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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MASIMO CORPORATION,
Petitioner

v.

APPLE, INC.,
Patent Owner

Case No. 2023-00734
Patent No. 10,942,491

**PETITIONER'S REPLY ON § 325(D) IN SUPPORT OF PETITION FOR
INTER PARTES REVIEW OF U.S. PATENT NO. 10,942,491**

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35 U.S.C. § 102	2
35 U.S.C. § 103	3, 5, 6
35 U.S.C. § 325(d)	1, 3, 4

EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 10,942,491 ('491 Patent)
1002	File History of the '491 Patent
1003	Declaration of Professor R. James Duckworth, Ph.D.
1004	<i>Curriculum Vitae</i> of Professor R. James Duckworth, Ph.D.
1005	PCT Publication No. WO 2005/092182 ("Kotanagi")
1006	U.S. Patent No. 6,265,789 to Honda ("Honda")
1007	U.S. Publication No. 2001/0056243 ("Ohsaki")
1008	PCT Publication No. WO 2012/140559 A1 ("Shmueli")
1009	European Patent App. No. EP14163114 ("Coppola")
1010	U.S. Provisional Patent App. No. 61/976,388 ("Fei")
1011	PCT Publication No. WO 2015/034149 A1 ("Choi PCT")
1012	U.S. Patent Pub. No. 20150214749 A1 ("Park")
1013	Reserved
1014	US 20120221254 A1 (Kateraas)
1015	U.S. Provisional Patent Application No. 61/932258 ("Park Provisional")
1016	US20140135594 ("Yuen")
1017	U.S. Patent No. 10,090,712 ("Jabori")
1018–1019	Reserved
1020	PCT Patent Pub. WO 2015150199 A1 ("Coppola PCT")
1021	Reserved
1022	U.S. Patent No. 4,129,124 ("Thalmann")
1023	Korean Patent Application No: 10-2013-0107833 ("Choi")

Exhibit No.	Description
1024	Reserved
1025	U.S. Patent No. 4,163,447 (“Orr”)
1026	U.S. Patent No. 4,224,948 (“Cramer”)
1027	U.S. Patent No. 4,248,244 (“Charnitski”)
1028	PCT Publication No. WO 1982000088 A1 (“Steuer”)
1029	U.S. Patent No. 4,375,219 (“Schmid”)
1030	U.S. Patent No. 5,316,008 (“Suga”)
1031	U.S. Patent No. 5,738,104 (“Lo”)
1032	Reserved
1033	US 20050116820 A1 (“Goldreich”)
1034	US 20070276270 A1 (“Tran”)
1035	US 20080208009 A1 (“Shklarski”)
1036	U.S. Patent No. 6,091,530 (“Duckworth”)
1037	U.S. Patent 6,075,755 (“Zarchan”)
1038	Y. Mendelson, “A Wearable Reflectance Pulse Oximeter for Remote Physiological Monitoring,” Proceedings of the 28th IEEE (2006)
1039	Y. Mendelson, “Wearable Wireless Pulse Oximetry for Physiological Monitoring,” PPL Workshop (2008)
1040	Reserved
1041	US 20150355604 A1 (“Fraser”)
1042–1046	Reserved
1047	USPTO Memo of April 5, 2018 regarding <i>Dynamic Drinkware</i> and <i>Amgen</i> cases
1048	District of Delaware Statistics, downloaded on February 21, 2023 from

Exhibit No.	Description
	https://www.uscourts.gov/sites/default/files/data_tables/fcms_na_distprofile0930.2022.pdf
1049	Reserved
1050	<i>Apple Inc. v. Masimo Corporation, et al.</i> , May 25, 2023 Scheduling Order, Case No. 1:22-cv-01378-MN (JLHx) (D. Del.)

I. INTRODUCTION

Dismissal is not warranted because “the same or substantially the same prior art or arguments” were not previously presented to the Office. 35 U.S.C. § 325(d); *Advanced Bionics, LLC v. Med-El Electromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 (Feb. 13, 2020). The petition’s references are all new. Apple’s POPR selects a few file history references (from over 600) to allege they are *substantially* the same based on allegedly similar features. Apple argues it was Masimo’s burden to address all potential similarities between art in the petition and file history, but Apple cites no authority establishing such an extraordinary burden. Apple can point to no previous file history analysis addressing Masimo’s art—or any similar arguments—to which the Board can now simply defer.

Apple argues Masimo’s paragraph addressing § 325(d) is “deficient” (POPR at 4), but that paragraph references and invokes the full petition. Pet. at 94 (references “in the Grounds,” “as shown above,” “this Petition presents”). The petition details how Masimo’s references are materially stronger, so BD Factors (a) and (b) favor Masimo. *See Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (Dec. 15, 2017). In the file history, Examiner Gedeon appears to have considered *Schmid* and *Mistry* as the closest art (EX1002 at 607), but he has since cited *Kotanagi* and/or *Honda* in four continuations (POPR at 19–22), calling them “newly discovered” on May 8, 2023 (EX2011 at 387, 389).

II. ARGUMENT

A. The Prior Art and Arguments in the File History and Petition Differ

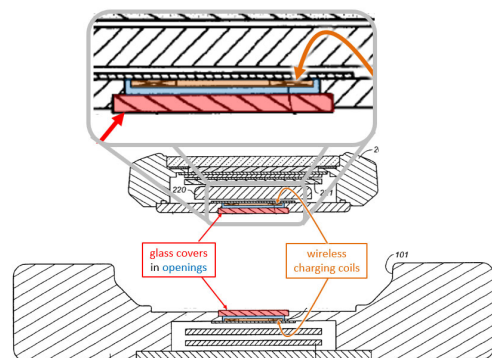
1. Masimo's prior art is stronger than Apple's selected references.

The petition relies on *Kotanagi* for many claimed features, noting that it teaches a nonconductive cover for a biosensor module (Pet. at 18–21), contactless charging (*id.* at 22), and skin contact electrodes (*id.* at 50). Apple argues that *Hong*, from the file history, is analogous to *Kotanagi*. POPR at 38. However, the Examiner stated that *Hong* “does not include” the claimed electrodes (EX1002 at 1123), while the petition shows how *Kotanagi* includes such electrodes (Pet. at 50).

The petition combines *Kotanagi* with *Honda*. Before allowance, the file history stated the claimed “dielectric cover serving as the point for wireless transfer of energy to recharge the electronic watch” distinguishes *Schmid* (separate recharge port) and *Mistry* (antenna in the band).

EX1002 at 607. But *Honda* teaches these features. See Pet. at 23–25 (figure at right), 37–39, 48–49. *Honda*'s Figure 15 shows inductive charging through glass is more

efficient than through a metal watch housing. EX1006 at 14; see Pet. at 27–28.



Apple asserts *Honda* is no better than *Mooring*, *Mistry*, *Mensing*, or *Hong* (POPR at 39–41), but these lack the relevance illustrated above. *Mooring* refers to

an induction coil, but it “comes into contact with a charging plate on the watch stand.” EX2004, 1:38–53. *Mistry* only refers to a coil “in or on” the device body or band. EX2005 ¶¶[0127]–[0128]. *Mensing* powers a sensor “through skin” (EX2006, 26:14–15) and charges “via an inductive and/or wireless charging pad,” (EX2006, 26:22–24). But Apple cites nothing in *Mensing* teaching where or how to place a receiving coil. Apple points to “optical elements” in *Hong* behind a dielectric cover (POPR at 37), but it cites nothing in *Hong* teaching wireless charging through this cover. Accordingly, Apple points to nothing in *Mooring*, *Mistry*, *Mensing* or *Hong* that is comparable or superior to *Honda*.

Apple also ignores that it is *Kotanagi* and *Honda* **together** that surpass any individual reference or set of references in the file history to render the claims obvious. Pet. at 25–30, 37–39, 47–49, 53. Apple begins and ends its Ground 1 arguments by simply asserting *Kotanagi* and *Honda* “fail to disclose” allegedly allowable features (POPR at 33, 42–43)—a challenge more relevant to § 103 than § 325(d). The petition’s full substance on Ground 1 refutes this. Pet. at 15–42.

For Ground 2, the petition adds *Choi*. Pet. at 42–60. The POPR downplays *Choi* to argue its teachings—and the related ECG electrode limitations—are fully present in other references such that in the file history, allowability of claim 1 hinged on a totally different feature: a requirement that “both wireless power and optical signal transmission” occur “through the rear cover.” POPR at 43.

Consistent with Ground 1 (claims 7 and 14) discussed above, the petition explains how *Kotanagi* and *Honda* render this feature obvious. Pet. at 47–49. Apple argues that *Hong* + *Schmid* (file history) is similar to *Kotanagi* + *Choi* (petition), since *Schmid* and *Choi* both teach ECG electrodes. POPR at 44. Apple’s argument fails to address the petition’s full three-way combination (which also includes *Honda*) and it ignores *Choi*’s other relevant features such as its “touch display” (Pet. at 44), its “wrist band” (*id.* at 45), its electrode placement (*id.* at 51), and the specific reasons for combining it with *Kotanagi* and *Honda* (*id.* at 53–54). Because *Schmid* has no touch-sensitive display, for example, Apple instead points to *Hong*’s display. POPR at 43–44. But by teaching both ECG electrodes **and** a touch display, *Choi* is superior to *Schmid* and *Hong* in this regard, and not cumulative.

The petition explains that the references in ***all the grounds*** are new (Pet. at 94) and provides detailed new arguments using these new references. The petition cites *Fraser* in Ground 3 (*id.* at 61–66), *Orr* in Ground 4 (*id.* at 70–74), *Park* in Grounds 5 and 6 (*id.* at 75–83), and *Jabori* in Grounds 7 and 8 (*id.* at 83–91). Apple’s POPR never asserts any of these references are cumulative, so the POPR should fail for this reason alone. See *Oticon Medical AB et al. v. Cochlear Ltd.*, IPR2019-00975, Paper 15 (Oct. 16, 2019), p. 19 (addition of one secondary reference, *Choi*, sufficient to show examination error). Because § 325(d) arguments rest on the logic of *stare decisis* (see *Advanced Bionics* at 9), it would

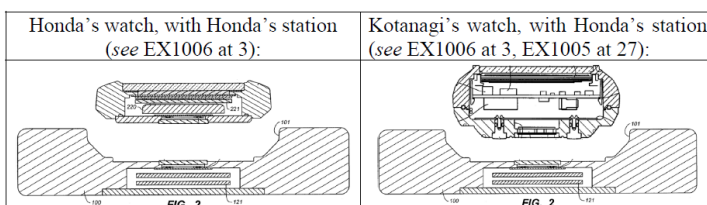
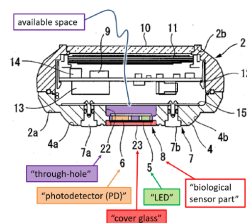
be particularly unfair to deny Masimo’s petition when four new references—for six separate grounds—are not even *alleged* to be cumulative or redundant.

Apple’s file history references materially differ from the references in the petition like *Honda*, particularly for features Apple states were key to allowance, such as a rear cover facilitating energy transmission. *See* POPR at 41. BD Factors (a) and (b) thus strongly favor Masimo.

2. No file history arguments are substantially the same as the petition’s arguments.

Using the new *references*, Masimo’s *arguments* also do not “overlap” any in the file history. Thus, BD Factor (d) favors Masimo. Apple does not point to any specific combinations or motivations in the file history, only claiming to show the examiner “possess[ed]” individual references that themselves “contemplated” substantially the same “functionality” as Masimo’s references. POPR at 5, 52.

Masimo’s petition presents §103 combinations, including motivations to combine (*e.g.*, Pet. at 22–30, 36–39, 40, 53–54, 65–66, 74–75, 77–79, 82–83, 86–89, 91; *see* supporting citations to EX1003). For example, starting at page 24, the petition explains and illustrates how *Honda* suggests natural modifications to *Kotanagi* (which has available space for the coil), and how well they fit together.



Pet. at 25, 26. Similar motivation analyses are provided for other combinations.

But Apple never argues that these motivations are cumulative to anything in the file history, or that any *sets* of file history references can combine so naturally.

In *Advanced Bionics*, the Board explains a policy of deferral: “At bottom, this framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.” *Advanced Bionics* at 9. Apple shows no such previous “evaluations” to which the Board can now defer.

B. The Deficiencies Described Above Also Constitute Error

Apple’s POPR commits a fundamental error of logic by assuming the point to be proven. It repeatedly argues that the petition references are cumulative *because* they “suffer from the same deficiencies and fail to disclose or suggest the features that ultimately led to allowance.” POPR at 45; *see id.* at 3, 35, 36, 43. But the POPR never establishes the underlying deficiency premise and does not address Masimo’s detailed § 103 analysis of the new references. In contrast, Masimo’s entire petition disproves Apple’s premise—limitation by limitation.

Because the file history failed to evaluate any of the petition’s references, each ground in the petition demonstrates the extent of prosecution error, and BD Factors (c) and (e) favor Masimo. It is not *re*consideration warranted here, but consideration in the first instance. Thus, BD Factor (f) also favors Masimo.

“Material error” can be omission of even a secondary reference. *Oticon* at 19.

Here, *all* the references are new, and Apple has not even argued cumulativeness with respect to *Fraser*, *Orr*, *Park*, or *Jabori*. The different structures and motivations to combine presented in the petition show the art and arguments are not cumulative, so examination was flawed. *Oticon* at 15–16.

Apple alleges the petition fails to “grapple with” the file history. POPR at 1, 4, 46, 52. This ignores the cogent summary at the front of the petition, which quotes the Applicant: “the cited references do not disclose or suggest an electronic watch that includes an optical sensor and a charging coil that are configured to pass both optical signals and wireless power signals through dielectric material of a single cover.” Pet. at 6; *see* EX1003 ¶56. Although this led to allowance,

[T]he ’491 prosecution history shows [the] Examiner did not consider, and [the] Applicant did not cite, any of the references that Petitioner relies on in the grounds These [] teach what the Applicant said was missing . . . : a watch with an optical sensor and charging coil, both configured to pass their signals through a single glass cover.

Pet. at 6–7; EX1003 ¶57. After explaining the examination’s fundamental error, the petition then supports these claims with detailed analysis. Pet. at 15–91.

III. CONCLUSION

The Board should institute an IPR and cancel claims 1–19 of the ’491 patent.

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Dated: August 21, 2023

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Masimo v. Apple
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CERTIFICATE OF PAGE LIMITATIONS

The undersigned certifies that foregoing **PETITIONER’S REPLY ON § 325(D) IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 10,942,491** has 7 pages and therefore complies with the page limit authorized in the Board’s email dated August 14, 2023.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that, pursuant to 37 C.F.R. § 42.6(e) and with the agreement of counsel for Patent Owner, a true and correct copy of **PETITIONER’S REPLY ON § 325(D) IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 10,942,491** is being served electronically on August 21, 2023, to the e-mail addresses shown below:

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