

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 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

I. Introduction

Patent Owner, Apple Inc., respectfully moves under 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121 to conditionally amend challenged claims 16-22 (hereinafter “challenged MTA claims”) of the ’257 patent. In the event the Board finds at least one challenged MTA claim unpatentable, Apple respectfully requests that the Board grant this Motion to Amend (MTA) with respect to the corresponding proposed substitute claim(s). Accordingly, this Motion to Amend is contingent upon a determination of unpatentability of the challenged MTA claim(s). Patent Owner also requests Preliminary Guidance.

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). Specifically, the substitute claims are i) presented in a claim listing; ii) reasonable in number; iii) responsive to a ground of unpatentability involved in the trial; iv) non-broadening; and v) supported by the written description. *Id.* at 4-8. Moreover, the motion confirms (hereby and as explained below) Patent Owner’s belief that the proposed substitute claims are patentable over all known prior art, whether alone or in combination.

Having met its burdens, Apple respectfully submits that it is entitled to the contingent substitute claims unless Petitioner “prove[s] all propositions of

unpatentability.” *Aqua Products v. Matal*, 872 F.3d 1290, 1310 (Fed. Cir. 2017)(*en banc*).

II. Statement of Relief Requested

Pursuant to the Board’s Pilot Program, Patent Owner requests the Board’s Preliminary Guidance as to this Motion to Amend.

To the extent the Board finds any of original claims 16-22 unpatentable, Apple respectfully requests that the Board grant this 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 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 retain all features of the corresponding original claims, and add non-broadening limitations. The proposed claims thus do not enlarge the scope of the corresponding original claims in any way. The following table specifies how each proposed substitute claim does not broaden the corresponding original claim.

Original claim #	Substitute Claim #	Amendments (none of the substitute claims have broadening amendments)
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16	22	<ul style="list-style-type: none">• Claim depends from claim 12 instead of claim 15• 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.
17	23	<ul style="list-style-type: none">• Claim depends from claim 22 instead of claim 16• 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 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.

18	24	<ul style="list-style-type: none">• Claim depends from claim 23 instead of claim 16• wherein the second and third pads are adjacent pads; and• wherein an electrically isolating component is inserted between the second and third pads.
19	25	<ul style="list-style-type: none">• Claim depends from claim 1 instead of claim 15• wherein the first pad is coupled to an electrically conductive metal bezel forming 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.
20	26	<ul style="list-style-type: none">• Claim depends from claim 1 instead of claim 15• 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

		<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.
21	27	<ul style="list-style-type: none">• Claim depends from claim 1 instead of claim 20• 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;• wherein the first and second pads are adjacent pads; and• wherein an electrically isolating component is inserted between the first and second pads.
22	28	<ul style="list-style-type: none">• Claim depends from claim 27 instead of claim 20• wherein the first pad detects signals from a first hand and the second pad detects signals from a second hand;

		<ul style="list-style-type: none">• wherein the first and second portions of the enclosure are located on a same face of the electronic device; and• wherein the first and second portions of the enclosure each comprise a metallic conductive portion exposed for direct user contact.
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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 Contingent Motion to Amend conditionally proposes amendments to claims 16-22 that are responsive to Petitioner's grounds in the instant IPR. For

example, in response to at least Ground 2, Apple's proposed substitute claims clarify that:

- (1) 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;
- (2) 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;
- (3) 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.
- (4) the second and third pads of the claimed device are adjacent pads; and an electrically isolating component is inserted between the second and third pads.
- (5) 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. (6) the second pad of the device is positioned underneath the exterior surface of the second portion of the enclosure, and the electronic device further includes an electrically isolating component is inserted between the first and second pads, which are adjacent pads.

For example, while the issued '257 Patent claims recite an “electronic device,” the substitute claims clarify that device includes specific elements (e.g., 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. 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 claims¹.

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.

¹ 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 MTA claims that are a subset of the challenged claims in the IPR petition for amendments, and for each challenged MTA 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). 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.² In particular, the '257 Patent issued from

² The support citations herein are not necessarily exhaustive or meant to limit the meaning of the corresponding limitations.

Application No. 14/136,658, which was filed on December 20, 2013 and published as Patent Application Publ. No. 2014/0171776 (APPLE-2001). The '257 Patent claims priority to U.S. provisional application No. 61/111,498, filed November 5, 2008 (APPLE-2002), and is a continuation of U.S. patent application No. 12/358,905, filed on January 23, 2009, and issued as U.S. Pat. No. 8,615,290.

Claim	Written Description Support	
	APPLE-2001	APPLE-2002
22	Amended features: ¶¶[0009], [0016]-[0018], [0024]-[0025], [0034], [0042], [0044]-[0050], [0055]; FIGS. 3, 4B, 5	Amended features: ¶¶[0008], [0014]-[0017], [0023]-[0024], [0033], [0041], [0042]-[0054]; FIGS. 3, 4B, 5
23	Amended features: ¶¶[0034], [0043]-[0044], [0046]-[0047]; FIGS. 3, 4B, 5	Amended features: ¶¶[0033], [0042]-[0043], [0045]-[0046]; FIGS. 3, 4B, 5
24	Amended features: ¶¶[0010]- [0011], [0047]	Amended features: ¶¶[0009]- [0010], [0046]

25	Amended features: ¶¶[0009], [0016]-[0018], [0034], [0042], [0044]-[0050], [0055]; FIGS. 3, 4B, 5	Amended features: ¶¶[0008], [0015]-[0017], [0033], [0041], [0043]-[0049], [0054]; FIGS. 3, 4B, 5
26	Amended features: ¶¶[0007], [0051]	Amended features: ¶¶[0006], [0050]
27	Amended features: ¶¶[0009]- [0011], [0033], [0050], [0055]; FIGS. 3, 5	Amended features: ¶¶[0008]- [0010], [0032], [0049], [0054]; FIGS. 3, 5
28	Amended features: ¶¶[0006], [0009]-[0011], [0033], [0043], [0050], [0055]; FIGS. 3, 5	Amended features: ¶¶[0005], [0008]-[0010], [0032], [0042], [0049], [0054]; FIGS. 3, 5

V. Level of Ordinary Skill in the Art

A person of ordinary skill in the art on or about the claimed priority date of the '257 Patent (“POSITA”) would have had at least a bachelor’s degree in electrical engineering, mechanical engineering, biomedical engineering, computer engineering, physics, or a related field, and would have had at least two years of relevant work experience with capture and processing of data or information, including but not limited to physiological information, or equivalents thereof. Less

work experience may be compensated by a higher level of education and vice versa.

VI. 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.

VII. 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).

VIII. 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: 1/8/2024

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e)(4), the undersigned certifies that on January 8, 2024, a complete and entire copy of this Patent Owner's 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:

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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.

22. (Substitute for claim 16, if found unpatentable)

The electronic device of claim 12[[15]], **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.

~~**wherein the first lead is configured to detect the first electrical signal of the user's cardiac signal via the user's contact with the first lead.**~~

23. (Substitute for claim 17 if found unpatentable)

The electronic device of claim 22[[16]], **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.

~~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.~~

24. (Substitute for claim 18 if found unpatentable)

The electronic device of claim 23[[16]], wherein the second and third pads are adjacent pads; and

wherein an electrically isolating component is inserted between the second and third pads.

~~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 display screen.~~

25. (Substitute for claim 19 if found unpatentable)

The electronic device of claim 1 [[5]], 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.

~~the first portion of the electronic device comprises a bezel of the enclosure;~~

~~the electronic device further comprises a non-conductive component positioned between the bezel and the display screen for electrically isolating the first lead from the second lead.~~

26. (Substitute for claim 20 if found unpatentable)

The electronic device of claim 1 [[5]], 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. ~~wherein the first lead is configured to detect the first electrical signal of the user's cardiac signal via the user's contact with the first portion of the enclosure.~~

27. (Substitute for claim 21 if found unpatentable)

The electronic device of claim 1 [[20]], 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;

wherein the first and second pads are adjacent pads; and

wherein an electrically isolating component is inserted between the first and second pads. ~~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.~~

28. (Substitute for claim 22 if found unpatentable)

The electronic device of claim 27[[20]], wherein the first pad detects signals from a first hand and the second pad detects signals from a second hand;

wherein the first and second portions of the enclosure are located on a same face of the electronic device; and

wherein the first and second portions of the enclosure each comprise a metallic conductive portion exposed for direct user contact.

~~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 display screen.~~