

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

MASIMO CORPORATION,
Patent Owner

IPR2024-00243
Patent 10,722,159

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

LIST OF EXHIBITS

APPLE-1001	U.S. Patent No. 10,722,159 to Al-Ali (“the ’159 patent”)
APPLE-1002	Prosecution History of the ’159 patent (Application No. 16/791,963)
APPLE-1003	Declaration of Dr. Brian Anthony
APPLE-1004	U.S. Patent No. 8,670,819 to Iwamiya
APPLE-1005	U.S. Patent No. 9,392,946 to Sarantos
APPLE-1006	U.S. Patent No. 8,446,275 to Utter
APPLE-1007	RESERVED
APPLE-1008	U.S. Patent Pub. No. 2016/0058312 (“Han”)
APPLE-1009	Design of Pulse Oximeters, J.G. Webster; Institution of Physics Publishing, 1997 (“Webster”)
APPLE-1010	U.S. Patent No. 10,470,695 (the “’695 patent”)
APPLE-1011	<i>Apple v. Masimo</i> , Case No. IPR2020-01722, Paper 29 (Final Written Decision) (PTAB May 5, 2022) (the “’695 FWD”)
APPLE-1012	<i>Masimo Corporation, et al. v. Apple Inc.</i> , Redacted Complaint, ITC Inv. No. 337-TA-1276
APPLE-1013	RESERVED
APPLE-1014	Pang et al., A Neo-Reflective Wrist Pulse Oximeter, IEEE Access, Volume 2 (January 12, 2015)

- APPLE-1015 Li et al., A Wireless Reflectance Pulse Oximeter With Digital Baseline Control for Unfiltered Photoplethysmograms, IEEE Transactions on Biomedical Circuits and Systems, Vol. 6, No. 3 (June 2012)
- APPLE-1016 Cai et al., Implementation of a Wireless Pulse Oximeter Based on Wrist Band Sensor, 3rd International Conference on Biomedical Engineering and Informatics (BMEI 2010)
- APPLE-1017 International Publication No. WO 2001/17421 to Lindberg et al.
- APPLE-1018 Maattala et al., Optimum Place for Measuring Pulse Oximeter Signal in Wireless Sensor-Belt or Wrist-Band, 2007 International Conference on Convergence Information Technology
- APPLE-1019 U.S. Patent No. 5,663,264 to Kawai
- APPLE-1020 U.S. Patent No. 5,449,731 to Suzuki
- APPLE-1021 U.S. Patent No. 4,149,776 to Everett
- APPLE-1022 U.S. Patent No. 5,171,085 to Jaksich
- APPLE-1023 Definition of “resin” from Chambers Dictionary of Science and Technology, Chambers Harrap Publishers Ltd. (2007)
- APPLE-1024 Definition of “resin” from Concise Encyclopedia of Science & Technology, Sixth Edition, McGraw Hill (2009)
- APPLE-1025 Definition of “resin” from A Dictionary of Chemistry, Sixth Edition, Oxford University Press (2008)
- APPLE-1026 Definition of “resin” from Longman Dictionary of American English, Fifth Edition, Pearson Education Ltd. (2014)
- APPLE-1027 Definition of “resin” from Dictionary of Science and Technology, Second Edition, A&C Black Publishers Ltd. (2007)

- APPLE-1028 U.S. Patent Pub. No. 2006/0253010 (“Brady”)
- APPLE-1029 Excerpt of The American Heritage Dictionary of the English Language, Fifth Edition, Houghton Mifflin Harcourt Publishing Company (2011)
- APPLE-1030 Excerpt of Collins Dictionary, HarperCollins Publishers (2010)
- APPLE-1031 Excerpt of Merriam-Webster’s Collegiate Dictionary, Eleventh Edition, Merriam-Webster, Incorporated (2014)
- APPLE-1032 U.S. Patent No. 6,580,086 to Schulz
- APPLE-1033 U.S. Patent No. 6,801,799 to Mendelson
- APPLE-1034 Mendelson et al., A Wearable Reflectance Pulse Oximeter for Remote Physiological Monitoring, Proceedings of the 28th IEEE EMBS Annual International Conference (Sept. 3, 2006)
- APPLE-1035 U.S. Patent Pub. No. 2013/0267854 (“Johnson”)
- APPLE-1036 U.S. Patent Pub. No. 2005/0116820 (“Goldreich”)
- APPLE-1037 U.S. Patent No. 5,164,858 to Aguilera
- APPLE-1038 U.S. Patent No. 5,830,137 to Scharf
- APPLE-1039 U.S. Patent Pub. No. 2005/0267346 (“Faber”)
- APPLE-1040 ITC Inv. No. 337-TA-1276 Exhibit RX-0508 (Jianchu Yao and Steve Warren, Stimulating Student Learning with a Novel “In-House” Pulse Oximeter Design (2005))
- APPLE-1041 U.S. Patent Pub. No. 2014/0323829 (“LeBoeuf”)
- APPLE-1042 Fontaine et al., Reflectance-Based Pulse Oximeter for the Chest and Wrist, Worcester Polytechnic Institute (April 2013) *available at* <https://digital.wpi.edu/show/6969z2326>

- APPLE-1043 U.S. Patent No. 7,468,036 to Rulkov
- APPLE-1044 International Publication No. WO 2011/051888 (“Ackermans”)
- APPLE-1045 International Publication No. WO 2012/140559 (“Shmueli”)
- APPLE-1046 U.S. Patent No. 7,650,176 to Sarussi
- APPLE-1047 U.S. Patent Pub. No. 2002/0095092 (“Kondo”)
- APPLE-1048 U.S. Patent Pub. No. 2015/0355604 (“Fraser”)
- APPLE-1049 U.S. Patent No. 6,398,727 to Bui
- APPLE-1050 – 1059 [RESERVED]
- APPLE-1060 Combined Civil and Criminal Federal Court Management Statistics (Sep. 30, 2023) | United States Courts (uscourts.gov), available at: https://www.uscourts.gov/sites/default/files/fcms_na_distprofile0930.2023.pdf
- APPLE-1061 Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (USPTO June 21, 2022) (“*Director’s Guidance*”)
- APPLE-1062 Apple’s Complaint for Patent Infringement (Design), *Apple Inc., v Masimo Corporation, et al.*, Case No. 1-22-cv-01377 (D. Del. Oct. 20, 2022)
- APPLE-1063 Apple’s Complaint for Patent Infringement (Utility), *Apple Inc., v Masimo Corporation, et al.*, Case No. 1-22-cv-01378 (D. Del. Oct. 20, 2022)
- APPLE-1064 Defendant Masimo Corporation’s Answer to Complaint and Counterclaims, *Apple Inc., v Masimo Corporation, et al.*, Case No. 1-22-cv-01378 (D. Del. Dec. 12, 2022)

- APPLE-1065 Order Granting Joint Motion to Amend the Case Schedule, *Apple Inc., v Masimo Corporation, et al.*, Case No. 1-22-cv-01378 (D. Del. Sep. 21, 2023)
- APPLE-1066 Stipulation by Apple Inc.
- APPLE-1067 Email Identifying Masimo’s District Court Invalidity Grounds (Nov. 16, 2023)
- APPLE-1068 Excerpt of Apple’s District Court Expert Invalidity Report, *Apple Inc., v Masimo Corporation, et al.*, Case No. 1-22-cv-01378 (Nov. 22, 2023)
- APPLE-1069 Order Granting Unopposed Motion to Stay Certain Patent Counterclaims, *Apple Inc., v Masimo Corporation, et al.*, Case No. 1-22-cv-01378 (Jan. 10, 2023)
- APPLE-1070 [RESERVED]
- APPLE-1071 U.S. Patent No. 10,687,745 to Al-Ali (“the ’745 patent”)
- APPLE-1072 Institution Decision, *Apple Inc. v. Masimo Corp.*, IPR2022-01291 Pap. 15 (PTAB Feb. 1, 2023)
- APPLE-1073 U.S. Patent No. 10,470,695 to Al-Ali (“the ’695 patent”)
- APPLE-1074 Final Written Decision, *Apple Inc. v. Masimo Corp.*, IPR2020-01722 Pap. 29 (PTAB May 5, 2022)
- APPLE-1075 Joint Letter for March 20, 2024 Case Management Conference, *Apple Inc., v Masimo Corporation, et al.*, Case No. 1-22-cv-01378 (Mar. 16, 2024)
- APPLE-1076 Combined Civil and Criminal Federal Court Management Statistics (Dec. 31, 2023) | United States Courts (uscourts.gov), available at:
https://www.uscourts.gov/sites/default/files/fcms_na_distprofile1231.2023_0.pdf
- APPLE-1077 Median Time to Disposition in Cases Terminated After Hearing or Submission | United States Court of Appeals for the Federal

Circuit (Sep. 30, 2023), available at: [MedDispTimeMERITS-Table-FY23.pdf \(uscourts.gov\)](#)

APPLE-1078 *Sotera* Stipulation by Apple Inc.

I. DISCRETION SHOULD NOT PRECLUDE INSTITUTION

The *Fintiv* framework favors institution, at least because Masimo argued to Judge Hall that trial on Masimo’s patents should occur only after a decision that likely will not issue until September 2025, months after the Board’s projected July 2025 final written decision date. *See Director’s Guidance*, 8-9; EX1075, 4-5; EX1076, 14; EX1077, 1.

In more detail, Masimo in its March 28, 2024 POPR urged discretionary denial based on inaccurate assertions that “The Delaware Litigation is now ready for trial,” and that “trial will likely occur long before Apple’s ‘statistically indicated’ date.” POPR, 18-19. Contrary to those assertions, Masimo on March 16, 2024 argued in a joint letter to Judge Hall that “the most efficient path” for the Delaware Litigation “would be to try all of Masimo’s patents,” including the ’159 patent, “together in a single jury trial,” admitting that “[b]ecause the ITC patents are stayed by statute, this could occur only after the Federal Circuit rules on Apple’s appeal from the ITC investigation.” EX1075, 4-5. And on May 16, 2024, Judge Hall issued an order scheduling trial on Apple’s patents, while noting that trial on other issues including Masimo’s patents “will be scheduled at a later date.”

Based on the late-December 2023 docketing of Apple’s appeal and a most-recent median time from docketing to disposition of ITC-originated appeals of 20.5 months, trial on the ’159 patent is statistically expected to occur after September,

2025. EX1077, 1. And realistically, the court and the parties will need additional time after issuance of the appeal decision to prepare for trial on Masimo's 10 counterclaim-asserted patents, including the 5 patents that were statutorily stayed at the Delaware Litigation's outset. *See* EX1064, 128-147. As such, trial on the '159 patent will in all likelihood occur months after the Board's projected July 2025 final written decision date. *See also* EX1060, 14; EX1076, 14 (indicating median time-to-trial of 38.0 months); Petition, 77 (noting a statistically indicated December 2025 trial date); *Director's Guidance*, 9. For at least these additional reasons, the *Fintiv* framework favors institution. *See Director's Guidance*, 8-9.

But to remove any doubt and enable the Board to focus on the petition's compelling merits, Apple has submitted a *Sotera* stipulation. EX1078, 1; *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019 Pap. 12, 18-19 (PTAB Dec. 1, 2020) (precedential); *Director's Guidance*, 3, 9 ("the PTAB will not deny institution...under *Fintiv*...where a petition stipulates not to pursue in a parallel district court proceeding the same grounds as in the petition or any grounds that could have reasonably been raised in the petition").

Accordingly, Apple respectfully submits that the Board should not discretionarily deny institution, because (1) a holistic analysis of the *Fintiv* factors favors institution, (2) Apple has submitted a *Sotera* stipulation, and (3) the petition's merits are compelling. *See Director's Guidance*, 3-5, 9.

II. THE PETITION PROPERLY DEMONSTRATES OBVIOUSNESS OF THE CHALLENGED CLAIMS AS INTERPRETED BY MASIMO

As expressly noted within the Petition, Apple has applied the prior art to the Challenged Claims consistent with the positions advanced by Masimo in the Delaware Litigation. Pet., 23 (“light travels through window regions...which satisfies the definition of ‘opening’ that Masimo has advanced for purposes of infringement”), 47; *see also* EX2037, 307-308 (reproducing an image from Dr. Madisetti’s opening report, in which he labeled transparent material an “Opening in Dark-Colored Coating,” and opined on Masimo’s behalf that an “opening” is an area through which light is configured to pass, which could be empty space or transparent material)(citing Madisetti Rpt. at Ex. A, 49-59; Ex. B, 44-53); *see also* Madisetti Reply Rpt., 115-123.

Masimo cannot reasonably complain of the petition’s express application of its litigation interpretations for purposes of IPR, though to be clear Apple does not agree that those interpretations are correct. *See* POPR, 12-15. The Board has held time and again that a petition may rely on a patent owner (PO)’s construction, even if the petitioner believes that construction to be incorrect. *See, e.g., Western Digital Corp. v. SPEX Techs., Inc.*, IPR2018-00084 Pap. 14, 10-11 (PTAB Apr. 25, 2018)(“37 C.F.R. §104(b)(3) does not require Petitioner to express its subjective agreement regarding correctness of its proffered claim constructions”).

Under the Board’s rules, “the purpose of the petitioner’s claim construction is to provide patent owners with notice as to the basis for the challenge to the claims.” *General Electric Co. v. Vestas Wind Systems A/S*, IPR2018-00928 Pap. 9, 14 (PTAB Nov. 5, 2018); *see also 10X Genomics, Inc. v. Bio-Rad Labs., Inc.*, IPR2020-00086 Pap. 8, 18 (PTAB Apr. 27, 2020) (“the rule aims to increase efficiency and provide notice to the patentee”). Consistent with that purpose, ***an explicit statement of reliance on a PO’s litigation interpretations “suffices*** to identify claim constructions Petitioner is adopting for purposes of the requested review in compliance with § 104(b)(3).” *Id.*; *see also Apple Inc. v. CPC Patent Techs. Pty, Ltd.*, IPR2022-00601 Pap. 11, 12-14 (PTAB Sep. 28, 2022).

The Board has also repeatedly held that proffering a PO’s litigation interpretations without expressing subjective belief in their correctness fully complies with § 42.104 and ***is not grounds for denial***. *See, e.g., Lewis Machine & Tool Co. v. WHG Properties, LLC*, IPR2020-00373 Pap. 6 (refusing to deny when Petitioner applied PO’s construction that Petitioner believed was incorrect); *10X Genomics*, 18 (PTAB Apr. 27, 2020) (explaining that 42.104(b)(3) “does not prohibit Petitioner from submitting a claim construction it believes is incorrect and relying on that construction to show how the claim is unpatentable”).

In *Philip Morris Products, S.A. v. Rai Strategic Holdings, Inc.*, IPR2020-00921, Paper 13 at 42-44 (Aug. 5, 2021), the Board recognized that “[n]umerous

decisions have held that [Section 42.104(b)(3)] does not require a petitioner to express a subjective belief in the correctness of its proffered claim constructions.” Indeed, the Board expressly held that *Petitioner can “rely[] on claim constructions that it believes are incorrect.”* *Id.* (citing *Lewis* at 33-34); *see also Google LLC v. AGIS Software Development, LLC*, IPR2018-01085, Paper 10 at 10 (Nov. 19, 2018).

The cases cited in the POPR generally address a petitioner’s burden with respect to claim construction. The numerous cases cited above more specifically establish that Apple has met this burden by relying on Masimo’s constructions and did not need to endorse Masimo’s interpretations to rely on them in the Petition. *See, e.g.,* Pet., 23, 47; EX2043, 30-33. Apple has advanced a different “opening” construction in a non-infringement report, but the court has yet to issue a claim construction determination. As such, Apple respectfully submits that the Petition’s demonstration of obviousness under Masimo’s interpretation warrants institution.

Moreover, institution would be consistent with recent IPRs in which the Board found highly similar claims of related patent 10,687,745 that included “opening” features unpatentable over highly similar grounds. The Board previously found such features disclosed by Iwamiya, which further supports institution. *E.g.,* IPR2022-01291 Pap. 75, 26 (“we find Iwamiya’s device includes optical filter 17 mounted within an opening of light shielding frame 18”), 34; IPR2022-01465 Pap. 72, 29, 37-38; EX2037, 307. Accordingly, Apple respectfully requests institution.

Respectfully submitted,

Date: May 20, 2024

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on May 20, 2024, a complete and entire copy of this Petitioner's Reply to Patent Owner's Preliminary Response was provided by email to Patent Owner by serving the email correspondence addresses of record as follows:

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