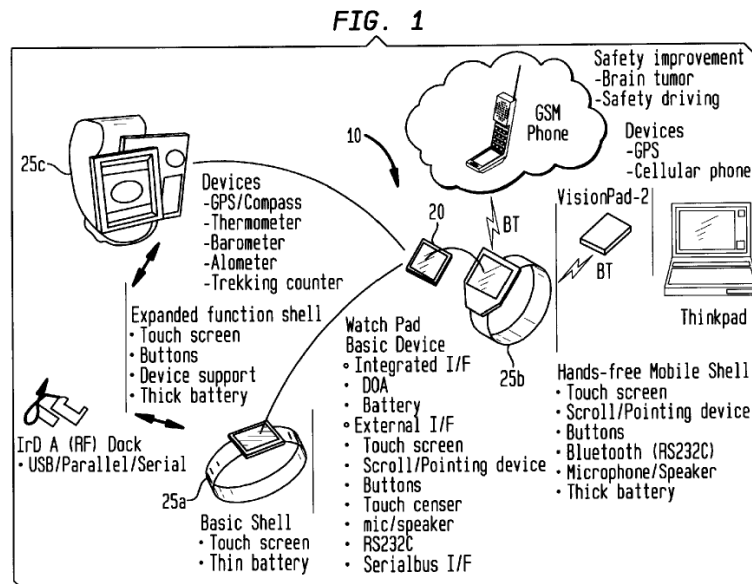


FIG. 3

Id., Figure 3 (emphasis added).

Third, the proposed construction does not matter. Narayanaswami discloses “the base card 20 may be implemented in various types of shells 25a, . . . , 25c for enabling various functions” and further, “an expanded function shell 25c, providing touch screen, buttons and support for various devices such as GPS/compass, thermometer, barometer, altimeter, etc.” Ex. 1005, 3:38-40.



Id., Fig. 1. Thus, the Narayanaswami watch, e.g., 25c, can incorporate various types of sensors, including for example a “GPS/Compass” and “altimeter.”

Moreover, Narayanasami discloses, “sensors may be attached to the Wrist Watch device over an interface.” Ex. 1005, 6:15-19. Thus, Narayanaswami discloses “motion sensing” under Patent Owner’s proposed construction or one that also includes the only disclosed embodiment. *See* Pet., 31; Ex. 1003, ¶¶107-108. The proposed construction should be rejected.

III. Vock is Analogous to the ’633 Patent¹

Vock is in the same field of endeavor as the ’633 Patent and reasonably

¹ Patent Owner incorrectly suggests Petitioner did not argue Vock is analogous. POR, 12. Petitioner demonstrated Vock was analogous to Narayanaswami and Fujisawa, each of which is analogous to the ’633 Patent. Paper 1, 22-26.

pertinent in any event. Patent Owner's assertions to the contrary rely on (1) a myopic focus on the problem the '633 Patent purportedly solved as the endeavor, and (2) ignoring the claims and specification when assessing whether the prior art is reasonably pertinent.

Prior art may be deemed analogous if it either: (1) is from the same field of endeavor as the claimed invention, regardless of the problem addressed, *or* (2) while not from the same field of endeavor, reasonably pertinent to the particular problem the invention addresses. *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004).

A. Vock and the '633 Patent are in the same field of endeavor

"To determine the applicable field of endeavor, the factfinder must consider 'explanations of the invention's subject matter in the patent application, including the embodiments, function, and structure of the claimed invention.'"

Petitioner cannot anticipate every possible argument Patent Owner may make. *Volkswagen Group of America, Inc. v. Emerachem Holdings, LLC*, IPR2014-01555, Paper 36, 5 (Oct. 9, 2015); *Samsung Elecs. Co. Ltd. v. Affinity Labs of Texas, LLC*, IPR2014-01181, Paper 36, 63 (Jan. 28, 2016); *see also Belden v. Berk-Tek LLC*, 805 F.3d 1064, 1082 (Fed. Cir. 2015). Moreover, Patent Owner has a sur-reply, so cannot claim prejudice.

Airbus S.A.S. v. Firepass Corp, 941 F.3d 1374. 1380 (Fed. Cir. 2019). Patent Owner ignores the claims and specification.

The '633 Patent and Vock each describes mobile electronics, communications, motion sensing, and a watch-based user interface. More particularly, both claim and describe providing remote notification to a user based on output received from a motion sensor via wireless communication signals. And both describe displaying the resulting information in real time on a watch. While Vock describes the problems it addresses somewhat differently, the field of endeavor is determined regardless of the problem addressed. *Bigio*, 1325.

Claim 1 of the '633 Patent recites, in part, a watch that receives wireless communication signals, including signals associated with sensing motion, and based on those signals, provides notification to a user. Ex. 1001, 6:55-67. The specification provides further context, “[t]he present invention provides a remote notification to a user of a cellular, or mobile, phone as the result of a particular activity In one embodiment, a sensing device is provided on the cellular phone that communicates/mutes an alert to a remote notification device. Ex. 1001, Abstract. Patent Owner refers to this as “cellular notifications.” POR, 11.

Similarly, Claim 15 of Vock recites, “[t]he sensing unit of claim 1, further comprising a data transfer section for wirelessly transmitting performance data, and further comprising a watch data unit for receiving the transmitted

performance data and for informing a wearer of the watch of the performance data.” Ex. 1007, 62:14-18. And Vock discloses, “[t]his information is fed back to the person (*in real time* or in connection with a later review of video)” Ex. 1007, 3:3-6 (emphasis added). Thus, while the ’633 Patent and Vock describe the problems somewhat differently, they are in the same field of endeavor.

B. Vock is also reasonably pertinent to the problem the ’633 Patent purports to solve

Vock identifies a problem in mobile electronics similar to that disclosed in the ’633 Patent and discloses a similar solution. References are “reasonably pertinent” if “a person of ordinary skill would reasonably have consulted those references and applied their teachings in seeking a solution to the problem that the inventor was attempting to solve.” *Airbus*, 1382. “[T]he reasonably pertinent inquiry may consider where an ordinarily skilled artisan would reasonably look, and what that person would reasonably search for, in seeking to address the problem confronted by the inventor.” *Id.*, 1383.

According to Patent Owner, the problem to which the ’633 Patent is directed “is that notifications of events occurring on a mobile phone exist physically on the phone and under certain circumstances cannot be perceived by the user.” POR, 13. The disclosed solution is attaching a vibration sensor to a phone and then based on output from the sensor, notifying the user via a watch. *See* Ex. 1001, 2:35-41.

Similarly, Vock describes that “persons in [] sporting activities only have a qualitative sense as to speed and loft or ‘air time.’” Ex. 1007, 1:51-52. In other words, the speed or air time cannot be perceived by the user. Vock addresses this problem by affixing a sensor to “the user’s vehicle (e.g., a ski or snowboard) moving on the ground; and senses when the vibration is greatly reduced, indicating that the vehicle is off the ground.” *Id.*, 2:52-55. Like the ’633 Patent, Vock utilizes a vibration sensor to sense information the user would otherwise not perceive. The “performance data is transmitted via radio frequencies . . . from the sensing unit to a data unit” and “the data unit of one aspect is a watch that the user wears on her wrist.” *Id.*, 4:54-63; *see also* Ex. 2018, 85:16-86:11. Thus, Vock solves a similar problem in a similar way and is at least reasonably pertinent to the ’633 Patent.

IV. The “Watch Band” and “Motion Sensing” are Disclosed

The prior art discloses both the recited watch band and motion sensing, the only limitations in Claim 1 Patent Owner disputes.

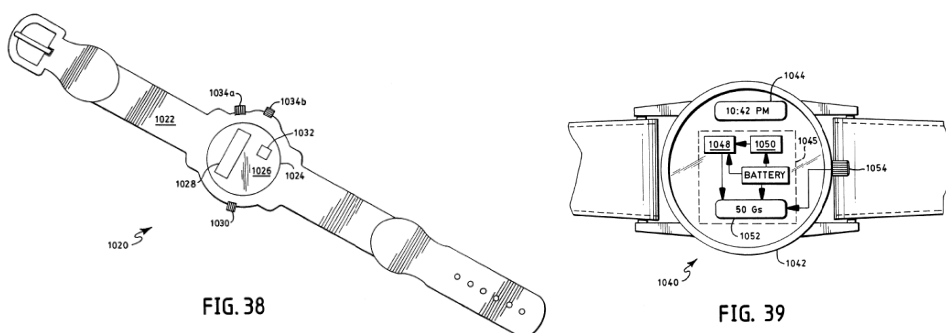
A. Vock discloses the recited “watch band”

Vock Figures 38 and 39 disclose a two-piece watch band with a buckle. Patent Owner’s argument to the contrary ignores the explicit disclosure of Vock.

Claim 1 recites “a watch band; a second watch band; [and] a buckle.” Ex. 1001, 6:51-54. Patent Owner’s expert calls this a “two-piece band.” Ex. 2009,

¶60. Patent Owner agrees that Figure 38 illustrates a watch band with a buckle. POR 19; Ex. 2009, ¶64. And Patent Owner's expert testified he would expect that the band in Figure 38 is affixed on each side of the case. Ex. 1018, 76:9-77:1. Moreover, Patent Owner concedes Figure 39 may disclose two bands, "[w]hile Petitioner contends Figure 39 shows two bands, this is *not necessarily true*." POR, 20 (emphasis added); Ex. 2009, ¶65. But then Patent Owner argues that Figure 38 has a "single 'band 1022,'" and thus cannot disclose a "two-piece band" and further speculates about different materials from which the band might be made (e.g., Velcro®) to suggest the watch band may lack a buckle. POR, 20. Contrary to Patent Owners assertions, Vock discloses a two-piece band with a buckle.

According to Vock, "FIG. 38 shows a 'shock' or 'G' or power digital watch 1020. . . ." Ex. 1007, 44:26-27. Vock notes the watch band is not unique: "*As in normal watches*, a band 1022 secures the watch 1020 on a user's wrist. . . ." *Id.*, 44:27-29 (emphasis added). Vock then introduces Figure 39 and notes, "*As above*, the watch 1042 is made to mount over the user's wrist." *Id.*, 44:48-50 (emphasis added). Thus, Figures 38 and 39 describe the same two-piece watch band and buckle. See, Ex. 1003, ¶¶100, 153.



Ex. 1007, Figs. 38, 39. Figure 38 illustrates the entire band; Figure 39 illustrates how the two-piece band attaches to the watch face. Petitioner further relied on its expert, who testified that Vock discloses a two-piece band with a buckle and that such bands had been common for decades.² Pet., 22, 28. Patent Owner’s argument regarding watch band material is irrelevant as Patent Owner’s expert admitted that (1) Figure 39 depicts the “stitching of a leather band,” (Ex. 1018, 79:6-10), and (2) a Velcro band could still have a buckle. *Id.*, 33:14-22.

Making a watch with Vock’s two-piece band and buckle as has been done

² Patent Owner asserts Petitioner provided no evidence that two-piece watch bands had been known for decades. Not so. A POSITA needs no special knowledge of watch bands. Paper 1, 11-12; POR, 4. Dr. Bims appropriately relied on his personal knowledge. F.R.E. 703. And Patent Owner’s expert, who also relied purely on his personal knowledge, agreed with Dr. Bims. Ex. 1018, 25:10-18, 26:12-20.

for decades is the epitome of obvious; there is nothing surprising or unpredictable in the combination. *KSR Intern. Co. v. Teleflex Inc.*, 550 U.S. 398, 401 (“A combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”). The recited watch band is obvious.

B. Narayanaswami discloses “motion sensing”

Narayanaswami discloses “said device includes motion sensing operable to distinguish between a plurality of different types of motion” as recited in Claim 1. Patent Owner’s assertions to the contrary rely on an improper construction and directly contradict the explicit disclosure of Narayanaswami.

First, Patent Owner asks the Board to construe “said device includes” to require a motion sensor that can distinguish between different types of motion be included in the watch; this construction is incorrect. *See supra*, Section II.B.

Second, contrary to Patent Owner’s assertions, Narayanaswami discloses that sensors can be embedded in the watch case (referred to as “shell”) *or* connected through an interface. For example, “the base card 20 may be implemented in various types of shells 25a, . . . , 25c for enabling various functions” and further, “an expanded function shell 25c, providing touch screen, buttons and support for various devices such as GPS/compass, thermometer, barometer, altimeter, etc.” Ex. 1005, 3:38-40.

Third, Patent Owner’s own expert admits that GPS and altimeter sensors track different types of motion and thus the base card can distinguish between different types of motion. *See, e.g.*, Ex. 2009, ¶¶73-74; *see also* POR, 28. He testifies that GPS sensors track position and “[t]his information, used in conjunction with programs that calculate the position of a device over time, may be used for a variety of purposes such as calculating speed and direction.” *Id.* And he concedes that “. . . you could get vertical motion from GPS. . . .” Ex. 1018:94:19-95:12. Thus, the GPS sensor disclosed in Narayanaswami can by itself distinguish between different types of motion.

The watch executes software to process data from the sensor(s) (Ex. 1005, Fig. 3), and “[n]ormally, once the functions to be performed by software have been identified, writing code to achieve such functions is within the skill of the art.” *Fonar Corp. v. Gen. Elec. Co.*, 107 F.3d 1543, 1549 (Fed. Cir. 1997). Thus, Narayanaswami discloses “motion sensing.”

V. The Petition demonstrated All Challenged Claims Are Obvious

A. Claims 12, 13, 15-18, 27 and 29 are obvious over Narayanaswami and Vock

1. Claim 12 – “reminder”

Claim 12 recites “user-perceivable signals are indicative of a reminder.” Ex. 1001, 7:19-20. Patent Owner attempts to distinguish between a calendar notification and a reminder, but no such distinction exists. POR, 31. While the

two terms are separate (and Petitioner separately accounts for each), there is no basis on which to assert they cannot be related. In fact, the '633 Patent states, “[t]he device can detect when there is an incoming call, or other action that the user desires to be notified of (*e.g., a calendar reminder*), and provide a supplemental notification signal to the user.” Ex. 1001, 1:54-57 (emphasis added). Thus, the “reminder” may be associated with a calendar event. Ex. 1018, 38:9-11 (“Q: Can a Calendar event in the '633 patent be associated with a Reminder? A: Yes.”) And Dr. Bims explains how Narayanaswami renders this element obvious based on snoozing the calendar reminder. Ex. 1003, ¶121. The calendar entry triggers the initial event and related notification, and the reminder, even after snoozing, depends from the calendar event, *i.e.*, the notification is indicative of a reminder.

2. Claim 13 – “missed call”

The Petition demonstrated that calls in Narayanaswami trigger a type of alert, and that if the user does not respond to the call, the watch will provide an alarm at a preset time after the call is missed. Pet., 38, 39 (citing Ex. 1005, 11:13-20; Ex. 1003, ¶122). Patent Owner incorrectly asserts the Petition lacks evidentiary cites and that, “[a]t his deposition, Dr. Bims was unable to identify a single disclosure in Narayanaswami relating to a missed call. Ex. 2011, 74:15-79:15 (identifying additional excerpts from Narayanaswami that do not concern

‘missed calls’).” POR, 32. Dr. Bims’ transcript directly contradicts Patent Owner’s assertion. Patent Owner’s counsel asked, “Q: . . . I was wondering if you could point to me where in Narayanaswami there is a disclosure of the watch providing an alarm at a preset time after a call, an incoming call, is missed.” Ex. 2011, 74:15-19. Dr. Bims responded with five pages of testimony identifying specific disclosures of Narayanaswami. Ex. 2011, 74:20-79:15. That Patent Owner disagrees with Dr. Bims is no basis to falsely assert he “was unable to identify a single disclosure.” Narayanaswami renders Claim 13 obvious.

3. Claims 15-18, 27, and 29

Patent Owner does not separately argue Claims 15-18, 27, or 29 but rather relies on (1) claims from which they depend, or (2) various combinations of recited features. POR, 34-36. Claims 15-18, 27, and 29 are all obvious as demonstrated in the Petition.

B. Claims 19-21 and 23-26, 28, 30-34, and 36-39 are obvious over Narayanaswami, Vock, and the Nokia User Guide

1. The Petition demonstrated a POSITA would have combined the references

Narayanaswami, Vock and the Nokia User Guide are analogous and would have been combined. Pet., 23; Ex. 1003, ¶¶91, 92. Evidence of a motivation to combine prior art references need not be explicit, and “may flow from the prior art references themselves.” *Brown & Williamson Tobacco Corp. v. Philip Morris*

Inc., 229 F.3d 1120, 1125 (Fed. Cir. 2000). Here, the motivation is explicit.

Narayanaswami describes that mobile devices, such as cellular phones, “combine[s] computing, telephone/fax, and networking features” and “[m]ore recently, there have been attempts to incorporate some of the capabilities of the above devices into wrist watches.” Ex. 1005, 1:15-33. Thus, Narayanaswami provides explicit motivation to combine its smart watch with capabilities described in the Nokia User Guide, which Patent Owner’s expert concedes were well known. Ex. 2009, ¶47.

2. Claim 19 – “voice message”

The Nokia User Guide discloses a “voice message;” Patent Owner does not dispute this. The Petition demonstrated the voice message feature would be incorporated into Narayanaswami’s watch. Pet., 42. Patent Owner ignores this and instead rebuts a straw argument based on the Nokia phone lacking the ability to communicate with another wireless device. POR, 38. This argument is both irrelevant (Petitioner’s argument does not rely on the ability of the Nokia phone to communicate wirelessly) and false (the Nokia phone is capable of wireless communication, including peer-to-peer). Ex. 1008, 105; Ex. 1018, 71:5-72:7. Claim 19 would have been obvious.

3. Claim 20 – “text message”

Patent Owner also does not dispute that “text message” is disclosed, and

Patent Owner's expert concedes that text messaging was well known. Ex. 1018: 62:10-21. Patent Owner instead merely repeats the same straw argument as with Claim 19. POR, 38. Claim 20 would have been obvious for the same reasons.

4. Claim 21 – “allow[ing] a user to select a type of user-perceivable signal”

Claim 21 recites, the “device is operable to allow a user to select a type of user-perceivable signal for said first user-perceivable signals that is different than a type of user-perceivable signal for said second user-perceivable signals” Ex. 1001, 7:47-51. The Nokia User Guide discloses selecting different types of ring tones. Pet., 43. Patent Owner asserts that the term “type” requires not only a different type of signal but also different mechanisms for delivering the signal. POR, 40-42. Patent Owner cites no support for this construction, and the '633 Patent includes none.

Instead, the '633 Patent describes, “[s]uch a vibrational sensor may be coupled to control circuitry that may, for example, distinguish such alerts and provide a *different type remote alert* to a user (*e g, different colors of light* may be emitted).” Ex. 1001, 2:44-47 (emphasis added). Thus, selecting from among various options for one mechanism—a light or a ring tone—satisfies the “type” limitation.

Moreover, if the Board adopts Patent Owner's interpretation of “type,” Narayanaswami discloses providing tactile notifications in “vibrate mode” and

audible notifications as “audible tone[s].” Ex. 1005, 12:18; 12:51.

Narayanaswami also teaches selecting between these based on priority values of the alarm and quiet time. *Id.* at 12:12-24. Thus, under either construction, Claim 21 is obvious.

5. Claims 23-26 – “communication signals”

Claims 23-26 all recite limitations related to “communication signals.”

Claim 23 recites “communication signals . . . sent to said mobile telephonic device comprise wireless communication signals to answer an incoming call.”

Ex. 1001, 7:55-58. Claim 24 recites “communication signals . . . comprise voice signals.” *Id.*, 7:59-61. Claim 25 is a combination of Claims 23 and 24. *Id.* at 7:62-66. And Claim 26 recites “communications signals comprising voice signals operable to be utilized by said mobile telephonic device for an active call.” *Id.* at 8:1-4. All are obvious.

Regarding Claim 23, Patent Owner concedes that Narayanaswami and the Nokia User Guide both disclose allowing the user to answer a call. POR, 41 (“This disclosure [of Nokia], however, merely describes the functionality of notifying a user of an incoming call—the exact functionality already described in Narayanaswami at lines 3-5 in column 8.”). Patent Owner also notes Narayanaswami discloses “permit[ting] the watch to become the display for another device.” *Id.* Since both references disclose allowing a user to answer a

call, and the Narayanaswami watch can communicate with the phone, thereby becoming the display for the phone, then Claim 23 is obvious, as demonstrated in the Petition. Pet., 44. Incorporating the functionality of conducting an active phone call over the watch via the Nokia phone means that “communication signals to answer an incoming call” would be sent to the phone and communications signals comprising “voice signals” as recited by Claims 23-25 would be transmitted between the watch and the phone as recited in Claim 26. Thus, Claims 23-26 are obvious.

6. Claim 28 – “third user-perceivable signal”

Claim 28 adds a “third user-perceivable signal” to Claim 21. Ex. 1001, 7:47-51; 8:14-15. Patent Owner asserts Narayanaswami only discloses a “single type of notification . . . , namely the displaying of Caller ID.” POR, 39. However, Patent Owner’s assertion again relies on an unreasonably narrow construction of “type,” as discussed above, and Narayanaswami discloses providing three types of notifications. Ex. 1005, 12:12-24, 12:51. Thus, Claim 28 is obvious.

7. Claims 30-34

Claims 30-34 are merely combinations of different events associated with a user-perceivable signal. Ex. 1001, 8:21-45. For the reasons above, these claims

are obvious over Narayanaswami, Vock, and the Nokia User Guide.³

8. Claims 36-39

Claims 36-39 repeat the limitations of Claims 23-26 but depend on Claim 27 (Ex, 1001, 8:49-65) and are obvious as explained above.⁴

C. Claims 1-10, 13, 16, 18, 19, 22-27, 32 and 35-39 are obvious over Fujisawa and Vock

Patent Owner's arguments that Claims 19 and 32 are patentable over Fujisawa and Vock rely on a flawed interpretation of "depends on" and on mischaracterizing Fujisawa. POR, 47-48. Patent Owner makes no separate argument that Claims 2-10, 13, 16, 18, 22-27 or 35-39 are patentable over Fujisawa and Vock. Claims 1-10, 13, 16, 18, 19, 22-27 and 35-39 are all obvious over Fujisawa and Vock.

1. Claim 19 – "voice message"

Fujisawa discloses that the watch displays the voice message notification. Pet., 56-57. Patent Owner concedes this but then asserts that the claim is non-obvious based on a hypothetical where the user accesses the voice message

³ Mr. Christensen provides no separate analysis of Claims 30-34. *See*, Ex. 2009, ¶106.

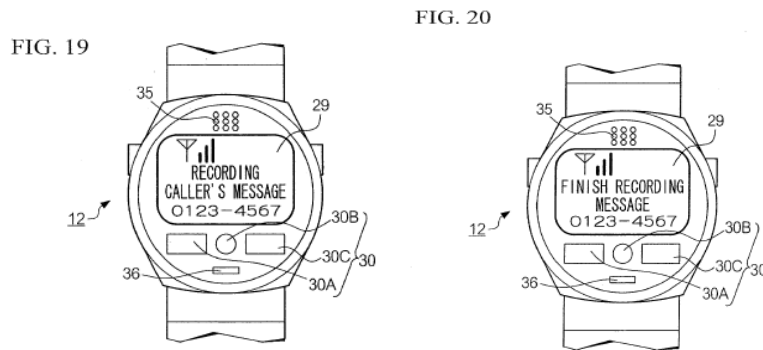
⁴ Mr. Christensen provides no separate analysis of claims 36-39. *See*, Ex. 2009, ¶107.

several days later; arguing that while the user-perceivable signals are indicative of a “voice message,” this delay somehow renders them “dependent on” stored data rather than communication signals, but rather on stored data. POR, 47-48. This is incorrect; the voice message notification still depends on the communication signals.

Further, to the extent Patent Owner improperly proposes limiting the claim to a notification displayed immediately, Fujisawa (Ex. 1006) discloses this as well:

- a caller calls a phone, which sends a notification signal to the watch, which in turn notifies a user (¶236-238);
- the watch “advance[s] to step Sc11 [answering machine function] even when the user does not notice the incoming call notification,” (¶263) (i.e., a missed call);
- caller “leave[s] his or her message” (¶269); and
- phone “receives the data for the message (step Sc21), and then sends the data to the [watch] . . . ,” which records it (¶¶270-271).

Fujisawa also discloses displaying notification of (1) the missed call, and (2) receiving and recording a voice message. *Id.*, ¶0272; Pet., 51.



Id., Figs. 19, 20. Claim 19 is obvious.

D. Claims 11, 12, 14, 15, 17, 20, 21, and 28-34 are obvious over Fujisawa, Vock, and the Nokia User Guide.

1. Claims 11, 20, and 33-34

The prior art discloses the elements of Claims 11 and 20, and Patent Owner does not argue otherwise. Instead, Patent Owner asserts that the Petition fails to articulate a Motivation to Combine. POR, 49, 53. Contrary to Patent Owner's assertion, the Petition demonstrated that a POSITA would make the combination and have a reasonable expectation of success. Pet., 25-26; Ex. 1003 ¶¶96-97.

Like Narayanaswami, Fujisawa includes explicit motivation to incorporate features of a cell phone. For example, Fujisawa discloses bi-directional communication with the cell phone via, for instance Bluetooth, for conducting phone calls and transmitting messages and a plurality of other features the combination of the watch and cell phone provide. *See, e.g.*, Ex. 1006, ¶¶1-90. While Fujisawa does not explicitly disclose every feature included in a conventional cell phone, the Petition demonstrated it would have been obvious to

incorporate those additional features disclosed by the Nokia User Guide into the Fujisawa watch. Thus, Claims 11 and 20 are obvious.

Patent Owner's arguments for Claims 33 and 34 rely exclusively on its arguments for Claim 20. POR, 58. Claims 33 and 34 are obvious for the same reasons.

2. Claims 12 and 29-31

Claim 12 recites a "reminder." Patent Owner's arguments here are the same as for (1) Claims 11 and 20 in relation to Motivation to Combine, and (2) Claim 12 with respect to Narayanaswami and are incorrect for at least the same reasons. *See supra*, Section V.A.1. For Claims 29-31, Patent Owner relies exclusively on its arguments for Claims 12 and 20. Thus, Claims 12 and 29-31 are obvious.

3. Claims 14, 15, and 17

Claims 14, 15, and 17 recite combinations of "incoming call," "calendar notification," and "reminder," and Patent Owner relies exclusively on its Claims 11 and 12 arguments. POR, 50. These claims are also obvious.

4. Claims 21 and 28

Patent Owner relies on the same incorrect construction of "type" presented in relation to Narayanaswami. *See supra*, Section V.B.4. Further, even were the Board to adopt this construction, the Nokia User Guide discloses different

mechanisms for providing user-perceivable signals. For example, “[p]rofiles let you set your phone’s sound settings to whatever environment you find yourself in” Ex. 1008, 68. The Nokia User Guide discloses the following mechanisms:

Profile =	[Ringling option
		Ringling tone
		Ringling volume
		Vibrating alert
		Message alert tone
		Keypad tones
		Warning and game tone
		Automatic answer
		Lights
]	

Id. Thus, the Nokia User Guide discloses three different mechanisms—sound, vibration, and lights—for user-perceivable signals. Claim 21 is obvious under either construction. Patent Owner’s Claim 28 argument relies exclusively on Claim 21 (POR, 55-56), and thus, Claim 28 is also obvious.

5. Claim 32

Claim 32 recites a combination of “incoming call,” “missed call,” and “voice message.” Ex. 1001, 6:31-35. Patent Owner contends that Petitioner improperly relies on one paragraph [0272] of Fujisawa to teach “a missed call” and a “voice message” and argues such reliance is improper. POR, 56-58. Patent Owner is incorrect regarding the Petition, which relies on paragraph [0272] to teach “a missed call” (Pet., 50) and paragraph [0291] to teach “a voice message.” *Id.*, 56-57. Patent Owner explicitly recognizes this in relation to Claim 19 (POR, 47-48) but then ignores it in relation to Claim 32. Claim 32 is obvious.

VI. Dr. Bims' testimony should be credited and Mr. Christensen's given little weight

A. Dr. Bims' testimony is well founded

Dr. Bims provided thorough and well-supported testimony. Nevertheless, Patent Owner asserts repeatedly that Dr. Bims' testimony is conclusory and unsupported. *See*, POR, 27, 31, 33, 35, 42, and 45 (citing *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 (P.T.A.B. Aug. 24, 2022) (designated precedential Feb. 10, 2023)). These assertions are meritless.

In *Xerox*, the Board disregarded certain expert testimony, stating “[w]e have reviewed this excerpt from Dr. Jones’ declaration and note that it merely repeats, *verbatim*, the conclusory assertion for which it is offered to support.” *Xerox*, Paper 9, 15. They noted, “[t]his is particularly problematic in cases where, like here, expert testimony is offered . . . to supply a limitation missing from the prior art.” *Id.*, 16. Dr. Bims is not supplying limitations missing from the prior art, and he provides ample support for his testimony.

For example, Patent Owner claims that in paragraph 107, Dr. Bims does not support his assertion that Narayanaswami’s sensors detect motion. POR, 27. This is false. Dr. Bims testifies, “The GPS and altimeter sensors are both capable of sensing motion. ‘In a preferred embodiment, additional sensors may be attached to the Wrist Watch device over an interface. Examples may include additional tilt and motion (velocity, direction, speed) sensors.’” Ex. 1003, ¶107

(citing Ex. 1005, 6:15-19). Thus, his testimony is detailed and supported by the disclosure in Narayanaswami. Patent Owner’s remaining complaints are similarly meritless.

Patent Owner’s assertion that Dr. Bims testifies the prior art “could” be combined rather than “would” be combined is also meritless. Dr. Bims testifies that one of skill in the art *would have been motivated* to make the various asserted prior art combinations. *See*, Ex. 1003, ¶¶89-97. To support its argument, Patent Owner cherry picks a statement in Dr. Bims’ declaration describing a feature in the Nokia User Guide allowing a user to select different tones (“a user could select different tones”). Ex. 1003, ¶192. He is describing the disclosed feature—the ability to make a selection—and not articulating a motivation to combine. Patent Owner’s objection is baseless. Dr. Bims’ testimony should be credited.

B. In contrast, Mr. Christensen is unqualified, and his testimony unhelpful

Mr. Christensen was not a POSITA, and his opinion is conclusory at best “To offer expert testimony from the perspective of a skilled artisan in a patent case . . . a witness must at least have ordinary skill in the art.” *Kyocera Senco Indus. Tools v. ITC*, 22 F.4th 1369,1376-77 (Fed. Cir. 2022). Mr. Christensen lacks the educational and technical background to serve as an expert here.

The parties agree a POSITA would have a degree in “computer science, computer engineering, electrical engineering or a similar degree with one or two

years of experience with operating system and application software in mobile devices, such as cell phones, personal digital assistants, and smart watches” or equivalent practical experience. Pet. 11-12; POR. 4. Mr. Christensen has none of the requisite experience. Ex. 2009, 68-75; Ex. 1018, 110:9-123:12 (He admits to no computer engineering or programming experience and only minimal programming education.), 123:13-14:17 (“I was not an individual contributor of developing programs, I did not oversee people directly that were doing programing.”), 124:19-126:1 (same).

Even were he qualified, expert testimony, like Mr. Christensen’s, that “merely repeats, verbatim, the conclusory assertion for which it is offered to support . . . is entitled to little weight.” *Xerox Corp.*, 15 (citations omitted). For example, in relation to construing “motion sensing,” Mr. Christensen’s entire testimony is “[a]s an initial matter, and as noted above, I agree with Patent Owner that the ‘includes’ language in Claim 1 of the ’633 Patent requires ‘motion sensing’ capability to be contained within ‘said device.’” Ex. 2009, ¶64; *see also id.*, ¶23. He cites no evidence, relying solely on this conclusory statement in his analysis. *Id.*, ¶¶70-77. Such analysis should be discarded, and the corresponding Patent Owner Response section (POR, 22-24) rejected.

VII. Conclusion

The Challenged Claims should be cancelled.

Dated: August 31, 2023

By: /John C. Alemanni/
John C. Alemanni
Reg. No. 47,384
Counsel for Petitioner

CERTIFICATE OF WORD COUNT

The undersigned certifies pursuant to 37 C.F.R. § 42.24(d) that the foregoing Reply excluding any table of contents, table of authorities, or certificates of service or word count, contains 5595 words according to the word-processing program used to prepare this paper (Microsoft Word). Petitioner certifies that this Reply does not exceed the applicable type-volume limit of 37 C.F.R. § 42.24(c).

Dated: August 31, 2023

By: /John C. Alemanni/
John C. Alemanni
Reg. No. 47,384
Counsel for Petitioner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing Petitioner's Updated Mandatory Notice Pursuant to 37 C.F.R. §42.8 has been served electronically via email upon the following:

Peter F. Snell – PFSnell@mintz.com

Brad M. Scheller – BMScheller@mintz.com

Dated: August 31, 2023

By: /John C. Alemanni/
John C. Alemanni
Reg. No. 47,384
Counsel for Petitioner