

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ALIVECOR, INC.,
Petitioner

v.

APPLE INC.,
Patent Owner

Case No. IPR2023-00950

U.S. Patent No. 10,076,257 B2

PETITIONER'S SUPPLEMENTAL CLAIM CONSTRUCTION BRIEFING

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Patent Trial and Appeal Board
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LIST OF EXHIBITS

Exhibit	Short Name	Description
Ex. 1001	'257 Patent	U.S. Patent No. 10,076,257 B2
Ex. 1002	'257 File History	Prosecution History of U.S. Patent No. 10,076,257 B2
Ex. 1003	Berger Declaration	Declaration of Dr. Ronald D. Berger
Ex. 1004	Berger CV	Curriculum vitae of Dr. Ronald Berger
Ex. 1005	Markel	U.S. Patent Appl. No. 11/492,278
Ex. 1006	Nissilä	U.S. Patent No. 6,775,566
Ex. 1007	Righter	U.S. Patent No. 5,191,891
Ex. 1008	Farrington	U.S. Patent No. 7,502,643
Ex. 1009	Cardiology Explained	EUAN A. ASHLEY & JOSEF NIEBAUER, CARDIOLOGY EXPLAINED (2004)
Ex. 1010	Cudahy	U.S. Patent No. 5,184,620
Ex. 1011	Sujdak	U.S. Patent No. 6,847,836
Ex. 1012	Geddes	U.S. Patent No. 4,606,352
Ex. 1013	Ceballos	U.S. Patent No. 6,522,915
Ex. 1014	Gilles	U.S. Patent No. 4,635,646
Ex. 1015	Weiss	U.S. Patent No. 5,623,926
Ex. 1016	Apple's Complaint	Complaint, <i>Apple Inc. v. AliveCor, Inc.</i> , Case No. 4:22-cv-07608-HSG, Dkt. No. 1 (N.D. Cal., Dec. 12, 2022)
Ex. 1017	Hobson	U.S. Patent No. 7,876,274

Exhibit	Short Name	Description
Ex. 1018	National Judicial Caseload Profile	U.S. District Courts – National Judicial Caseload Profile (accessed via https://www.uscourts.gov/sites/default/files/cms_na_distprofile0331.2022.pdf)
Ex. 1019	Ducker Decl.	Declaration of Philip Ducker
Ex. 1020	Engstrom	U.S. Patent Application Publication No. 2008/0113650
Ex. 1021	Berger Second Decl.	Second Declaration of Ronald D. Berger, M.D., Ph.D., F.H.R.S.
Ex. 1022	Kenny Tr.	Transcript of June 19, 2024 deposition of Dr. Thomas W. Kenny
Ex. 1023	Berger Third Decl.	Third Declaration of Ronald D. Berger, M.D., Ph.D., F.H.R.S.

Pursuant to the Order on Conduct of the Proceeding (Paper 37), Petitioner AliveCor, Inc. submits this Supplemental Claim Construction Brief.

I. It is not necessary to adopt a claim construction for “embedded [in].”

The Board does not need to adopt a construction for “embedded [in]” because AliveCor and Apple agree the phrase deserves its plain and ordinary meaning. *See* Paper 25 (Pet. Reply) at 1-4; *see also* Paper 20 (PO Resp.) at 7; Ex. 1019 (Kenny Tr.), 33:7-33:11; *DJI Europe B.V. v. Textron Innovations Inc.*, IPR2022-00162, Paper 18 (Final Written Decision) at 9-10 (P.T.A.B. May 31, 2023) (holding that a term does not need to be construed when the parties agree that the term deserves its plain meaning). Though there is no dispute the plain and ordinary meaning applies, however, there is a dispute over its scope.

AliveCor contends that the plain meaning of “embedded [in]” simply entails inclusion within a larger entity. Paper 25 (Pet. Reply) at 2. The broad claim language was intended to exclude only electrode pads that are “remotely coupled” via “wires,” as evident from Apple’s prosecution arguments distinguishing *Gilles*. Ex. 1003, ¶¶ 68-69 (citing Ex. 1002.240-41; Ex. 1014, Fig. 8). As AliveCor explained, this interpretation is consistent with the intrinsic record and Apple’s own extrinsic evidence (*see* Paper 25 (Pet. Reply) at 1-6) and was confirmed by AliveCor’s expert. *See* Ex. 2013 (Berger Tr.) at 57:8-15 (“It may be that ‘embedded in’ is perhaps a

broadier term than ‘adjacent.’”). AliveCor’s interpretation should be adopted.¹

In contrast, Apple urges a contrived, litigation-driven interpretation. Apple contends that under the plain and ordinary meaning of “embedded [in],” “it is not sufficient for two components to be merely in parallel contact or adjacent to each other.” Paper 20 (PO Resp.) at 8. Apple then imports a requirement that “at least a portion of a first material or component (e.g., the embedded first pad) must be at least partially set in or partially surrounded by a second material or component (e.g., a portion of the enclosure).” *Id.* From the other side of its mouth, however, Apple tries to preserve litigation positions with a broadening, footnoted caveat that “[b]eing “partially surrounded by” a material does not require direct contact with the material.”² Furthermore, Apple’s interpretation is inconsistent with statements made during prosecution, wherein the applicant repeatedly identified both descriptions of Fig. 4B as examples of “embedded [in]” claim language. *See* Ex. 1002, 207-209 (“The heart sensor includes a first lead embedded in a first portion of the

¹ If “embedded [in]” is found to require express construction, that construction should be “included within a larger entity” (consistent with plain meaning).

² For this, Apple cites to paragraphs 27-28 of Dr. Kenny’s declaration. But these paragraphs do not address any “direct contact” requirement, which underscores that the footnote is litigation-inspired attorney argument.

enclosure As a specific example, with respect to applicants’ FIG. 4B, . . . lead 472 of the heart sensor can be positioned against the back surface of bezel 460, or lead 472 can be placed within the thickness of bezel 460 (e.g., in a pocket within the bezel wall”). Apple’s interpretation is also inconsistent with dependent claim 8, which narrows the “embedded [in]” structure to a “pocket underneath the exterior surface.” For the reasons in AliveCor’s Reply (Paper 25 (Pet. Reply) at 1-6) and the substantially different arguments and evidence here (*see* Section III), the Board should reject Apple’s construction of “embedded [in].”

II. Adopting Apple’s interpretation would have no impact.

If the Board disagrees with AliveCor and adopts Apple’s construction of “embedded [in],” there is no impact on Grounds 1, 2, or 3.

Ground 1. AliveCor argued that *Markel* renders obvious the “first lead” (as recited in element [1.c.i]) because *Markel* discloses an electrode pad that “is ‘***molded into the audio output portion 610***’ or positioned on the main body portion 610’ of the electronic device.” Paper 2 (Pet.) at 11–13 (citing Ex. 1003 ¶¶ 118–119; Ex. 1005 ¶¶ 50, 5859, Fig. 10); Ex. 2013 (Berger Tr.) at 97:8-16. The Board credited this analysis in its Institution Decision. *See* Paper 12 at 23-24. During his deposition, Dr. Berger confirmed that AliveCor’s theory is that *Markel* discloses that its electrode pad may be underneath the surface *and* “molded” within the thickness of the enclosure. *See* Ex. 2013 (Berger Tr.) at 19:12-20:14 (“[W]hat is referred to as the

electrode may be material that's on the surface *or within the—or molded into the surface material.*”), 75:21-77:22, 25:15-26:1. This is consistent with claim 8, where AliveCor explained the electrode pad is within a “pocket” of *Markel*’s enclosure. *See* Paper 2 (Pet.) at 40-42. An electrode pad that is underneath the surface and “molded” within the thickness of the enclosure meets “embedded [in]” under Apple’s interpretation. Ex. 2013 (Berger Tr.) at 97:8-16. Adopting Apple’s interpretation therefore would not impact AliveCor’s positions under Ground 1.

Ground 2. Apple does not dispute that *Nissilä* meets the “embedded [in]” language of element [1.c.i]. *See* Paper 20 (PO Resp.) at 15-22. Adopting Apple’s interpretation would not impact AliveCor’s positions under Ground 2.

Ground 3. AliveCor relied on *Righter* for claims 12, 13, and 19. Adopting Apple’s interpretation would not impact AliveCor’s positions under Ground 3.

III. In this Proceeding, substantial differences in evidence and argument warrant a different interpretation of “embedded [in]” than 745-IPR.

In the 745-IPR, the Board had to choose between Apple’s interpretation and Masimo’s construction. *See* 745-IPR, Paper 44 at 13-21. The Board rejected Masimo’s construction because (1) Masimo had advanced contradictory positions in district court litigation; and (2) Masimo’s construction was inconsistent with the intrinsic record. *Id.* at 17, 20-21. Significantly, Masimo did “not directly challenge [Apple’s] construction of ‘embedded in’ or offer its own scope for this claim term.” *Id.* at 19. The parties also agreed that the term “embedded” is broader than

“embedded in.” *See* 745-IPR, Paper 43, 53:1-3. The Board was thus left with Apple’s interpretation of “embedded [in],” which was supported by testimony from Masimo’s own expert. *See id.* at 18-20.

The evidence and arguments are entirely different here. In both the district court and this proceeding, AliveCor *never* proposed a construction; it always and consistently contended that “embedded [in]” should have its plain meaning—inclusion within a larger entity. *See* Paper 2 (Petition) at 4-5; Paper 25 (Pet. Reply) at 1-6. As AliveCor explained, furthermore, this interpretation is consistent with both the intrinsic evidence—including the prosecution history of the applicant distinguishing *Gilles* and relying on descriptions of Fig. 4B, neither of which were cited in the Board’s 745-IPR final written decision—and Apple’s own extrinsic evidence. *See* Paper 25 (Pet. Reply) at 1-6. Unlike 745-IPR, AliveCor has expressly disputed that “embedded in” is narrower than “embedded,” and that “embedded in” is a proper phrase for construction. *See id.* The testimony of AliveCor’s expert does *not* support Apple’s interpretation of “embedded [in].” Ex. 2013 (Berger Tr.) at 57:8-15. And using testimony unavailable in 745-IPR, AliveCor demonstrated that Apple’s interpretation is premised on a grammatical error with the word “in.” *See* Paper 25 (Pet. Reply) at 5 (citing Ex. 1022, 127:14-128:19). The record here warrants adopting a different interpretation of “embedded [in]” than in 745-IPR.

Date: October 30, 2024

By: /Christopher TL Douglas /
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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§42.6(e), 42.105, the undersigned hereby certifies that true and correct copies of the above-captioned PETITIONER'S SUPPLEMENTAL CLAIM CONSTRUCTION BRIEFING was served via electronic mail to the following attorneys of record for Patent Owner:

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