

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MASIMO CORPORATION,

Petitioner,

v.

APPLE INC.,

Patent Owner

Case IPR2023-00745
U.S. Patent 10,076,257

PATENT OWNER'S REVISED CONTINGENT MOTION TO AMEND

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LIST OF EXHIBITS

APPLE-2001	U.S. Patent Application Publication No. 2014/0171776 (“Lin”)
APPLE-2002	U.S. Provisional Application No. 61/111,498
APPLE-2003	Declaration of Dr. Thomas W. Kenny
APPLE-2004	Joint Claim Construction Brief for Apple Asserted Patents from <i>Apple Inc. v. Masimo Corporation et al.</i> , Case No. 1-22-cv-01378 (D. Del. Oct. 20, 2022)
APPLE-2005	Definition of “embedded” from Wiley Electrical and Electronics Engineering Dictionary, IEEE Press, Wiley-Interscience (2004)
APPLE-2006	Definition of “embed” from Merriam-Webster’s Collegiate Dictionary, Eleventh Edition, Merriam-Webster, Inc. (2005)
APPLE-2007	Definition of “embed” from Webster’s College Dictionary, Random House (2005)
APPLE-2008	Transcript of January 12, 2024 deposition of Alan L. Oslan
APPLE-2009	U.S. Patent App. Ser. No. 14/136,658
APPLE-2010	U.S. Patent App. Ser. No. 12/358,905

I. Introduction

Patent Owner, Apple Inc., respectfully presents this Revised Contingent Motion to Amend (“RMTA” or “this Motion”)¹ under 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121 to conditionally amend challenged claims 3 and 11-14 (hereinafter “RMTA claims”) of the ’257 patent. In the event the Board finds at least one challenged RMTA claim unpatentable, Apple respectfully requests that the Board grant this Motion with respect to the corresponding proposed substitute claim(s). Accordingly, this Revised Motion to Amend is contingent upon a determination of unpatentability of the challenged RMTA claim(s).

In this RMTA, Apple has changed the set of claims that it proposes to conditionally amend from the original set of MTA claims (claims 16-22) to this new set of RMTA claims (3 and 11-14). This shift from the original set of MTA claims to this new set of RMTA claims has been made in light of the Preliminary Guidance such that the new proposed substitute claims 23-27 do not change dependencies from the challenged RMTA claims and so that the new substitute claims 23-27 retain nearly all features of the corresponding original claim language of RMTA claims 3

¹ Apple’s RMTA is responsive to the Preliminary Guidance (Paper 23) and Petitioner’s MTA Opposition (Paper 18) (“MTA Opp.”).

and 11-14. Specifically, all of the new substitute claims 23-27 retain the same dependencies as the respective RMTA claims that they conditionally replace. Furthermore, new substitute claims 23-25 and 27 retain all of the original claim language from the respective RMTA claims that they conditionally replace while substitute claim 26 changes only one word (“second portion” to “first portion”) with respect to the RMTA claim 13 that it conditionally replaces.

Furthermore, in an effort to streamline the proceeding and avoid the introduction of new issues, Apple has drafted the new substitute claims 23-27 to include features drawn from the original substitute claims 22-28 in Apple’s original MTA. The following table shows the correspondence between each new substitute claim and the respective original proposed substitute claim that included the same or highly similar recitations:

New Proposed Substitute Claim	Original Proposed Substitute Claim Containing Corresponding Features
23	27
24	25
25	22
26	23
27	26

Additionally, in a further effort to streamline the proceeding, Apple has reduced the total number of proposed substitute claims from seven to five.

As shown below, this Motion and the substitute claims meet all requirements of 35 U.S.C. § 316(d) and 37 C.F.R § 42.121. *See also Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, -01130, Paper 15 at 4 (PTAB Feb. 25, 2019) (precedential).

II. Statement of Relief Requested

To the extent the Board finds any of original claims 3 and/or 11-14 unpatentable, Apple respectfully requests that the Board grant this Revised Motion to Amend by entering at least the proposed claim(s) presented herein in substitution for the corresponding claim(s) found unpatentable, or in the alternative, that the Board grant this Revised Motion to Amend by entering each of the reasonable number of amended claims that are proposed herein.

III. The Substitute Claims Satisfy 37 C.F.R. § 42.121(a)

A. The substitute claims are non-broadening.

As shown in the attached claims appendix, the proposed substitute claims 23-25 and 27 retain all recitations of the corresponding original RMTA claims and add non-broadening limitations. Proposed substitute claim 26 changes only one word (“second portion” to “first portion”) with respect to the RMTA claim 13 that it conditionally replaces. Such amendments to dependent claims do not broaden the scope of the claims of the patent where there has been no change to the original

independent claim from which they depend. *See Network-1 Techs., Inc. v. Hewlett-Packard Co.*, 981 F.3d 1015, 1029, (Fed. Cir. 2020). Here, due to the fact that independent claim 1 is not amended by this RMTA and each of the proposed substitute claims depends from claim 1, the “proposed substitute claims...would [not] encompass any device or method that would not have infringed the original patent claims.” *Am. Nat’l Mfg. Inc. v. Sleep No. Corp.*, 52 F.4th 1371, 1374 (Fed. Cir. 2022); *see also Predicate Logic, Inc. v. Distributive Software, Inc.*, 544 F.3d 1298, 1303 (Fed. Cir. 2008); *Apple Inc. v. Qualcomm Inc.*, IPR2018-01277, Paper 46 at 45 (PTAB Jan. 17, 2020) (“In this case, it was reasonable to remove ‘generating’ from the dependent claim...”).

The following table specifies how each proposed substitute claim does not enlarge the scope of the claims of the patent.

Original claim #	Substitute Claim #	Amendments (none of the substitute claims have broadening amendments)
3	23	<ul style="list-style-type: none">• Retains dependency from claim 1• by an electrically isolating component inserted between the first and second pads• wherein the exterior surface of the enclosure comprises an exterior surface of the second

		<p>portion, wherein the second pad is positioned underneath the exterior surface of the second portion of the enclosure;</p> <ul style="list-style-type: none">• wherein the first and second pads are adjacent pads.
11	24	<ul style="list-style-type: none">• Retains dependency from claim 1• wherein the first pad is embedded in an inner surface of an electrically conductive metal bezel that forms a portion of an exterior surface of the electronic device; and• wherein the second pad is exposed on the exterior surface of the electronic device for direct contact from a user.
12	25	<ul style="list-style-type: none">• Retains dependency from claim 1• further comprising a touch screen display,• wherein the bezel extends around the touch screen display; and• wherein the first pad is embedded in an inner surface of the bezel.

13	26	<ul style="list-style-type: none">• Retains dependency from claim 1• the electronic device further comprising: a third lead comprising a third pad that is embedded in the second portion of the enclosure, wherein the third pad is configured to detect a third electrical signal of the user's cardiac signal via the user's skin's contact with the third pad; and• wherein the second pad is configured to detect the second electrical signal of the user's cardiac signal via the user's skin's contact with the second pad;• wherein the first pad detects signals through a first hand, and the second and third pads detect signals through a second hand.
14	27	<ul style="list-style-type: none">• Retains dependency from claim 1• wherein the processor is further configured to extract one or more characteristics of the detected cardiac signal and compare the extracted one or more characteristics with one or more

		<p>characteristics previously stored in memory that were associated with an authorized user; and</p> <ul style="list-style-type: none">• wherein if the extracted one or more characteristics match those of an authorized user, the electronic device authenticates the user.
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B. The substitute claims are responsive to a ground of unpatentability involved in the trial.

The proposed substitute claims are also responsive to at least one ground of unpatentability in the trial. *See* 37 C.F.R. § 42.121(a)(2)(i). Petitioner has alleged that claims 1-4 and 8-22 of the '257 Patent, including independent claims 1 and 15 (device claims) are invalid under the following grounds.

GROUND LISTING

GROUND 1	Claims 1-4, 8, 10, 11 and 14 are unpatentable as anticipated by Mills
GROUND 2	Claims 1-4 and 8-22 are unpatentable as obvious over Markel in view of Mills

IPR2023-00745 Petition at Ground Listing, Page 1.

This Revised Motion to Amend conditionally proposes amendments to claims 3 and 11-14 that are responsive to Petitioner's grounds in the instant IPR. For example, in response to both Grounds 1 and 2, Apple's proposed substitute claims clarify that:

(1) the claimed device includes an electrically isolating component inserted between the first and second pads, wherein the exterior surface of the enclosure comprises an exterior surface of the second portion, wherein the second pad is positioned underneath the exterior surface of the second portion of the enclosure, and wherein the first and second pads are adjacent pads.

(2) the first pad of the claimed device is embedded in an inner surface of an electrically conductive metal bezel that forms a portion of an exterior surface of the electronic device, and the second pad is exposed on the exterior surface of the electronic device for direct contact from a user.

(3) the claimed device includes a touch screen display in which the bezel of the device extends around the touch screen display and the first pad is embedded in an inner surface of the bezel;

(4) the claimed device further comprises a third lead comprising a third pad that is embedded in the second portion of the enclosure, wherein the third pad is configured to detect a third electrical signal of the user's cardiac signal via the user's skin's contact with the third pad;

(5) the second pad of the claimed device is configured to detect a second electrical signal of the user's cardiac signal via the user's skin's contact with

the second pad, wherein the first pad detects signals through a first hand, and the second and third pads detect signals through a second hand.

(6) the claimed device includes a processor that is further configured to extract one or more characteristics of the detected cardiac signal and compare the extracted one or more characteristics with one or more characteristics previously stored in memory that were associated with an authorized user; wherein if the extracted one or more characteristics match those of an authorized user, the electronic device authenticates the user.

For example, while the issued '257 Patent claims recite an “electronic device,” the substitute claims clarify that device includes specific elements (e.g., touch screen display, bezel, etc.) and particular arrangement of those elements (e.g., bezel extends around the touch screen), or specific functionality (e.g., the electronic device authenticates the user). None of the asserted references, individually or in combination, disclose or render obvious an electronic device that implements the recited claim features of the proposed substitute claims. The additional clarifying features noted above recite additional distinguishing features, thereby addressing the

grounds advanced in the IPR2023-00745 petition, such that the asserted prior art references fail to render obvious the substitute claims².

Moreover, it is not necessary “that every word added to or remove from a claim in a motion to amend must be solely for the purpose of overcoming an instituted ground.” *Veeam Software Corp. v. Veritas Techs., LLC*, IPR2014-00090, Paper 48 at 28 (Jul. 17, 2017). Rather, the question is whether “the proposed claim as a whole is ‘responsive to a ground of unpatentability involved in the trial.’” *Id.* at 29. Beyond that threshold, Patent Owner may add other amendments that “serve[] the public interest by ensuring issuance of valid and clear patents,” including “additional limitations to address potential § 101 or § 112 issues.” *Id.* To the extent the Board finds that any other proposed amendments in a given substitute claim are not directly responsive to a ground of unpatentability here, those amendments are appropriate in view of the legal principles above.

² Patent Owner does not concede that the current issued claims of the '257 Patent are rendered obvious by the asserted prior art. The proposed amendments further amplify distinctions between the asserted references and the '257 Patent.

C. The substitute claims are reasonable in number.

Apple has selected the challenged RMTA claims that are a subset of the challenged claims in the IPR petition for amendments, and for each challenged RMTA claim, Apple proposes only one substitute claim, fitting the “presumption . . . that only one substitute claim would be needed to replace each challenged claim.” 37 C.F.R. § 42.121(a)(3). Furthermore, each of the claims in the new set of proposed substitute claims 23-27 retains its original dependency and only one proposed substitute claim (claim 26) does not retain all original claim recitations of the respective RMTA claim that is conditionally replaces. Furthermore, in the case of substitute claim 26, only one word is changed from the original claim language (changing “second portion” to “first portion”). Such minor revisions to the claim language are in compliance with the requirements of 37 C.F.R. § 42.121(a)(3). *See Am. Nat’l Mfg. Inc.*, 52 F.4th at 1379. The changes made by Apple to the set of proposed substitute claims submitted with this RMTA with respect to the proposed substitute claims in the original MTA render moot the concerns raised in the

Preliminary Guidance with respect to changing of dependencies and removal of features from the original claims.³ Prelim. Guid., 4-6.

Thus, the number of substitute claims are reasonable in number.

IV. The Substitute Claims Satisfy 37 C.F.R. § 42.121(b)

A. The substitute claims are presented in a claim listing.

As required by 37 C.F.R. § 42.121(b), this motion is accompanied by an appendix that lists the proposed substitute claims and clearly shows the proposed amendments to the claims in light of the corresponding original claims.

B. The substitute claims are supported by the original and earlier filed disclosures for each claim.

Pursuant to 37 C.F.R. § 42.121(b)(1) and (b)(2), the table below demonstrates that each substitute claim is supported by each earlier-filed disclosure as to which the benefit of the filing date is sought.⁴ In particular, the '257 Patent issued from Application Ser. No. 14/136,658 (APPLE-2009), which was filed on December 20, 2013. The '257 Patent claims priority to U.S. Application Ser. No. 12/358,905, filed

³ Apple does not concede that the proposed substitute claims submitted with the original MTA do not comply with the requirements of 37 C.F.R. § 42.121(a)(3).

⁴ The support citations herein are not necessarily exhaustive or meant to limit the meaning of the corresponding limitations.

Jan. 23, 2009 (APPLE-2010) which in turn claims priority to U.S. Provisional Application Ser. No. 61/111,498, filed November 5, 2008 (APPLE-2002).

Claim	Written Description Support		
	APPLE-2009	APPLE-2010	APPLE-2002
23	Amended features: ¶¶[0009]-[0011], [0033], [0047], [0050], [0055]; FIGS. 3, 5	Amended features: ¶¶[0009]-[0011], [0033], [0047], [0050], [0055]; FIGS. 3, 5	Amended features: ¶¶[0008]-[0010], [0032], [0046], [0049], [0054], cl. 18; FIGS. 3, 5
24	Amended features: ¶¶[0009], [0016]- [0018], [0034], [0042], [0044]-[0050], [0055]; FIGS. 3, 4B, 5	Amended features: ¶¶[0009], [0016]- [0018], [0034], [0042], [0044]-[0050], [0055]; FIGS. 3, 4B, 5	Amended features: ¶¶[0008], [0015]- [0017], [0033], [0041], [0043]-[0049], [0054], cl. 18; FIGS. 3, 4B, 5
25	Amended features: ¶¶[0009], [0016]- [0018], [0024]-[0025], [0034], [0042],	Amended features: ¶¶[0009], [0016]- [0018], [0024]-[0025], [0034], [0042],	Amended features: ¶¶[0008], [0014]- [0017], [0023]-[0024], [0033], [0041],

	[0044]-[0050], [0055], Abstract; FIGS. 3, 4B, 5	[0044]-[0050], [0055], Abstract; FIGS. 3, 4B, 5	[0042]-[0054], [0058]; FIGS. 3, 4B, 5
26	Amended features: ¶¶[0009], [0033]- [0034], [0042]-[0044], [0046]-[0047], [0050], [0055], Abstract; FIGS. 3, 4B, 5	Amended features: ¶¶[0009], [0033]- [0034], [0042]-[0044], [0046]-[0047], [0050], [0055], Abstract; FIGS. 3, 4B, 5	Amended features: ¶¶[0008], [0032]- [0033], [0041]-[0043], [0045]-[0046], [0049], [0054], [0058]; FIGS. 3, 4B, 5
27	Amended features: ¶¶[0007], [0033], [0047]-[0048], [0051], Abstract, cls. 1, 16, 20; FIG. 4B	Amended features: ¶¶[0007], [0033], [0047]-[0048], [0051], Abstract, cls. 1, 16, 20; FIG. 4B	Amended features: ¶¶[0006], [0032], [0046]-[0047], [0050], [0058] (Abstract), cls. 1, 16, 20; FIG. 4B

V. Claim Construction

At this stage, Apple does not propose any specific claim constructions as it is not Apple's burden to demonstrate patentability of the proposed substitute claims over the prior art. While Apple believes the new proposed limitations, plainly

understood, establish patentability of the proposed substitute claims, Apple reserves the right to propose claim constructions as needed to respond to any allegations of unpatentability presented by Petitioner.

VI. Patentability Over the Prior Art

In light of the Federal Circuit’s *en banc* decision in *Aqua Products v. Matal*, 872 F.3d 1290, 1296, 1310 (Fed. Cir. 2017), Apple need not prove the patentability of the proposed substitute claims. And as the Patent Office has acknowledged before the Federal Circuit, and the Federal Circuit has held, Patent Owner adequately meets its duty of candor by simply confirming—as it does here—its belief that the proposed substitute claim is patentable over all known prior art, alone or combined. *Nike Inc. v. Adidas AG*, 812 F.3d 1326, 1350 (Fed. Cir. 2016) (overruled *en banc* on other grounds).

VII. Conclusion

Patent Owner respectfully requests the Board’s Preliminary Guidance as to this Motion, and further requests that, to the extent any original claim is deemed unpatentable, the Board grant the corresponding proposed substitute claim.

Respectfully submitted,

Date: May 13, 2024

/Patrick J. Bisenius/

Patrick J. Bisenius, Reg. No. 63,893

Fish & Richardson P.C.

60 South Sixth Street, Suite 3200

Minneapolis, MN 55402

T: 202-783-5070

F: 877-769-7945

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e)(4), the undersigned certifies that on May 13, 2024, a complete and entire copy of this Patent Owner's Revised Contingent Motion to Amend and its supporting exhibits were provided via email, to the Petitioner by serving the email correspondence addresses of record as follows:

Benjamin J. Everton (Reg. No. 60,659)
Ted M. Cannon (Reg. No. 55,036)
Jarom D. Kesler (Reg. No. 57,046)
Philip M. Nelson (Reg. No. 62,676)

KNOBBE, MARTENS, OLSON & BEAR, LLP
3520 Main Street, Fourteenth Floor
Irvine, CA 92614
Tel.: (949) 760-0404
Fax: (949) 760-9502

E-mail: MasimoIPR-257@knobbe.com

/Crena Pacheco/
Crena Pacheco
Fish & Richardson P.C.
60 South Sixth Street, Suite 3200
Minneapolis, MN 55402
pacheco@fr.com

CLAIMS APPENDIX

Underlining and strikethrough text show the modifications to the original claim being made in the corresponding substitute claim; the modifications are additionally bolded for viewing convenience.

23. (Substitute for claim 3, if found unpatentable)

The electronic device of claim 1, wherein the first portion is electrically isolated from the second portion **by an electrically isolating component inserted between the first and second pads;**

wherein the exterior surface of the enclosure comprises an exterior surface of the second portion, wherein the second pad is positioned underneath the exterior surface of the second portion of the enclosure; and wherein the first and second pads are adjacent pads.

24. (Substitute for claim 11, if found unpatentable)

The electronic device of claim 1, wherein the second lead is configured to detect the second electrical signal of the user's cardiac signal via the user's contact with the second lead;

wherein the first pad is embedded in an inner surface of an electrically conductive metal bezel that forms a portion of an exterior surface of the electronic device; and

wherein the second pad is exposed on the exterior surface of the electronic device for direct contact from a user.

25. (Substitute for claim 12, if found unpatentable)

The electronic device of claim 1, **further comprising a touch screen display,** wherein the first portion of the enclosure is a bezel;
wherein the bezel extends around the touch screen display; and
wherein the first pad is embedded in an inner surface of the bezel.

26. (Substitute for claim 13 if found unpatentable)

The electronic device of claim 1, wherein the ~~second~~first portion of the enclosure is a bezel, **the electronic device further comprising:**

a third lead comprising a third pad that is embedded in the second portion of the enclosure, wherein the third pad is configured to detect a third electrical signal of the user's cardiac signal via the user's skin's contact with the third pad; and

wherein the second pad is configured to detect the second electrical signal of the user's cardiac signal via the user's skin's contact with the second pad;

wherein the first pad detects signals through a first hand, and the second and third pads detect signals through a second hand.

27. (Substitute for claim 14 if found unpatentable)

The electronic device of claim 1, wherein an interior surface of the enclosure comprises an interior surface of the first portion, wherein the first pad is positioned on the interior surface of the first portion;

wherein the processor is further configured to extract one or more characteristics of the detected cardiac signal and compare the extracted one or more characteristics with one or more characteristics previously stored in memory that were associated with an authorized user; and

wherein if the extracted one or more characteristics match those of an authorized user, the electronic device authenticates the user.