

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner,

v.

MASIMO CORPORATION,

Patent Owner.

Case IPR2024-00294
U.S. Patent 10,736,507

DECLARATION OF R. JAMES DUCKWORTH, PH.D.

I declare under penalty of perjury that all statements made herein on my own knowledge are true and that all statements made on information and belief are believed to be true.

I reserve the right to supplement my opinions in the future to respond to any arguments or positions Apple may raise, taking account of new information as it becomes available to me.

Dated: April 24, 2025



R. James Duckworth, Ph.D.

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I. INTRODUCTION

1. I, R. James Duckworth, Ph.D. have been retained by Knobbe, Martens, Olson & Bear, LLP, counsel for Patent Owner Masimo Corporation (“Masimo”). I am making this declaration at the request of Masimo in the matter of Inter Partes review IPR2024-00294, which concerns U.S. Patent No. 10,736,507 (“the ’507 Patent”). I understand that Masimo has asserted the ’507 Patent against Petitioner Apple Inc. (“Petitioner” or “Apple”) in *Apple Inc. v. Masimo Corporation and Sound United, LLC*, U.S. District Court for the District of Delaware, Case No. 1:22-cv-01378-MN (“the Delaware Litigation”). I understand that this Declaration is being submitted as Exhibit 2058 in the above-identified IPR proceeding.

2. I am being compensated for my work in this matter at my standard hourly rate for expert consulting services. My compensation in no way depends on the outcome of this proceeding. I have no financial interest in any party to this matter.

II. INFORMATION AND MATERIALS CONSIDERED

3. I have been asked to provide technical expert opinions relating to the validity of the claims of the ’507 Patent. In conducting the analyses and forming the opinions set forth in this Declaration, I have reviewed and considered the ’507 Patent’s claims, specification, priority applications, and file history. I have also reviewed and considered Apple’s petition for IPR2024-00294 (“the Petition”), the

prior art references that Apple relies on in the petition, Apple's Opposition to the Revised Motion to Amend ("Opposition"), the third declaration of Dr. Thomas Kenny (Exhibit 1109), the references Apple asserts in its Opposition, and any other materials I discuss or cite herein, including but are not limited to:

Exhibit No.	Description
1109	Third Declaration of Dr. Thomas Kenny
1110	U.S. Patent Application Pub. No. 2011/0082711 to Poeze et al. ("Poeze")
1111	U.S. Patent Application Pub. No. 2010/0030040 to Poeze et al. ("Poeze-040")
1112	U.S. Patent Application Pub. No. 2006/0211924 to Dalke et al. ("Dalke")
1113	U.S. Patent Application Pub. No. 2011/0187245 to Pakula et al. ("Pakula")
1114	U.S. Patent Application Pub. No. 2003/0176815 to Baba et al. ("Baba")
1118	PCT Pub. No. WO2011/127446 to Soden et al. ("Soden")
2045	U.S. Patent App. No. 15/880,071

4. In preparing this Declaration, I have considered my own knowledge and experience, including my work in the fields of electrical and computer engineering; my experience teaching within those subjects; my experience working

with others involved in those fields; and the materials identified herein. I understand my analyses and opinions, including my review of any materials cited herein, should be made from the perspective of a person of ordinary skill in the art related to the '507 Patent at the relevant time (i.e., a "POSITA"). I understand the relevant time is September 20, 2012 for the Revised Motion to Amend claims. Accordingly, my analyses and opinions are made from that relevant perspective.¹ My testimony herein refers to the knowledge of a POSITA as of the relevant time, unless indicated otherwise.

5. Any figures appearing in this Declaration were prepared with the assistance of counsel and reflect my understanding of the '507 Patent and the materials discussed herein. Any emphasis or annotations herein are added unless I have indicated otherwise.

III. EXPERIENCE AND QUALIFICATIONS

6. My qualifications are set forth in my curriculum vitae, a copy of which was submitted as Exhibit 2001. A summary of my experience and qualifications is provided in my previous declarations, Exhibits 2002 and 2037.

¹ Apple alleges the original disclosure does not describe element [23c], particularly a "wrist-mounted device." Opposition at 6. Regardless of whether this or any other RMTA claim is entitled to a priority date of September 20, 2012 or September 20, 2013, it does not change my opinions herein.

IV. APPLICABLE LEGAL STANDARDS

7. I am an electrical and computer engineer by training and profession. The opinions I express in this Declaration involve the application of my knowledge and experience to the evaluation of the '507 Patent and certain cited prior art discussed herein.

8. Although I have been involved as a technical expert in patent matters before, I am not an expert in patent law. Therefore, I have been advised of certain principles of patent law applicable in this matter, which I have used in arriving at my determinations and opinions. The paragraphs below express my understanding of the legal requirements I have used in forming my opinions.

A. Claim Construction

9. I understand that, in assessing the patentability of a patent claim, the Patent Office generally construes claim terms by giving them their ordinary and customary meaning, as they would have been understood by a POSITA at the time of the invention in view of the intrinsic record (patent specification and file history). However, I understand that the inventors may, in the patent specification, expressly define a claim term to have a meaning that differs from the term's ordinary and customary meaning. I also understand that the inventors may disavow or disclaim certain claim scope, thereby departing from the ordinary and customary meaning, when the intrinsic record demonstrates that a clear and unambiguous disavowal or

disclaimer has occurred. I understand that extrinsic evidence, such as relevant technical literature and dictionaries, may be useful in ascertaining how a POSITA would have understood a claim term, but the intrinsic record is the primary source for determining the meaning of claim terms. For the purposes of this review, and to the extent necessary, I have interpreted each claim term in accordance with the principles set forth in this paragraph.

10. I understand that the preamble of a claim is limiting where it supplies antecedent basis for a subsequent claim limitation.

11. I understand that a “kit claim” uses the word “kit” to refer to a combination of components. I understand that a kit claim may recite a combination of components prior to use before use and that the combination of components may be for use in performing a method.

B. Written Description

12. I understand that pre-AIA 35 U.S.C. § 112 first paragraph and AIA 35 U.S.C. § 112(a), require that the patent specification contain a written description of the invention, and that a patent claim is invalid if the patent specification does not satisfy this requirement.

13. I understand that to satisfy this written description requirement, the specification must reasonably convey to one of ordinary skill in the art that the inventors had “possession” of the claimed invention at the time the application was

filed, i.e., that the inventors invented what is claimed. I further understand that the level of detail required to satisfy the written description requirement depends on the nature and scope of the claims and on the complexity and predictability of the relevant technology.

14. I understand that the written description requirement does not require that the specification recite the claimed invention in any particular way. I also understand from counsel that the written description requirement does not require a single embodiment to disclose all claim limitations and that written description support can be found in different embodiments that have been linked together in the specification.

15. I understand that the written description focuses on disclosure, and that analysis of the sufficiency of a patent's disclosure requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art as of the patent's effective filing date.

C. Definiteness

16. I understand that pre-AIA 35 U.S.C. § 112, second paragraph and AIA 35 U.S.C. § 112(b), require that the language of a patent claim must be sufficiently definite, such that it particularly points out and distinctly claims the subject matter of the alleged invention.

17. I understand that a patent claim is indefinite if the claim language, when viewed in the context of the specification and the prosecution history, does not inform a skilled artisan of the bounds of the claims with reasonable certainty. I also understand that a claim is indefinite if a skilled artisan would understand the claim language to have several different meanings and no informed and confident choice is available among the contending meanings, or if no meaning can be ascertained at all.

18. I understand that the definiteness requirement does not require that claims provide absolute precision, but the claims must provide sufficient clarity to a skilled artisan about the scope of the alleged invention.

19. I understand that definiteness is assessed from the perspective of a person of ordinary skill in the art as of the patent's effective filing date.

D. Obviousness

20. I understand that a claim is unpatentable as "obvious" under 35 U.S.C. § 103 if the claimed subject matter as a whole would have been obvious to a POSITA at the time of the invention. I also understand that an obviousness analysis takes into account the following factors, which are sometimes referred to as the Graham factors: (1) the scope and content of the prior art, (2) the differences between the claimed subject matter and the prior art, (3) the level of ordinary skill in the art at the time of the invention, and (4) "objective indicia of non-obviousness," also

referred to as secondary considerations of non-obviousness. I understand that these objective indicia include considerations such as whether there was: (i) any unexpected result(s); (ii) skepticism of the invention; (iii) a teaching away from the invention; (iv) failure of others to find the solution(s) provided by the claimed invention; (v) copying by other companies; (vi) commercial success due to the merits of the claimed invention; (vii) praise by others for the invention; and (viii) a long-felt need in the industry for the claimed invention.

21. In determining the scope and content of the prior art, it is my understanding that a reference is considered appropriate prior art if it falls within the field of the inventor's endeavor. In addition, a reference is appropriate prior art if it is reasonably pertinent to the particular problem with which the inventor was involved. A reference is reasonably pertinent if it logically would have commended itself to an inventor's attention in considering his or her problem. If a reference relates to the same problem as the claimed invention, that supports use of the reference as prior art in an obviousness analysis.

22. To assess the differences between prior art and the claimed subject matter, it is my understanding that 35 U.S.C. § 103 requires the claimed invention to be considered as a whole. This "as a whole" assessment requires showing that a POSITA at the time of invention, confronted by the same problems as the inventor

and with no knowledge of the claimed invention, would have selected the elements from the prior art and combined them in the claimed manner.

23. It is my further understanding that the Supreme Court has recognized several rationales for combining references or modifying a reference to show obviousness of claimed subject matter. Some of these rationales include: combining prior art elements according to known methods to yield predictable results; simple substitution of one known element for another to obtain predictable results; a predictable use of prior art elements according to their established functions; applying a known technique to a known device (method or product) ready for improvement to yield predictable results; choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; and some teaching, suggestion, or motivation that would have led a POSITA to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

24. I understand that the obviousness analysis must be performed from the perspective of a POSITA at the time of the alleged invention. I understand this requirement is to help avoid using impermissible hindsight in the analysis. I further understand that the claims of the patent-at-issue must not be used to provide a road map for obviousness; instead, the claims would have been obvious only if a POSITA, without knowledge of the patent-at-issue, would have been motivated to

combine the teachings of the prior art to arrive at the claimed invention and had a reasonable expectation of success in doing so.

25. I understand that an assessment of what a reference discloses or teaches for purposes of an anticipation analysis or an obviousness analysis must be conducted from the perspective of a POSITA at the time of the invention. In other words, a reference discloses or teaches a claim limitation if a POSITA would, at the relevant time, interpret the reference as expressly, implicitly, or inherently disclosing the claim limitation. I further understand that a reference does not need to use the exact language of the claim to disclose a claim limitation. I also understand that something is only “inherent in,” and therefore taught by, the prior art if it necessarily flows from the explicit disclosure of the prior art. I understand the fact that a certain result or characteristic may be present in the prior art is not sufficient to establish inherency.

26. I understand that the obviousness analysis also must show that the prior art, taken as a whole, enables a POSITA to make and use the claimed invention.

27. Applying these legal standards, I believe Substitute Claims 21-24 of the '507 Patent would not have been obvious to a POSITA based on the grounds asserted by Apple in its Opposition, as discussed below.

V. LEVEL OF ORDINARY SKILL IN THE RELEVANT ART

28. The field of art relevant to the '507 Patent is devices and sensors for the non-invasive measurement of physiological parameters, such as oxygen saturation, and is discussed in my previous declarations, Exhibits 2002 and 2037.

VI. SUMMARY OF OPINIONS

29. I have conducted analyses leading to the opinions expressed in this Declaration. To summarize my opinions, it is my conclusion, from a technical point of view, that:

- Apple fails to show that any of Substitute Claims 21-24 lack adequate written description support;
- Apple fails to show that any of Substitute Claims 21-24 are indefinite;
- (Grounds 1A-1D) Substitute Claims 21-24 would not have been obvious to a POSITA based on the combination of Poeze, Kianl, Baba, and Pakula, or with additional references Moon, Diab, or Teller;
- (Grounds 2A-2D) Substitute Claims 21-24 would not have been obvious to a POSITA based the combination of Poeze, Kianl, Baba, Pakula, and Lin or with additional references Moon, Diab, or Teller;
- (Grounds 3A-3D) Substitute Claims 21-24 would not have been obvious to a POSITA based on the combination of Poeze, Kianl, Baba, and Soden or with additional references Moon, Diab, or Teller; and

- (Grounds 4A-4D) Substitute Claims 21-24 would not have been obvious to a POSITA based on the combination of Poeze, Kianl, Baba, Soden, and Lin or with additional references Moon, Diab, or Teller.

30. Below, I provide the complete analyses supporting my opinions.

VII. SUBSTITUTE CLAIMS

31. Below I have included the substitute claims in the Revised Contingent Motion to Amend, along with the limitation labels used in Apple’s Opposition:

[21pre]	A computer-implemented method of informing a user of mobile measurement of oxygen saturation (“SpO2”), the computer-implemented method comprising:
[21a]	outputting, from an optical sensor of an SpO2 measurement system, one or more <u>analog</u> signals responsive to light from a light source attenuated by tissue of the user at a measurement site, said one or more <u>analog</u> signals responsive to an oxygen saturation of said tissue; and
[21b]	via a processing board of the SpO2 measurement system, the processing board in data communication with the optical sensor and a <u>smartphone</u> mobile computing device including a <u>touch-sensitive smartphone display</u> :
[21c]	receiving <u>through a wired connection</u> said one or more <u>analog</u> signals from the optical sensor;
[21d]	processing said one or more <u>analog</u> signals to generate the SpO2 measurement values <u>and heart rate</u> ; and
[21e]	<u>wirelessly</u> outputting the SPO2 measurement values <u>and heart rate</u> to the <u>smartphone</u> mobile computing device; and
[21f]	via an application configured to execute commands on the <u>smartphone</u> mobile computing device:
[21g]	generating a graphical user interface having a plurality of display portions <u>on the touch-sensitive smartphone display</u> ;
[21h]	displaying, in at least one portion of the plurality of display portions <u>at one or more times</u> , a representation of a physiological parameter of a plurality of physiological parameters comprising the SpO2 measurement values;

[21i]	<u>displaying, in at least one portion of the plurality of display portions at one or more times, a graph of a history of the SpO2 measurement values;</u>
[21j]	<u>displaying, in at least one portion of the plurality of display portions at one or more times, a graph of a history of the heart rate;</u>
[21k]	<u>displaying, in at least one portion of the plurality of display portions at one or more times, a graphical representation of a heart; and</u>
[21l]	<u>displaying, in a different portion of the plurality of portions, a plurality of user inputs configured to allow the user to use the touch-sensitive smartphone display to interact with at least one of the plurality of display portions or the application;</u>
[21m]	<u>wherein the computer-implemented method is configurable to authenticate user data access by using at least one of fingerprint, facial, and voice recognition technologies;</u>
[21n]	<u>the processing board surrounded within a protective assembly comprising upper and lower shells and a rounded rectangular enclosure forming a cavity with upper and lower openings, the openings having an inner ledge and a perimeter lip sized and configured to receive the upper and lower shells to fill the openings such that the perimeter lip surrounds at least a portion of perimeter sides of the upper and lower shells;</u>
[21o]	<u>the light from the light source comprises at least red and infrared light; and</u>
[21p]	<u>the SpO2 measurement system is configured to be portable by including the sensor and processing board together, wirelessly connectable to the smartphone mobile computing device for display of physiological data.</u>

Claim 22 of the Substitute RMTA Claims recites:

[22pre]	The mobile pulse oximetry system of claim ~~[[13]]~~ 21, further comprising, via the application:
[22a]	perform a trend analysis on received SpO ₂ measurement values; and
[22b]	display results of the trend analysis in at least one portion of the plurality of display portions;
[22c]	<u>wherein the processing said one or more analog signals comprises applying an advanced signal processing algorithm with data filtering.</u>

Claim 23 of the Substitute RMTA Claims recites:

[23a]	The computer-implemented method of claim [[13]]21, further comprising, via the application, updating the representation of the physiological parameter to comprise one or more of a plurality of graphical representations of the SpO2 measurement values, the plurality of graphical representations comprising at least one of bar graphs or charts;
[23b]	<u>the rounded rectangular enclosure comprising, on a first side, a first transition from the enclosure to a tapered flexible support member, and on a second side opposite the first side, a second transition from the enclosure to a tapered flexible support member;</u>
[23c]	<u>wherein the sensor and processing board are provided together with a wrist-mounted device.</u>

Claim 24 of the Substitute RMTA Claims recites:

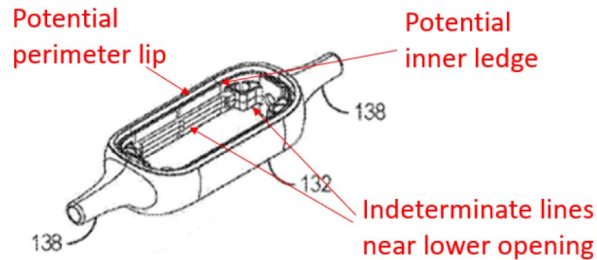
[24]	The computer-implemented method of claim [[13]]21, <u>wherein the protective assembly is configured to protect sensitive circuitry of the processing board from water damage further comprising wirelessly transmitting the SpO2 measurement values from the SpO2 measurement system to the mobile computing device.</u>
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VIII. APPLE FAILS TO SHOW THE SUBSTITUTE CLAIMS LACK WRITTEN DESCRIPTION SUPPORT

A. The Specification Teaches The Claimed “Openings Having An Inner Ledge And A Perimeter Lip”

32. Apple labels Figure 1C of the '507 Patent to indicate an “inner ledge” and a “perimeter lip” in an upper opening, consistent with claim limitation [21n].

Opposition at 2-3. This is shown below in Apple’s annotated figure:



EX2045, FIG. 1C (partial)

Id.

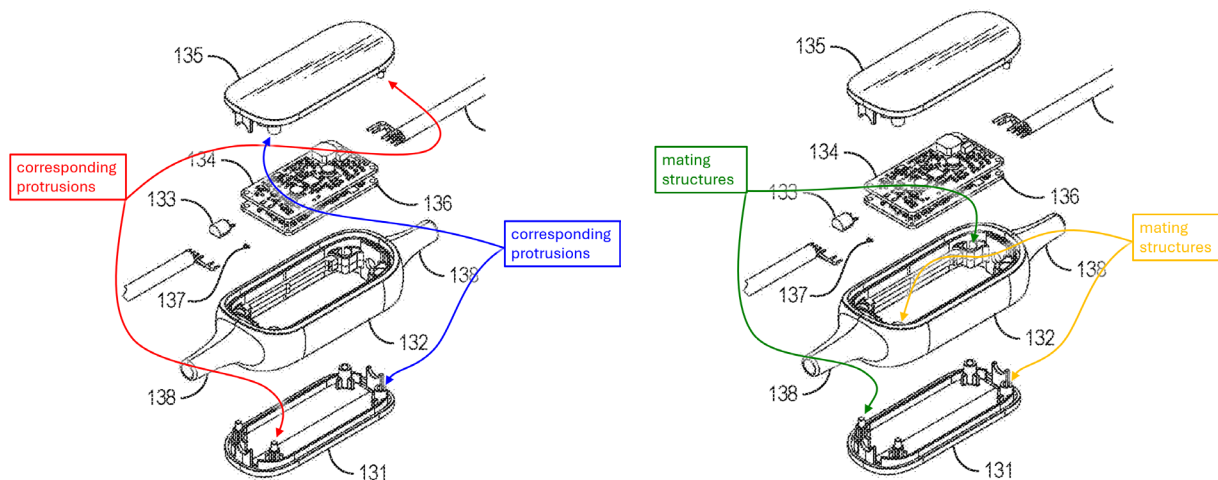
33. Apple argues that Claim 21 requires that “each of the upper and lower openings must have ‘an inner ledge and a perimeter lip sized and configured to receive’ a respective shell.” *Id.* at 2. Under Apple’s analysis, because Figure 1C does not expressly illustrate lip and ledge structures in both the upper and lower openings, the ’507 patent specification does not provide written description support for the claim.

34. The relevant portion of Claim 21 states:

the processing board surrounded within a protective assembly comprising upper and lower shells and a rounded rectangular enclosure forming a cavity with upper and lower openings, the openings having an inner ledge and a perimeter lip sized and configured to receive the upper and lower shells to fill the openings such that the perimeter lip surrounds at least a portion of perimeter sides of the upper and lower shells

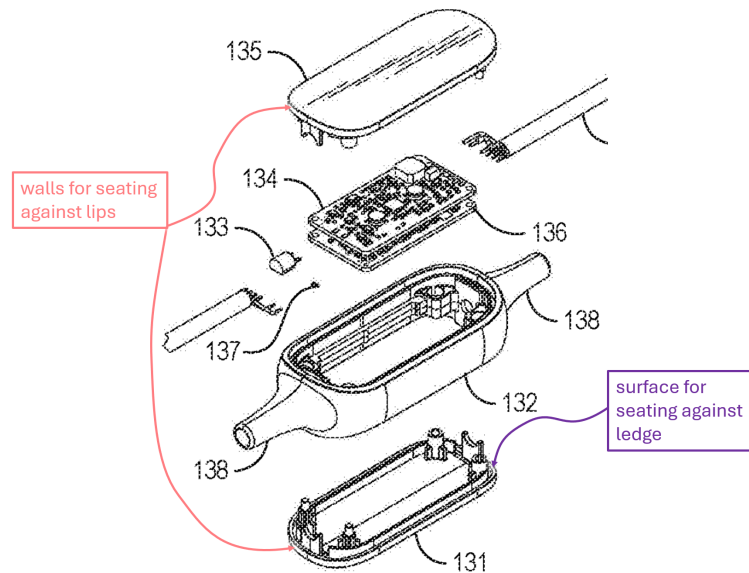
35. Apple interprets this passage to require that “each” opening has its own inner ledge and perimeter lip. In my opinion, applying Apple’s interpretation, a POSITA would have understood from the figures that the upper and lower openings are the same, as are the respective upper and lower shells that fill those openings.

Therefore, the patent did not need to separately illustrate a view of the bottom opening. The same claimed ledge and lip are present in the upper opening and the lower opening. The structures on the upward-facing interior surface of the lower shell correspond to and mate with the structures in the upper opening, thereby disclosing that the two shells are interchangeable, as shown below.



See Exhibit 2045, FIG. 1C.

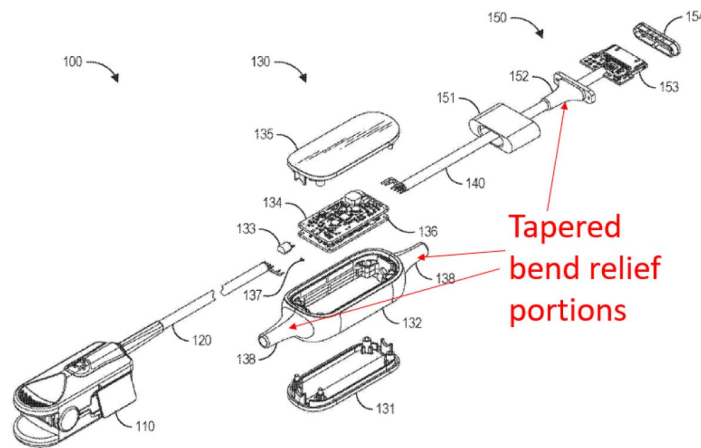
36. the '507 patent also explains that “the upper and lower shells 135, 131 can be formed to fit together with the enclosure 132 in a substantially water-tight manner.” *Id.* at [0042]-[0043], [0038]. Consistent with this teaching, if the upper shell provided a seal, and the lower shell did not, the enclosure would not be water tight. Accordingly, the symmetry of the enclosure includes complementary sealing structures to receive each of the upper and lower shells:



Id. at FIG. 1C. Because of its symmetrical figures, the '507 Patent teaches that the complimentary sealing structures shown for the top shell are also used for the bottom shell. Therefore, it is my opinion that from the figures of the '507 Patent a POSITA would understand that the upper and lower openings each have a ledge and a lip as claimed.

B. The Specification Teaches The Claimed Transitions To “Tapered Flexible Support Members”

37. Regarding limitation [23b], Apple argues the specification does not disclose this limitation transitions to “tapered flexible support members.” However, Apple itself highlights the two tapered flexible support members (i.e., bend relief portions 138) on the enclosure 132 of Figure 1C, as shown below.



EX2045, FIG. 1C

Opposition at 6.

38. The enclosure has a transition for each of these tapered support members. Apple argues this Figure 1C embodiment is distinct from other embodiments having wireless transmission, but this is not accurate. Opposition at 5. Apple speculates wireless-transmission embodiments replace cable 140 with a wireless connection and, therefore, have just one bend relief portion 138. *Id.* However, the '507 Patent does not support Apple's assertion. Every figure showing the structure of the module 130 or enclosure 132 shows it with two bend relief portions (labeled 138 in FIG. 1C). Exhibit 2045, FIGS. 1A, 1B, 1C, 5A, 5B, 5C. Further, the specification never says wireless-transmission embodiments lack a second bend relief portion 138. At most, Apple speculates wireless-transmission-only embodiments could omit a second bend relief portion 138, but Apple identifies no disclosure that they necessarily must omit a second bend relief portion 138 or the second cable 120. Opposition at 5-6.

39. Apple argues that Masimo picks and chooses claim limitations from different, unlinked embodiments. Opposition at 4. However, Figure 1C as described in paragraphs [0032]-[0049] includes a single embodiment with both: (1) bend relief portions 138 on either side of enclosure 132; and (2) wireless transmission. Exhibit 2045 at Fig. 1C, [0041], [0049]. Apple argues paragraph [0027] discloses that wired transmission through cable 140 or wireless transmission are exclusive alternatives. Opposition at 5. However, Apple’s argument contradicts the specification. For example, Apple ignores paragraph [0049] and FIG. 1C, which disclose that port 150 is both (1) attached to cable 140 and (2) “equipped with” a wireless interface. Exhibit 2045 at [0049], FIG. 1C. Therefore, this specification embodiment does not “replace” cable 140 with a wireless connection. Instead, it uses that cable 140 to link to a port 150 with a wireless interface. Also, the port 150 can include (1) a wired connection (such as “an iPhone port” or “an Ethernet port,” among others) *and* (2) “one or more wireless interfaces.” *Id.* at [0049]. For example, the specification discloses that port 150 can have a wired connection *and* “further...can be equipped with one or more wireless interfaces.” *Id.* Therefore, in my opinion, a POSITA would have understood paragraph [0049] discloses a device with both a wired connection and a wireless interface.

40. Additionally, Apple argues the specification does not disclose that the bend relief portions 138 are “flexible.” Opposition at 5-6. However, paragraph

[0041] of the specification discloses that the bend relief portions 138 provide a “gradual transition from the flexible cables to substantially rigid connection points with the processing board 134.” Exhibit 2045 at [0041]. In my opinion, a POSITA would have understood this “gradual transition” from flexible to rigid teaches that at least some portion of each bend relief portion 138 is flexible relative to the connection points. *Id.*

41. Apple also argues the specification discloses that the bend relief portions 138 “prevent” flexing. Opposition at 5. But in my opinion, Apple is incorrect. As the specification explains, “[t]he bend relief portions 138 can prevent mechanical force, such as an axial load or flexing, that is applied to the exterior of either cable 120,140 ***from being transferred to the electrical terminations with the processing board 134.***” Exhibit 2045 at [0041]. In my opinion a POSITA would have understood that the “gradual transition” from flexible to rigid protects the electrical terminations from flexing force but does not prevent the bend relief portions from flexing. *Id.*

42. Apple also argues, with respect to limitation [23b]’s first and second “transition[s] from the enclosure to a tapered flexible support member” that:

If PO relies on the bend relief portions 138 as support for the “tapered flexible support member[s]” (which is unclear from the RMTA), there is no support for the claimed “transition” [from the enclosure to a tapered flexible support member] as it is the bend relief portions 138 themselves that are described as “providing a gradual transition.”

Opposition at 6. However, Apple’s argument misinterprets limitation [23b] in two ways. Apple’s argument improperly incorporates into the claim the specification’s disclosure of a transition from flexible to rigid. *Id.* However, the claim does not require a flexible-to-rigid transition. Instead, the claimed “transition” is a feature of the enclosure.

43. Apple’s argument also erroneously assumes that the claimed “transition” is a structural limitation separate from both the “enclosure” and the “tapered flexible support member.” *Id.* However, the claimed “transition” does not recite additional or separate structure. Instead, it is the boundary between the enclosure and the tapered flexible support member. Figure 1C discloses that boundary. Even if structure were needed, Figure 1C and paragraph [0041] disclose a physical connection between the enclosure and bend relief portions, which in my opinion, a POSITA would understand is a “transition.” *See, e.g.*, Exhibit 2045 at [0041] (describing bend relief portions that are pre-molded and formed with enclosure).

IX. THE SUBSTITUTE CLAIMS ARE NOT INDEFINITE

A. Limitation [21p] Is Not Indefinite

44. Apple argues two portions of limitation [21p] are indefinite. Opposition at 7-8. I note that Apple’s arguments focus on what a POSITA supposedly would not have understood. *Id.* at 8 (“not able to discern,” “unable to

discern”). However, Apple’s argument is not supported by any expert testimony from Dr. Kenny, or any evidence at all. *Id.* at 7-8 (citing no evidence). And contrary to Apple’s argument, the intrinsic evidence from the ’507 Patent provides a POSITA with reasonable certainty as to the scope of the claimed limitations.

45. Apple argues that “including the sensor and processing board together” is indefinite. *Id.* at 7. But it is my opinion that the ’507 Patent provides a POSITA reasonable certainty as to the scope of the included-together limitation. It is my opinion that, in the context of the claim language of Substitute Claim 21, a POSITA would understand the included-together limitation describes one characteristic that makes the SpO2 measurement system “portable” while used in the claimed method of “informing a user of mobile measurement of oxygen saturation.” Specifically, the included-together limitation describes that the sensor and processing board are included together in the portable measurement system used at the measurement site. In Figures 1A-1C, the specification of the ’507 Patent provides an example of including the sensor and processing board together.

46. Apple also assumes that including the sensor and processing board “together” somehow contradicts the specification embodiment where the sensor and processing board are connected with a cable. Opposition at 7-8. Contrary to Apple’s assumption, however, a POSITA would understand that connecting the sensor and processing board together with a cable (e.g., as in the ’507 Patent embodiments of

Figures 1A-1C) is an example of them being included “together.” The included-together limitation covers but is not limited to those embodiments. Therefore, in my opinion, a POSITA would understand the scope of the included-together limitation with reasonable certainty in view of the intrinsic evidence, including the cable-connected embodiment identified by Apple.

47. Apple’s brief raises some rhetorical questions, but they fail to show indefiniteness. Opposition at 8. Apple questions whether the limitation covers a “kit,” but Apple ignores that Substitute Claim 21 is a method claim. Substitute Claim 21 is a method claim, not a kit claim, and does not recite how the components used in the method are stored or packaged when not in use in the claimed method. Instead, Substitute Claim 21 recites that the claimed components are included together in the portable measurement system that is used at the measurement site in performing the claimed method. As explained above, in my opinion, a POSITA would understand the scope of the included-together limitation with reasonable certainty in view of the intrinsic evidence, including the cable-connected embodiment identified by Apple.

48. Apple also questions whether the sensor and processing board must be contained in the same housing. But the included-together limitation covers both the sensor and processing board (1) contained in the same housing and (2) not contained in the same housing, as long as these components are included together in the

portable measurement system used at the measurement site. A POSITA would understand that one way the components can be included together as claimed is to connect the sensor and processing board with a cable, as shown and described in, for example, Figures 1A, 1B, 1C, 5A, 5B, and 5C of the '507 Patent.

49. Apple further argues that the “sensor and processing board together, wirelessly connectable to the smartphone” claim language does not specify whether just one of or both the sensor and processing board are wirelessly connectable to the smartphone. Opposition at 8. However, Apple ignores the claim language, which expressly recites that the connected “sensor and processing board *together*” are “wirelessly connectable to the smartphone.” The specification is consistent with that claim language because the specification describes connection port 150 including a wireless interface between the smartphone and the connected sensor and processing board together. Exhibit 2045 at [0049], FIG. 1C. Therefore, again, it is my opinion that a POSITA would understand the scope of the included-together limitation with reasonable certainty in view of the intrinsic evidence.

B. Limitation [22c] Is Not Indefinite

50. With regard to limitation [22c], I note that Apple’s arguments focus on what a POSITA supposedly would not have understood. Opposition at 8-9. (“impossible for a POSITA to determine”). However, Apple’s argument is once again not supported by any expert testimony from Dr. Kenny, or any evidence at all.

Id. (citing no evidence). And contrary to Apple’s argument, the intrinsic evidence from the ’507 Patent provides a POSITA with reasonable certainty as to the scope of the claimed limitations.

51. Apple incorrectly argues that the specification lacks “objective boundaries” between limitation [22c]’s “*advanced* signal processing algorithm” and other signal processing. Opposition at 8–9. However, paragraph [0032] identifies two forms of “advanced signal processing...including parallel engines and adaptive filters.” Exhibit 2045 at [0032]. That paragraph explains that the advanced signal processing separates physiological signals from noise “to allow accurate monitoring of arterial oxygen saturation and pulse rate even during the most challenging conditions.” *Id.* Therefore, in my opinion, a POSITA could ascertain with reasonable certainty whether a signal processing algorithm is advanced based on its use of parallel engines and/or adaptive filters to reduce noise and improve measurement accuracy.

X. APPLE FAILS TO SHOW OBVIOUSNESS FOR ANY SUBSTITUTE CLAIM

A. Apple Fails To Show Poeze Discloses The “One Or More Analog Signals Responsive To Light” Limitations of [21a] and [21c] (Applies to All Substitute Claims)

52. Limitation [21a] requires “outputting...one or more analog signals responsive to light from a light source attenuated by tissue of the user at a measurement site, said one or more analog signals responsive to an oxygen

saturation of said tissue.” Limitation [21c] requires that these same signals are received by the processing board through a wired connection.

53. In my opinion, a POSITA would have understood that the plain and ordinary meaning of “one or more analog signals responsive to light” output by the optical sensor refers to ***data that is actually acquired*** with the optical sensor. This understanding is supported by the specification of the ’507 Patent. *Id.* For instance, the specification explains that “the sensor has light emitting diodes (LEDs) that transmit [light] into a tissue site and a detector.” Exhibit 1001, 1:28-34. The specification also explains that the “sensor 110 provides data in the form of an output signal indicative of ... light” measured from “body tissues...” Exhibit 1001 at 4:46-51. That output signal data from the sensor is indicative of measured light because it is light intensity data acquired with the sensor’s detector. Exhibit 1001 at 1:28-34; 4:46-51. The detector “responds to the intensity” of light by outputting data (an analog electrical signal) corresponding to the intensity of the light that it measures. Exhibit 1001 at 1:28-34; 4:46-51. That “sensor data is transmitted from sensor 110 along the first cable 120 to the processing module 130, which can apply noise filtering and signal processing techniques described below....” Exhibit 1001 at 4:67-5:4. Therefore, it is my opinion that a POSITA would have understood that the plain meaning of “one or more analog signals responsive to light” output by the optical sensor and received by the processing board refers to data actually acquired with the

optical sensor. On the other hand, the specification never teaches that the optical sensor outputs data that it did not actually acquire. *Id.*

54. For limitations [21a] and [21c], Apple argues that Poeze’s sensor 116 outputs one or more analog signals that are received by the monitor 118. Opposition at 14-15, 17. But this is not sufficient to show that Poeze satisfies these limitations. Poeze explains that its detectors 506 “output a detector signal 524 responsive to light.” Exhibit 1110 at [0118], [0120], FIG. 8. However, Poeze’s detector signals 524 are manipulated by the front-end interface 508 before reaching the signal processor 510 in Poeze’s monitor 118. *Id.*, [0120], FIG. 8. Apple has therefore not shown that these same detector signals 524 (the data actually acquired with Poeze’s optical sensor) are output by Poeze’s sensor 116 and received by Poeze’s monitor 118. Accordingly, it is my opinion that Apple fails to show Poeze satisfies the plain meaning of the “one or more analog signals responsive to light” required by these limitations.

B. Apple Fails To Show Poeze Discloses The “Analog” Limitations of [21a] and [21c] (Applies to All Substitute Claims)

55. Limitation [21a] requires “outputting, from an optical sensor...one or more analog signals responsive to light.” Limitation [21c] requires “via a processing board...: receiving through a wired connection said one or more analog signals from the optical sensor.” Apple argues that Poeze discloses both limitations. Opposition

at 14-16, 37-40. But in my opinion, Apple fails to show Poeze discloses either limitation.

56. Poeze describes many embodiments. Poeze discloses one embodiment where the front-end interface 508 is in the sensor 116:

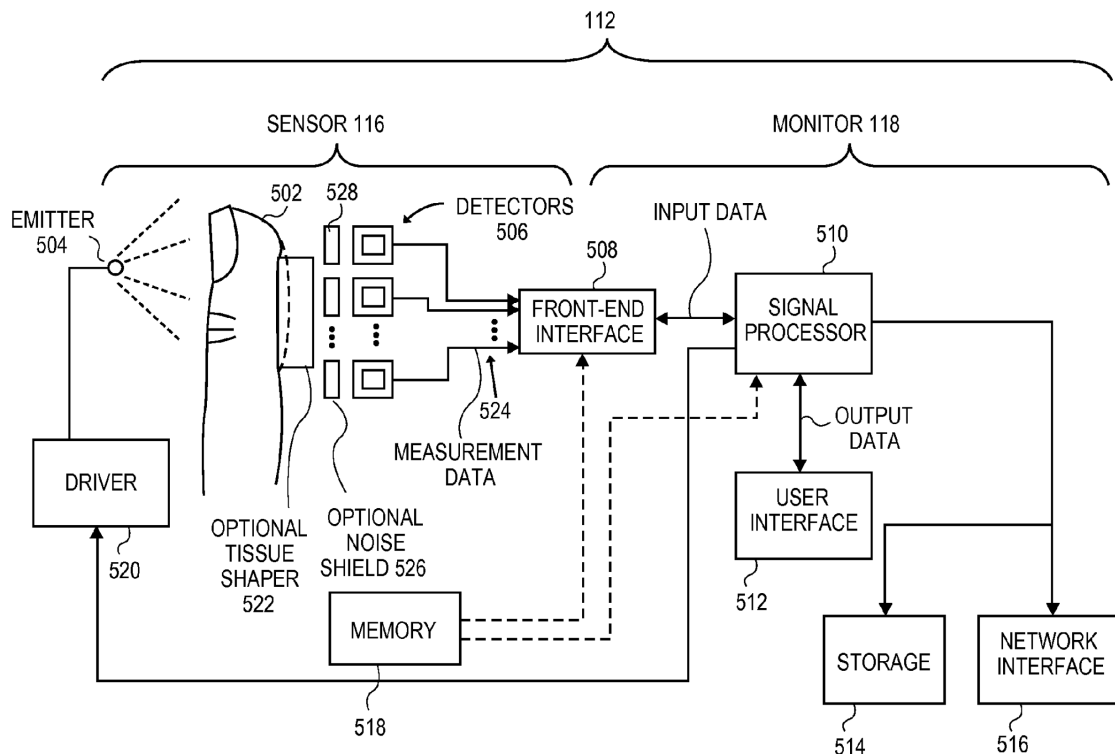


FIG. 8

EX1110 at FIG. 8, [0106] (“In the depicted embodiment shown in FIG. 8...the sensor 116 includes...a front-end interface 508.”).

57. Poeze also teaches second and third embodiments where the front-end interface 508 is in the monitor 118 or in the connecting cabling, respectively. *Id.* at [0120]; Opposition at 15 (Apple arguing the front-end interface 508 “can have its

components assembled in the sensor 116, in the monitor 118, or in connecting cabling”).

58. Limitation [21a]: Apple relies on Poeze’s embodiments where the “*front-end interface [508] adapts a signal 524* received from one or more of the detectors 506 *into a form that can be processed* by the monitor 118.” Opposition at 15 (quoting Exhibit 1110 at [0120]); Exhibit 1110 at [0120] (describing embodiment of front-end interface 508 that adapts detector signal 524 “into a form that can be processed” by the “signal processor 510 in the monitor 118”). Dr. Kenny and I agree that the signal 524 from the detectors 506 of Poeze’s sensor 116 “is an analog signal.” Exhibit 1109 ¶56. However, that analog signal must be converted (“adapt[ed]”) into a digital signal (another “form”) before it can be processed by the signal processor 510 in monitor 118. Exhibit 1110 at [0120]. Therefore, Poeze’s front-end interface 508 includes at least one analog-to-digital converter (“ADC”) to output “digital information for processing by the signal processor 510 of the monitor 118.” Exhibit 1110 at [0123], [0125] (“a switched-capacitor-based front-end interface 508 can be useful because it can provide a digital signal to the signal processor 510 in the monitor 118”). Accordingly, in my opinion, a POSITA would have understood that in the Poeze embodiments relied on by Apple, the detected analog signal is converted to a digital signal *before* it reaches the monitor 118.

59. Apple’s argument for with respect to limitation [21b] confirms that Apple relies on the Poeze embodiments where the detected analog signal is converted into a digital signal ***before*** it is received by the monitor 118. Apple argues that Poeze’s monitor 118 “receives signal data from the sensor 116 and processes the signal data.” Opposition at 15. The monitor 118 is able to “receive” and “process” the signal without requiring the monitor to perform any analog-to-digital conversion because, in the Poeze embodiments Apple relies on, ***the monitor receives signals that have already been converted*** by the front-end interface’s ADC into the ***digital “form that can be processed by the monitor 118.”*** Exhibit 1110 at [0120].

60. Apple argues that Poeze’s “sensor 116 alone, or a combination of the sensor 116 and front-end interface 508” are the “claimed optical sensor” that outputs one or more analog signals. Opposition at 15. However, Poeze’s sensor 116 already “includes...a front-end interface 508.” Exhibit 1110 at [0106] (“In the depicted embodiment shown in FIG. 8, ***the sensor 116 includes*** an emitter 504, a tissue shaper 522, a set of detectors 506, and ***a front-end interface 508.***”). Further, Apple does not propose removing the front-end interface 508 from Poeze’s sensor 116. Thus, I cannot discern a different between the “sensor 116 alone” and “a combination of the sensor 116 and front-end interface 508” because Poeze’s front-end interface 508 is included either way. In either case, Apple relies on Poeze’s embodiments where the front-end interface 508 converts the detector signal to a digital signal before it

reaches the monitor 118, as I have explained. Therefore, in my opinion, the sensor 116 alone or combined with the front-end interface 508 outputs one or more digital signals, not one or more analog signals as limitation [21a] requires.

61. Apple contends that Poeze’s ADC “receives the output of the front-end interface.” Opposition at 15. However, that argument is incorrect in the embodiments that Apple relies on. As explained above, Apple relies on Poeze’s embodiments where the front-end interface’s ADC converts the detector signal 524 to a digital signal *before* it reaches the monitor 118. Therefore, rather than “receive the output of the front-end interface,” the ADC provides the output of the front-end interface 508, namely, the digital signal that is subsequently received and processed by the monitor 118. Exhibit 1110 at [0120], [0123].

62. Limitation [21c]: For limitation [21c], Apple argues the monitor 118 “receives signal data from the sensor 116” via a wired connection. Opposition at 17. However, as explained above, in the Poeze embodiments Apple relies on, the analog signal from the sensor 116 is converted to a digital signal by the ADC of the front-end interface 508 before the signal reaches the monitor 118. Thus, the signals Poeze’s monitor receives via wired connection are digital signals, not “analog signals from the optical sensor” as limitation [21c] requires.

63. Additionally, I note that Apple does not identify its obviousness grounds with particularity. Apple relies on numerous different embodiments of

Poeze. *See, e.g.*, Opposition at 14-15, 17 (relying on Poeze’s embodiments in Figures 1B, 2B, 7, 8 and iterations thereof). Apple vaguely then argues that “*in various embodiments*, [Poeze’s] sensor 116 alone, or a combination of the sensor 116 and front-end interface 508 provides the claimed optical sensor.” *Id.* at 15. As such, Apple does not identify the particular Poeze “embodiments” or “combination” that it relies on as allegedly disclosing the claimed optical sensor.

64. Accordingly, for the foregoing reasons, it is my opinion that Apple fails to show Poeze discloses limitations [21a] and [21c].

C. Apple Fails To Show Its Combination Renders Obvious Limitation [21b] (Applies to All Substitute Claims)

65. Apple argues it would have been obvious to mount “the internal components of [Poeze’s] monitor 118 (including the ADC and signal processor 510)” on a board such as a PCB. Opposition at 16. However, the ADC is not an internal component of Poeze’s monitor 118. Rather, as discussed above, Apple relies on Poeze’s embodiments where the front-end interface’s ADC converts the detector signal 524 into a digital signal before the signal reaches the monitor 118. Because the analog-to-digital conversion occurs before the signal reaches the monitor 118 in the embodiments Apple relies on, it is my opinion that in those embodiments the front-end interface’s ADC is not an “internal component” of Poeze’s monitor 118.

66. Even if the ADC were an internal component of Poeze’s monitor 118, Apple fails to show a motivation to modify Poeze to put the ADC and the signal processor 510 “on a board” in the monitor 118. Apple argues this modification was “well-known in the art” and allows electrical communication “in a reliable, well-known manner.” Opposition at 16. But even if true, being well known does not explain why a POSITA would have been motivated to do what Apple proposes, namely, place the ADC and the signal processor 510 on a circuit board in the monitor 118. Apple also argues that a benefit of using a PCB (printed circuit board) is reliable electrical communication “while securing the components within the assembly.” *Id.* at 16. However, the claims do not generically recite mounting components on a PCB or other board. The claims require arranging the components such that “analog signals from the optical sensor” are received by the processing board via a wired connection. Therefore, in my opinion, Apple merely stating generic advantages of mounting components on a PCB fails to show that a POSITA would have been motivated to make the specific modification of Poeze that Apple proposes.

67. Apple also argues that mounting Poeze’s ADC and signal processor on the same board would “provide the benefits discussed in §III.A.4” of the Opposition. Opposition at 16. But section III.A.4 of the Opposition is not about mounting components on a board. Instead, that section starts by identifying purported

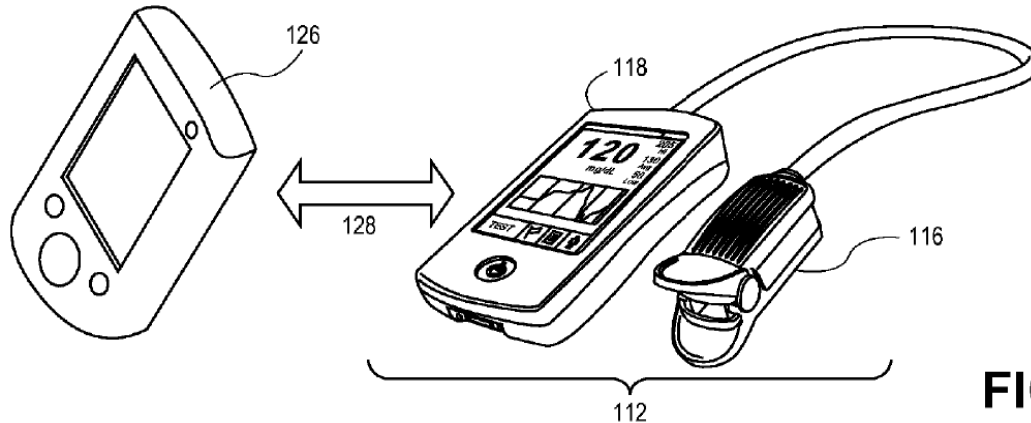
advantages of modifying Poeze's mobile phone to display graphs of SpO₂ and heart rate measurement values. Opposition at 11-12. The section then addresses purported advantages of using Baba's heart icon. *Id.* at 12. The section then addresses Pakula. *Id.* at 13-14. But even the Pakula discussion pertains to a housing, not putting components on a circuit board. *Id.* Accordingly, no benefits discussed in Opposition section III.A.4 are relevant to the proposed combination. Lastly, Apple argues that mounting an SpO₂ processor and ADC on the same PCB was "well-known" and "corroborated" in the art. Opposition at 16. However, none of Apple's references mention putting an ADC on the same board as the processor. Exhibit 1113 at [0066], [0069]-[0070], [0085]-[0086]; Exhibit 1092 at 11:6-20; Exhibit 1118 at [81].

D. Apple Has Not Demonstrated That It Would Have Been Obvious to Combine Poeze, Kianl, and Baba to Yield the Limitations [21f] and [21g] (Applies to All Substitute Claims)

68. Limitation [21b] recites a "smartphone mobile computing device" separate from the "processing board of the SpO₂ measurement system." Thereafter, limitation [21e] recites the data communication between the processing board and the smartphone is wireless. Limitations [21f] and [21g] then recite "via an application configured to execute commands on the smartphone mobile computing device: generating a graphical user interface having a plurality of display portions on the touch-sensitive smartphone display." Limitations [21h] through [21i] recite

several types of (1) data (including SpO2 measurement values, a graph of historical SpO2 data, and a graph of historical heart rate data) and (2) user inputs that are displayed in the display portions of the touchscreen. Therefore, in the claim, the graphical user interface displays a complex set of physiological measurement data, historical measurement data, and user inputs at multiple display portions on a touchscreen smartphone display, and not the physical component housing the processing board.

69. Apple relies on Poeze as having a monitor 118 that outputs physiological data to a mobile phone 126. Opposition at 18 (citing Exhibit 1110 at [0031], [0034]-[0035], FIG. 2B).

**FIG. 2B**

70. Apple also points to Poeze as disclosing the “monitor ‘receiv[es] signal data from the sensor 116 [and] process[es] the signal data to determine one or more output measurement values.” *Id.* at 17 (citing Exhibit 1110 at [0031], [0029]).

71. Apple does not argue that the touchscreen of Poeze’s mobile phone 126 displays the claimed set of data and user inputs on the claimed plurality of display

portions of a touchscreen. Instead, Apple argues Kianl and Baba disclose “examples of input icons and health data trend displays.” Opposition at 12. Apple argues it would have been obvious to modify Poeze’s touchscreen to implement Kianl’s input icons and health data trend displays and Baba’s heart icon. *Id.* However, in my opinion, a POSITA would not have attempted to modify Poeze’s touchscreen to implement Kianl’s user interface and Baba’s heart icon for at least the following reasons: (1) a POSITA would have appreciated the benefits of displaying the complex data and inputs generated by Kianl and Baba ***on the same device that generates the complex data and inputs*** as Kianl teaches, (2) displaying the complex data and inputs on a smartphone touchscreen would be redundant because that information was already displayed on Kianl’s handheld device, and (3) a POSITA would not have reasonably expected success in making the modifications Apple proposes. Also, unlike Poeze’s smartphone, Kianl describe a “full-featured handheld pulse oximeter” is an entirely different type of device than a smartphone with an entirely different user interface designed to display the complex data and inputs generated by Kianl’s “full-featured” device. Exhibit 1006, 3:40-45. It is also apparent that Kianl describes larger, more numerous, and more complex inputs than could reasonably be displayed by the touchscreen of Poeze’s smartphone. *Id.*, FIGS. 1A, 1B, 1C, 2A, 2B. Accordingly, in my opinion, Apple has provided no reason why a POSITA would have modified Poeze to redundantly display Kianl and Baba’s

complex data and inputs on both the monitor that generates those data and inputs and Poeze's smartphone touchscreen.

72. Additionally, in my opinion, Kianl's user interface, either with or without Baba's heart icon, could not have been readily implemented on a smartphone's touchscreen. In stark comparison to Poeze's relatively small smartphone, Kianl describes a larger, bedside device for real-time monitoring and displaying complex physiological parameters of patients in the hospital:

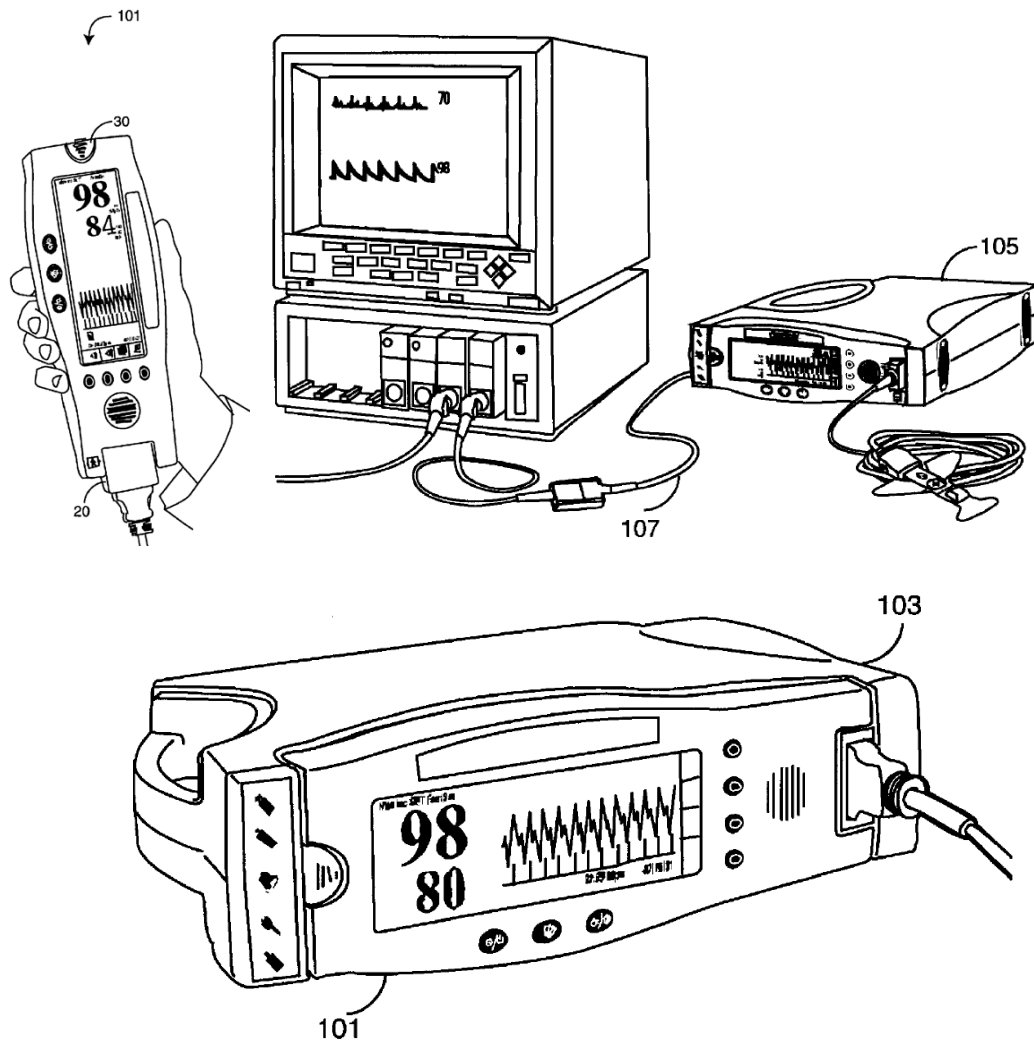


Exhibit 1006, FIGS. 1A-C. As shown above, each embodiment has a large screen displaying multiple real-time physiological parameters, including oxygen saturation and heart rate, as well as a chart showing historical data for those parameters. *Id.* Kianl's console (e.g., 105) and handheld (e.g., 101) are much larger than a smartphone. For example, as shown in Figure 1B of Kianl, the handheld device 101 is considerably larger than the user's hand. Exhibit 1006, FIG. 1B.

73. Consistent with Kianl's figures, in my opinion, a POSITA would have understood that Kianl's console and handheld needed to be so large in order to contain screens that were large enough to display all of the complex physiological measurements and historical data of Kianl's full-featured hospital-type device.

74. Apple also ignores that Kianl does not disclose a touchscreen user interface. Kianl requires the use of physical buttons, keys, or knobs to operate the handheld or console and does not disclose a touchscreen user interface. Kianl teaches that "[u]ser input is handled through control keys 220-260 (FIG. 2A) on a front panel" and these "[u]ser input and displays are controlled by the handheld 101." Exhibit 1006, 3:49-52. Kianl's handheld includes physical buttons and knobs, such as "fixed function keys 220-240, programmable function keys ("soft keys") 260, [and] associated soft key icons 270." *Id.*, 4:22-24. These "soft keys" are physical keys with programmable functions labeled by icons displayed on the screen next to

the key such that “[p]ressing a soft key 260 next to an icon 270 selects the option.”

Id., 4:31-32.

75. In my opinion, because Kianl lacks a touchscreen user interface and requires physical buttons and knobs, a POSITA would not have been able to implement Kianl’s interface on Poeze’s smartphone. For example, Kianl’s use of physical buttons and knobs is fundamentally different from and incompatible with Poeze’s touchscreen interface. Moreover, in my opinion, a POSITA would not have expected success in either (1) modifying Poeze’s touchscreen interface or (2) adapting Kianl’s trend charts and other display elements to allow Poeze’s interface to display such charts and other elements. In my opinion, a POSITA would not have reasonably expected success in displaying Kianl’s (or Baba’s) complex set of multiple physiological parameter measurements, historical charts, and the many user inputs of Kianl in the very limited space of Poeze’s smartphone touchscreen. In my opinion, because of the need to use significant portions of Poeze’s smartphone touchscreen for controls (rather than using physical buttons and knobs for those controls like Kianl), a POSITA would not have reasonably expected both Kianl’s controls *and* detailed information to fit on Poeze’s touchscreen, much less fit on Poeze’s touchscreen in a sufficiently viewable or useable manner. Similarly, in my opinion, a POSITA would have recognized that reserving sufficient screen space to

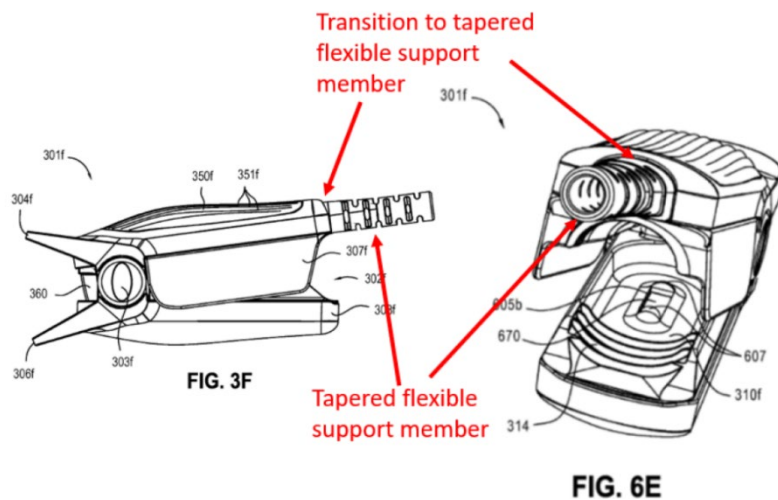
display Kianl's charts on Poeze's touchscreen would have required omitting important controls from the touchscreen, thereby rendering the device inoperable.

76. Accordingly, in my opinion, Apple fails to show obviousness of Substitute Claim 21 at least because Apple fails to show a reasonable expectation of success with respect to limitations [21f] and [21g].

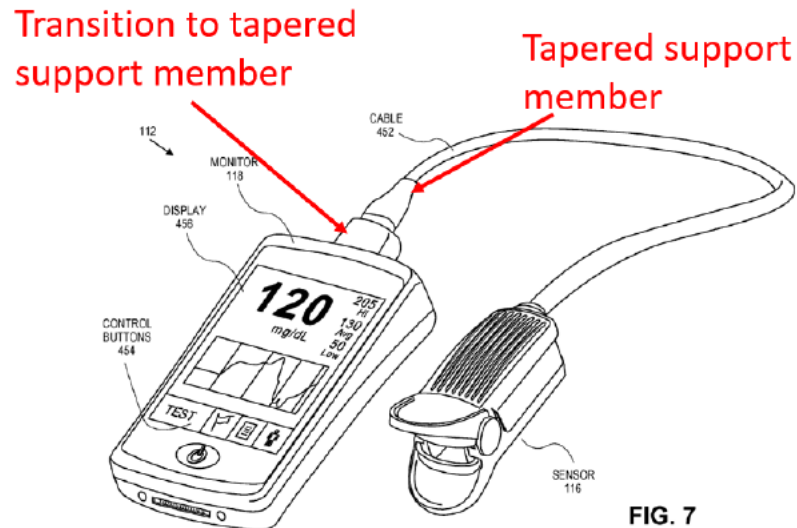
**E. Limitation [23b] Is Not Taught By Poeze
(Applies to Substitute Claim 23)**

77. Turning to the dependent substitute claims, limitation [23b] recites “the rounded rectangular enclosure comprising, on a first side, a first transition from the enclosure to a tapered flexible support member, and on a second side opposite the first side, a second transition from the enclosure to a tapered flexible support member.”

78. Apple relies on material that is incorporated by reference into Poeze as allegedly teaching this limitation (Poeze-040):



Opposition at 26 (citing Exhibit 1111). However, that Poeze-040 disclosure (including the figures shown above) concerns a finger clip sensor, which is not a “rounded rectangular enclosure” of the protective assembly for the processing board, as recited in limitation [21n]. Apple ignores this key difference, instead arguing that a “flexible support member” would have been “beneficial to include” on the modified monitor of Poeze. *Id.* at 27. But Apple fails to address how this might affect the claimed transition to such a member and fails explain how such a modification would benefit Poeze’s monitor. Apple merely points to a single transition to a support member protruding from the top of Poeze’s unmodified monitor:

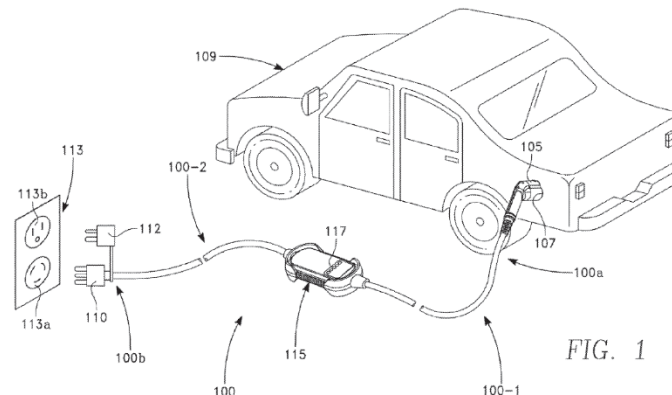


APPLE-1110, FIG. 7

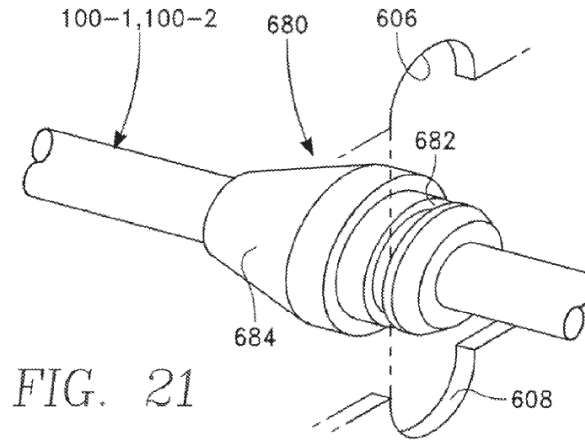
Id. But the monitor in the above figure is not rounded, and the cord protrudes from a flat face of the monitor. Therefore, Apple’s fails to show how, if this monitor were

transformed to have a “rounded rectangular enclosure” as claimed, the further modification would include the claimed transition.

79. Apple cites Soden, which concerns a large electric vehicle charger with large cables for use on the floor of a garage:



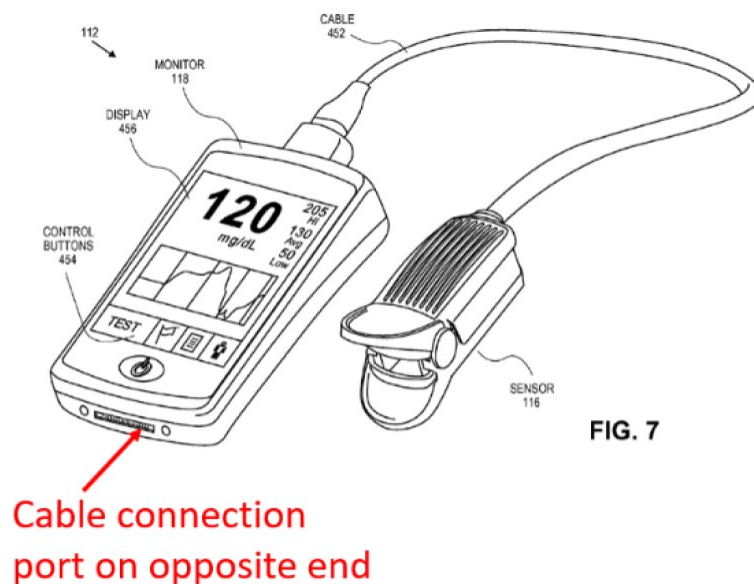
Exhibit, FIG. 1. In my opinion, Soden should be disregarded because it comes from an entirely different field than Poeze. Also, Soden should be disregarded because Apple makes no effort to explain which of Soden’s teachings allegedly apply, or how or why a POSITA allegedly would have used Soden to further modify Poeze’s selectively transformed SpO2 monitor. Instead, Apple cites Soden for phrases explaining bend relief such as “provide[] relief from lateral bending of the cable” (*Id.* at [89]), which refers to this figure:



But Apple’s reliance on Soden fails to show obviousness because Soden concerns an entirely different device in an unrelated field, and because the mere existence of benefits of a generic flexible support member do not explain how or why a rounded protective enclosure would have the claimed transition to such a member.

80. Apple also cites Martin (Opposition at 28), but Martin is no better than Soden. Martin explains that military grade fiber cables and optical cables are “sensitive to sharp bends” and “breakages” at the “connector-to-cable” junction (EX1123 at [0003]), and how a bend/stress relief sleeve can address these problems (*id.* at [0032]). However, Apple identifies nothing in Martin that describes how or why a rounded protective enclosure would have the claimed transition to Martin’s bend/stress relief sleeve. Apple also cites figures 1-7 of Lee (Opposition at 28, citing Exhibit 1121), but again never explains how or why a rounded protective enclosure would have the claimed transition.

81. Lastly, Apple argues that a second transition would have been obvious “to provide the same bend relief benefits” as the first transition. Opposition at 28. But as with Apple’s arguments for the first transition, the bend relief benefits alleged by Apple do not explain how or why a rounded protective enclosure would have the claimed transition. Apple does not explain its proposed modifications to Poeze’s transformed monitor, or address that Poeze’s connection cable port is included on the unmodified end of the monitor:



Opposition at 28. Apple argues that Figure 7 of Poeze indicates possibly useful peripherals for the unmodified port in Poeze’s monitor, including medical sensors, accelerometer, backup, power. Opposition at 29. However, in my opinion, this discussion of devices that could be connected to Poeze’s unmodified monitor port does not explain how or why a rounded protective enclosure would have the claimed transition to a second bend relief portion.

XI. CONCLUSION

82. For the reasons explained herein, it is my opinion that Apple fails to show that any of the substitute claims in the Revised Contingent Motion to Amend for the '507 Patent lack written description support, are indefinite, or are rendered obvious by the identified references.