

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC.,  
Petitioner,

v.

MASIMO CORPORATION,  
Patent Owner.

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IPR2022-01292  
Patent 10,687,745 B1

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

TARTAL, *Administrative Patent Judge.*

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

## I. INTRODUCTION

Apple Inc. (“Petitioner”)<sup>1</sup> 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 (“Challenged Claims”) of U.S. Patent No. 10,687,745 B1 (Ex. 1001, “the ’745 patent”). Paper 10 (“Pet.”). Petitioner concurrently filed another petition in another proceeding requesting *inter partes* review of the Challenged Claims on different grounds. *Apple, Inc. v. Masimo Corporation*, IPR2022-01291, Paper 10 (PTAB July 22, 2022) (“the ’1291 Petition”). Petitioner also filed a Notice Ranking Petitions requesting that we consider whether to institute review based on the ’1291 Petition prior to considering the Petition in this proceeding.<sup>2</sup> Paper 2 (“NRP”). In IPR2022-01291 we granted the ’1291 Petition and instituted an *inter partes* review of claims 1, 9, 15, 18, 20, and 27 of the ’745 patent. IPR2022-01291, Paper 15 (PTAB February 1, 2023).

Masimo Corporation (“Patent Owner”)<sup>3</sup> filed a Preliminary Response to the Petition. Paper 11. Patent Owner also filed a Response to the NRP of Petitioner. Paper 12.

For the reasons provided below, and based on the circumstances present here, we find a second petition challenging the same claims of the same patent is not warranted and exercise discretion under 35 U.S.C. § 314(a) to deny institution of an *inter partes* review in this proceeding.

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<sup>1</sup> Petitioner identifies no additional real parties in interest. Pet. 79.

<sup>2</sup> In the NRP Petitioner misidentifies what references are asserted in each petition; however, Petitioner’s discussion in the NRP of the references asserted in each petition makes clear that Petitioner seeks consideration of the ’1291 Petition prior to our consideration of the Petition in this proceeding. *See* Paper 2.

<sup>3</sup> 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<sup>TM</sup> (ORI<sup>TM</sup>) 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:

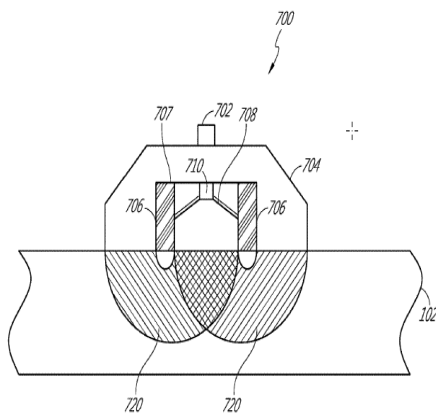


FIG. 7A

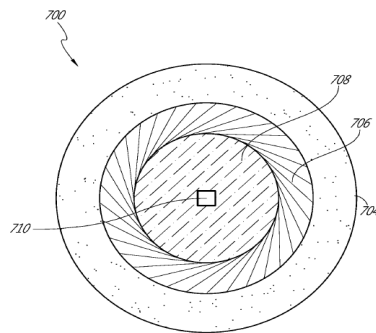


FIG. 7B

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:

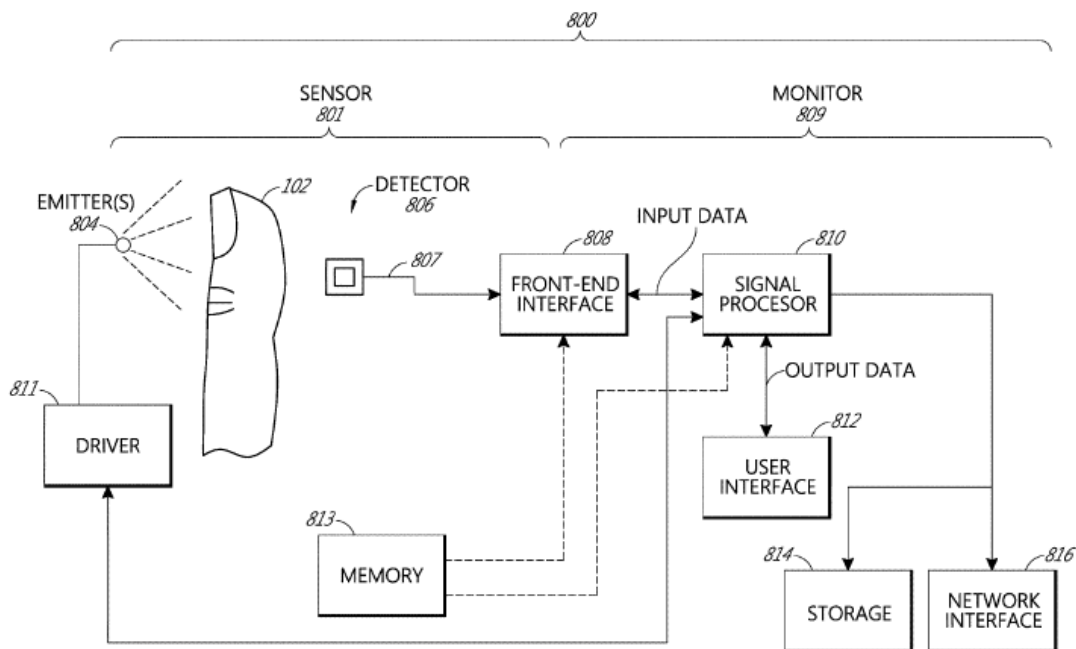


FIG. 8

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 portion of light reflected from the tissue to pass through the surface;
  - a light block configured to prevent at least a portion of the light emitted from the plurality of light-emitting diodes

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