

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

MASIMO CORPORATION,
Patent Owner.

IPR2022-01291
Patent 10,687,745 B1

Before JOSIAH C. COCKS, NEIL T. POWELL, and JAMES A. TARTAL,
Administrative Patent Judges.

TARTAL, *Administrative Patent Judge.*

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

I. INTRODUCTION

Apple Inc. (“Petitioner”)¹ filed a Corrected Petition pursuant to 35 U.S.C. §§ 311–319 requesting an *inter partes* review of claims 1, 9, 15, 18, 20, and 27 (“the Challenged Claims”) of U.S. Patent No. 10,687,745 B1 (Ex. 1001, “the ’745 patent”). Paper 10 (“Pet.”). Masimo Corporation (“Patent Owner”)² filed a Preliminary Response. Paper 11.

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314(b) (2018); 37 C.F.R. § 42.4(a) (2019). An *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Upon consideration of the Petition, the Preliminary Response, and the evidence of record, we conclude that the information presented shows a reasonable likelihood that Petitioner would prevail in showing the unpatentability of at least one of the Challenged Claims. Accordingly, we authorize an *inter partes* review to be instituted as to the Challenged Claims of the ’745 patent on the grounds raised in the Petition. Our factual findings and conclusions at this stage of the proceeding are based on the evidentiary record developed thus far (prior to Patent Owner’s Response). This is not a final decision as to patentability of claims for which *inter partes* review is instituted. Any final decision will be based on the record, as fully developed during trial.

¹ Petitioner identifies no additional real parties in interest. Pet. 47.

² Patent Owner identifies no additional real parties in interest. Paper 5, 2.

II. BACKGROUND

A. The '745 Patent

The '745 patent is titled “Physiological Monitoring Devices, Systems, and Methods,” and issued on June 23, 2020, from U.S. Patent Application No. 16/835,772, filed March 31, 2020. Ex. 1001, codes (21), (22), (45), (54). The '745 patent summarizes its disclosure as follows:

This disclosure describes embodiments of non-invasive methods, devices, and systems for measuring blood constituents, analytes, and/or substances such as, by way of non-limiting example, oxygen, carboxyhemoglobin, methemoglobin, total hemoglobin, glucose, proteins, lipids, a percentage therefor (e.g., saturation), pulse rate, perfusion index, oxygen content, total hemoglobin, Oxygen Reserve Index™ (ORI™) or for measuring many other physiologically relevant patient characteristics. These characteristics can relate to, for example, pulse rate, hydration, trending information and analysis, and the like.

Id. at 2:40–50.

Figures 7A and 7B of the '745 patent are reproduced below:

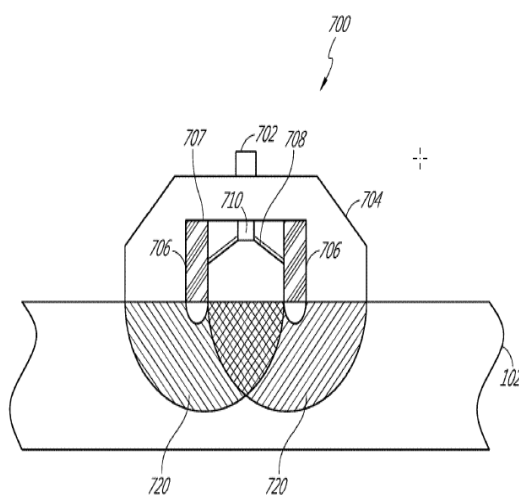


FIG. 7A

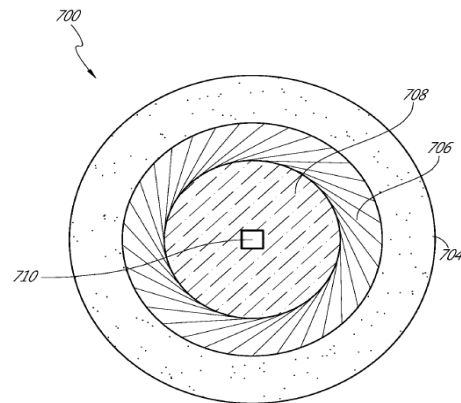


FIG. 7B

Figures 7A and 7B above depict side and top views, respectively, of a three-dimensional pulse oximetry sensor according to an embodiment of the '745

patent. *Id.* at 5:28–33. Sensor 700 includes emitter 702, light diffuser 704, light block (or blocker) 706, light concentrator 708, and detector 710. *Id.* at 10:49–51. The sensor functions to irradiate tissue measurement site 102, e.g., a patient’s wrist, and detects emitted light that is reflected by the tissue measurement site. *Id.* at 10:43–49. “[L]ight blocker 706 includes an annular ring having a cover portion 707 sized and shaped to form a light isolation chamber for the light concentrator 708 and the detector 710.” *Id.* at 11:10–12. “[L]ight blocker 706 and cover 707 ensures that the only light detected by the detector 710 is light that is reflected from the tissue measurement site.” *Id.* at 11:16–19.

Figure 8 of the ’745 patent is reproduced below:

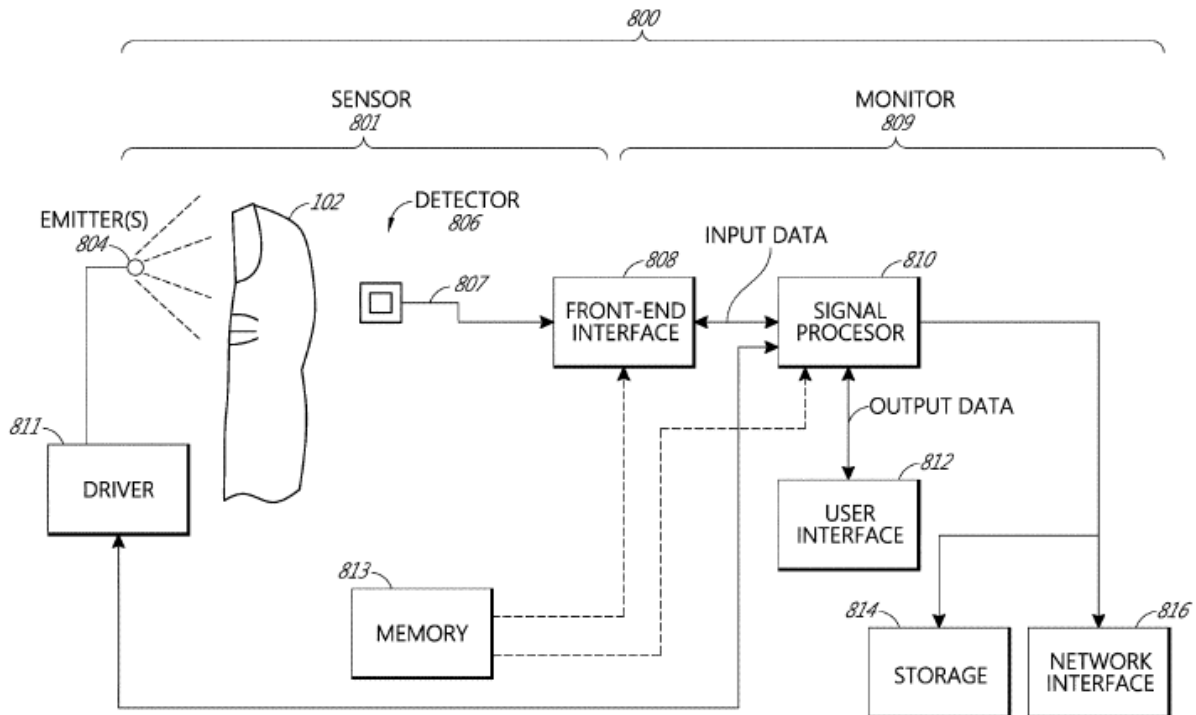


FIG. 8

Figure 8 above illustrates “a block diagram of an example pulse oximetry system capable of noninvasively measuring one or more blood analytes in a

monitored patient.” *Id.* at 5:34–37. Pulse oximetry system 800 includes sensor 801 (or multiple sensors) coupled to physiological monitor 809. *Id.* at 12:21–23. Sensor 801 includes emitter 804 and detector 806. *Id.* at 12:32–34. Monitor 809 includes signal processor 810, which “includes processing logic that determines measurements for desired analytes based on the signals received from the detector 806.” *Id.* at 13:33–40. Monitor 809 also includes user interface 812 that provides “an output, e.g., on a display, for presentation to a user of pulse oximetry system 800.” *Id.* at 13:33–35, 13:64–66.

B. Illustrative Claim

Petitioner challenges claims 1, 9, 15, 18, 20, and 27 of the ’745 patent. Pet. 1. Claims 1, 15, and 20 are independent. Claim 1 is illustrative of the claimed subject matter and is reproduced below.

1. A physiological monitoring device comprising:
 - a plurality of light-emitting diodes configured to emit light in a first shape;
 - a material configured to be positioned between the plurality of light-emitting diodes and tissue on a wrist of a user when the physiological monitoring device is in use, the material configured to change the first shape into a second shape by which the light emitted from one or more of the plurality of light-emitting diodes is projected towards the tissue;
 - a plurality of photodiodes configured to detect at least a portion of the light after the at least the portion of the light passes through the tissue, the plurality of photodiodes further configured to output at least one signal responsive to the detected light;
 - a surface comprising a dark-colored coating, the surface configured to be positioned between the plurality of photodiodes and the tissue when the physiological monitoring device is in use, wherein an opening defined in the dark-colored coating is configured to allow at least a

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.