

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

APPLE INC.,

Plaintiff,

v.

MASIMO CORPORATION and
SOUND UNITED, LLC,

Defendants.

C.A. No. 22-1377-MN-JLH

JURY TRIAL DEMANDED

MASIMO CORPORATION, SOUND
UNITED, LLC

Counter-Claimants,

v.

APPLE INC.

Counter-Defendant.

APPLE INC.,

Plaintiff,

v.

MASIMO CORPORATION and
SOUND UNITED, LLC,

Defendants.

C.A. No. 22-1378-MN-JLH

JURY TRIAL DEMANDED

MASIMO CORPORATION,
CERCACOR LABORATORIES, INC.,
SOUND UNITED, LLC

Counter-Claimants,

v.

APPLE INC.

Counter-Defendant.

REBUTTAL EXPERT REPORT OF STEVEN WARREN

Signed: 
Date: December 15, 2023

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

321. Additionally, for the reasons explained in this report, Apple does not infringe the '223 patent and therefore never had any belief that it infringed the '223 patent. Thus, Apple cannot have willfully infringed the '223 patent.

B. The '507 Patent Is Not Infringed

322. For the reasons explained below, I conclude that the Accused Products²⁵ do not infringe the Asserted Claims of the '507 patent.

1. Claim 13

323. Claim 13 of the '507 patent reads:

13. A computer-implemented method of informing a user of mobile measurement of oxygen saturation ("SpO2"), the computer-implemented method comprising:

outputting, from an optical sensor of an SpO2 measurement system, one or more signals responsive to light from a light source attenuated by tissue of the user at a measurement site, said one or more signals responsive to an oxygen saturation of said tissue; and

via a processing board of the SpO2 measurement system, the processing board in data communication with the optical sensor and a mobile computing device including a display:

receiving said one or more signals from the optical sensor;

processing said one or more signals to generate the SpO2 measurement values; and

outputting the SpO2 measurement values to the mobile computing device; and

via an application configured to execute commands on the mobile computing device:

generating a graphical user interface having a plurality of display portions;

²⁵ [REDACTED]

displaying, in at least one portion of the plurality of display portions, a representation of a physiological parameter of a plurality of physiological parameters comprising at least the SpO2 measurement values; and

displaying, in a different portion of the plurality of portions, a plurality of user inputs configured to allow the user to interact with at least one of the plurality of display portions or the application.

a. The Accused Products Do Not “Inform[] A User Of Mobile Measurement Of Oxygen Saturation (‘SpO2’)”

324. The ’507 patent claims “[a] computer-implemented method of informing a user of mobile measurement of oxygen saturation (‘SpO2’).” ’507 patent, claim 13.

325. I understand that the parties proposed the following constructions of “mobile measurement” as used in the ’507 patent:

Masimo’s Proposed Construction	Apple’s Proposed Construction
Preamble is not limiting; Plain and ordinary meaning	Preamble is limiting; “measurement during motion”

326. Apple’s proposed construction is correct for the reasons stated in my declarations regarding claim construction. *See* Warren Op. CC Decl. ¶¶ 96-111; Warren Rep. CC Decl. ¶¶ 65-69; *see also* ’507 patent, claim 13, 2:14-16, 2:49-57, 3:57-62, 4:66-67, 6:7-17, 9:47-54, 10:61-65, 10:65-11:1, 11:2-6, 14:64-66, Fig. 1A. To the extent the Court construes this term according to its plain and ordinary meaning, and to the extent the preamble is limiting, it is my opinion that Apple’s proposed construction would have been the plain and ordinary meaning of “mobile measurement” to a POSA, read in light of the claims, specification, and prosecution history, at the time of the alleged invention of the ’507 patent.

327. Further, it is my opinion that the Accused Products do not “inform[] a user of *mobile measurement* of oxygen saturation (‘SpO2’)” and therefore do not infringe Claim 13 of

therefore do not “inform[] a user of mobile measurement of oxygen saturation (‘SpO2’)” as required by Claim 13.

[illegible]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

b. The Accused Products Do Not “Output[] ... One Or More Signals Responsive To Light ...”

337. The ’507 patent requires “outputting, from an optical sensor of an SpO2 measurement system, one or more signals responsive to light from a light source attenuated by tissue of the user at a measurement site, said one or more signals responsive to an oxygen saturation of said tissue.” ’507 patent, claim 13.

338. I understand that the parties proposed the following constructions of “one or more signals” as used in the ’507 patent:

Masimo’s Proposed Construction	Apple’s Proposed Construction
Plain and ordinary meaning; Masimo states that “‘detected’ ... is inherent in any signal output by a sensor.” JCCB at 35.	raw detected signal(s)

339. Apple’s proposed construction is correct for the reasons stated in my declarations regarding claim construction. *See* Warren Op. CC Decl. ¶¶ 112-124; Warren Rep. CC Decl. ¶¶ 70-72; *see also* ’507 patent, claim 13, 4:46-5:1, 5:46-48, 6:1-7, 6:18-57, 7:3-8, 9:23-25, 9:62-65, 10:30-34, 10:55-61, 11:8-11, 11:51-53, 16:62-67, 17:22-32, Fig. 2.

340. Further, to the extent the Court construes this term according to its plain and ordinary meaning, it is my opinion that Apple’s construction of “raw detected signals” would have been the plain and ordinary meaning of “one or more signals *responsive to light* from a light source attenuated by tissue of the user at a measurement site, said one or more signals responsive to an oxygen saturation of said tissue” to a POSA, read in light of the claims, specification, and prosecution history, at the time of the alleged invention of the ’507 patent. In particular, a POSA would have understood that outputting one or more signals “responsive to light” refers to outputting raw signals as detected by a photodetector rather than signals that had been converted,

[REDACTED]

amplified, filtered, or otherwise processed. For example, in describing the “Technical Background for the Masimo Asserted Patents,” Dr. Madisetti explains that the “detector [] *responds* to the intensity of the optical radiation.” Madisetti Op. Rpt. ¶ 61 (citing ’223 patent at 2:18-23); *see also id.* ¶ 66 (stating *[t]he detector(s)* generate an output signal proportional to the intensity of the detected light.”). Thus, Dr. Madisetti recognizes that the signals that are “responsive to light” are the signals from the detector.²⁷

341. Further, it is my opinion that, under either party’s proposed construction, the Accused Products do not “output[] ... one or more signals responsive to light ...” and therefore do not infringe Claim 13 of the ’507 patent.

Masimo’s Proposed Construction

342. I understand that Masimo concedes that the ’507 patent requires the signal output from the optical sensor to the processing board to be the “detected” signal. JCCB at 35. Specifically, Masimo argues that outputting the signal that is “‘detected’ ... is inherent in any signal output by a sensor.” *Id.* For the reasons stated in my Opening Claim Construction Declaration, I agree with Masimo that the ’507 patent requires outputting the signal as “detected.” *See* Warren Op. CC Decl. ¶¶ 112-124; Warren Rep. CC Decl. ¶¶ 70-72. However, I disagree that outputting the “detected” signal would have been inherent to any signal output by a sensor at the time as Masimo argues. In particular, pulse oximeters at the time could (1) perform processing only on one or more processors that were remote (i.e., separate) from the sensor, (2) perform signal processing on the sensor itself, or (3) divide signal processing between the sensor and one or more

²⁷ *See also* Masimo’s June 22, 2023 Responses to Apple Inc.’s Initial Invalidity Contentions at 216 (asserting that “said one or more signals responsive to an oxygen saturation of said tissue” is not indefinite and that a POSA would read that claim language in view of the “detailed disclosure of the ’507 Patent’s specification” relating to “raw detected signals.”).

[REDACTED]

remote processors. Thus, while I agree with Masimo that the '507 patent requires outputting the “detected” signal, I disagree that such an architecture would have been inherent to all sensor designs.

343. Dr. Madisetti alleges that [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Apple’s Proposed Construction

344. Apple’s proposed construction requires the signals output from the optical sensor to the processing board to be “raw”—that is, the signals must be unprocessed—in addition to being the signals as “detected” by the photodetectors. However, [REDACTED]

[REDACTED]

³⁰ The term “ASIC” stands for application-specific integrated circuit and generally refers to a processor designed to perform a specific task rather than general purpose computing.