

Filed: March 20, 2026

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

DH INTERNATIONAL LTD.,
Patent Owner.

Case IPR2024-01322
Patent No. 9,022,294

AUTHORIZED RESPONSE TO DIRECTOR REVIEW REQUEST

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Patent Owner’s Conflicting, Unsubstantiated Arguments Regarding “Close Proximity” Are Incorrect and Do Not Warrant Director Review	1
III.	Petitioner’s Arguments Are Properly Supported by Intrinsic and Extrinsic Evidence	6
IV.	The Board’s Findings Regarding the Prior Art “Activation Cue” Are Well-Reasoned and Supported by Substantial Evidence	9

TABLE OF AUTHORITIES

Page(s)

Federal Cases

<i>Axonics, Inc. v. Medtronic, Inc.</i> , 75 F.4th 1374 (Fed. Cir. 2023)	11
<i>SAS Institute, Inc. v. Iancu</i> , 584 U.S. 357 (2018).....	11

Federal Statutes

35 U.S.C. § 311(b)	6
35 U.S.C. § 318	1, 10

Regulations

37 C.F.R. § 42.104(B)(4)	6
--------------------------------	---

I. Introduction

In its Request for Director Review (“Request”), Patent Owner advances a series of new arguments while urging the Director to reconsider the Board’s soundly supported factual findings in the Final Written Decision (“FWD”)—neither are appropriate for Director Review. As Patent Owner correctly notes—but then promptly disregards—Requests for Director Review of the Board’s final decision under 35 U.S.C. § 318 shall be limited to decisions presenting (a) an abuse of discretion, (b) important issues of law or policy, (c) erroneous findings of material fact, or (d) erroneous conclusions of law. Patent Owner does not establish that any of these threshold requirements are met. Instead, Patent Owner’s Request raises new arguments that plainly contradict the evidence of record and even Patent Owner’s previous arguments. Patent Owner’s Request should be summarily denied for failing to meet the legal standard for review, or, alternatively, should be denied because the Board’s FWD applies sound law and well-reasoned factual analyses to reach the correct conclusion that the claims of the ’294 patent are invalid.

II. Patent Owner’s Conflicting, Unsubstantiated Arguments Regarding “Close Proximity” Are Incorrect and Do No Warrant Director Review

Patent Owner advances two arguments relating to dependent claims 8 and 16—both of which blatantly mischaracterize the record and fail for lack of evidence.

First, Patent Owner argues the Board “committed legal error be [*sic*] invalidating claims 1-20 when the Petitioner failed to identify where in *Mooney* or

Mooney and *Lee* ‘a close proximity’ and ‘a range’ are both described or ‘close proximity’ is described as being closer or within ‘a range.’” Request at 3.

At the outset, any alleged error with respect to *dependent* claims 8 and 16 could not extend to claims 1-7, 10-15, or 17-20. Nevertheless, Patent Owner’s allegation that *Mooney* or *Mooney* and *Lee* fail to disclose “a close proximity” is wrong. Dependent claims 8 and 16 recite:

where the cellular phone is conveyed toward a close proximity of the first external data exchange device and within a range to receive the activation cue to initiate the wireless data exchange.

As explained in the Petition, “*Mooney* discloses or renders obvious claim 8 because *Mooney*’s first data transceiver (a cue receiver) receives ‘quality’ Bluetooth signals (an activation cue) from a ‘piconet front end’ and ‘base unit’ (first external data exchange device) when in close proximity to the base unit.” Paper 1 at 50 (citing *Mooney*, 1:31-34, 2:36-47, 2:53-3:7, 3:13-25, 3:49-51, 4:6-15, 4:28-36, 6:14-25, 6:45-51; Lipoff, ¶144). In other words, when *Mooney*’s device is close to the base unit (in close proximity)—and in a range to receive the “quality Bluetooth signals (activation cue)—*Mooney* teaches establishing a call. Paper 1 at 50; *see also* Paper 19 at 25. Specifically, the Petition stated:

Mooney explains that when a caller on the multimode cell phone is “within range of the cordless telephone base station that is matched to the cordless telephone mode of the 3-in-1 cell phone,” the piconet/Bluetooth cordless module is informed of the signal quality (via its first

transceiver/cue receiver) and a call may be established in cordless mode via the BLUETOOTH™ link.

Paper 1 at 50-51 (citing *Mooney*, 2:53-3:7, 4:34-37, 6:18-25, Fig. 2; [1.h]; Ex. 1003, ¶¶ 144-145).

The Board credited Petitioner’s argument and supporting evidence. FWD at 23-24.

In response, Patent Owner now argues “[n]othing in the patent supports that a close proximity is closer than a range to receive the activation cue” but that “the opposite interpretation” is true, “the range element being closer than the close proximity.” Request at 2. Patent Owner appears to argue, for the first time¹, that the “close proximity” must be wholly distinct from “within a range to receive the activation cue.” Patent Owner cites no evidence to support its argument and offers no explanation why “a range” and “close proximity” are mutually exclusive.

This new argument contradicts various arguments advanced by Patent Owner throughout the proceeding. Patent Owner in its Patent Owner’s Response insisted “[c]lose proximity is described in the ’294 Patent as ‘a proximity transceiver that allows data transmission *within a limited range*, such as within several meters[,] for

¹ Per the Board’s guidelines, “[t]he Director will not consider new evidence or new arguments not part of the official record.”

example.” Paper 17 at 41 (emphasis added). Then at oral argument, Patent Owner admitted “there is no measurement of what close proximity is in the patent” (Paper 32 at 37:10-13) and further indicated “[t]he close proximity is smaller” when asked if “the range is smaller than the close 16 proximity?” Paper 32 at 39:16-19. Complicating matters further, Patent Owner now also alleges that “the plain meaning of ‘close proximity’ is *a distance*²” but apparently a distance exclusive of that necessary to receive the activation cue. Request at 4 (emphasis added).

Now that the trial has concluded in Petitioner’s favor, Patent Owner argues that “a range” is somehow narrower than, and exclusive of, a “close proximity.” Patent Owner’s constantly changing and conflicting interpretation of its claims should be rejected. Its unsubstantiated, contradictory argument is insufficient to warrant Director Review and must be rejected. Patent Owner’s related argument that “Petitioner provides no evidence of ‘close proximity’ being closer than ‘a range’” (Request at 2-3) is premised on its unsubstantiated assertion that the claims require

² This new construction is an untimely and wholly improper construction of the term “close proximity.” Patent Owner previously argued “a POSITA would consider close proximity to be 10 meters or less.” Paper 17 at 8. Then at Oral argument, Patent Owner argued “there is no measurement of what close proximity is in the patent.” Paper 32 at 37:10-13.

as much, and must be rejected for the same reason. The only constants in this proceeding are Petitioner's interpretation, its mapping to *Mooney*'s disclosure that indisputably teaches this limitation, and the Board's well-reasoned adoption of Petitioner's interpretation and factual bases.

Second, Patent Owner argues the Board "committed legal error by adopting an unsupported definition of 'close proximity' that *required movement* of the cellular phone within a range to receive the activation cue." Request at 24 (emphasis added). The Board did no such thing. The Board expressly stated that the term is "***not*** [defined] by limiting the physical distance between the devices" and found "the plain meaning of 'close proximity' is 'within a range to receive the activation cue to initiate the wireless data exchange.'" FWD at 23 (emphasis added). The Board made no mention of "required movement." Patent Owner is simply incorrect.

Although premised on a nonexistent construction, Patent Owner also seems to advocate that the '294 patent lacks written description for its own claim language, arguing, "*nothing in the patent supports a cellular phone within a range to receive an activation cue has to be moving....i.e., cellular phone conveyed toward a close proximity.*" Request at 4. And, in the same breath, Patent Owner argues the exact opposite, stating, "the plain meaning of 'close proximity' is a distance, *as supported by the claim that it requires movement towards an object.*" Request at 4 (emphasis added). While irrelevant because the Board's construction of the plain meaning of

“close proximity” does not require movement, Patent Owner’s inconsistent arguments demonstrate its complete disregard for—or misunderstanding of—the record and the Board’s reasoning in the FWD. These arguments fail to demonstrate an abuse of discretion or erroneous conclusion of law and should be rejected. The Board’s claim interpretation is consistent with the plain language of the claims, and its well-reasoned adoption of Petitioner’s interpretation and factual bases are sound.

III. Petitioner’s Arguments Are Properly Supported by Intrinsic and Extrinsic Evidence

Next, Patent Owner reasserts its untimely³ argument that Petitioner fails “to identify where all the elements are found within the printed publication as required by 35 U.S.C. § 311(b).” and “relies on the Expert’s view of what a POSITA would know rather than the text of the printed patent as required by 35 U.S.C. § 311(b).” Request at 6-7.

As the Board correctly determined, these arguments “are incorrect, conclusory, and fail to shake the merits of the Petition and Petitioner’s Reply arguments.” FWD at 52. Patent Owner’s arguments also fail because the Office’s July 31, 2025, memorandum titled “Enforcement And Non-Waiver Of 37 C.F.R. § 42.104(B)(4) And Permissible Uses Of General Knowledge In Inter Partes Reviews”

³ This position was first advanced in Patent Owner’s Sur-Reply. Paper 24 at 2-4.

(“Memo”) rejects the position Patent Owner advances.⁴ That Memo expressly permits petitioners to rely on their expert “to support a motivation to combine or to demonstrate the knowledge of a person having ordinary skill in the art.” Petitioner did exactly that. The following paragraphs discuss each and every citation to the expert declaration that Patent Owner challenges, proving their proper use.

Specifically, Petitioner’s expert declaration, Ex. 1003 at ¶¶ 84, 100, 103, 109-110, explains what a POSITA would have understood *based on the express disclosure* of Mooney:

Ex. 1003 at ¶ 84:

Mooney explains that “the 3-in-1 cell phone,” as was known in the art, “include[s] the ability and convenience of storing all phone book data, calling history and user preferences.” *Mooney*, 1:32-45. *Mooney* also explains that “the need to initiate, establish and switch over to another mode (e.g., to a cordless telephone call using a piconet cordless telephone) is determined, either automatically or manually, by an appropriate processor in the multimode cell phone.” *Mooney*, 7:9-12. **Thus, a POSITA would have understood...**

Ex. 1003 at ¶¶ 99-100:

Mooney explains that factors including “the quality of the RF link (e.g., the BLUETOOTH™ piconet link)” determine which

⁴ The non-waiver provisions of the Memo “apply to any petition for IPR filed *on or after September 1, 2025*.” To the extent Patent Owner seeks to improperly apply those provisions retroactively to the Petition, the Petition’s arguments are still permissible under the Memo as demonstrated above.

communication link (and operational mode) the multimode cell phone should use. *Mooney*, 6:14-25, 6:45-51. Thus, when a caller on the multimode cell phone is “within range of the cordless telephone base station that is matched to the cordless telephone mode of the 3-in-1 cell phone” and/or the “cordless telephone link (e.g., a piconet BLUETOOTH™ link of good quality) has been established with the cordless base for a given length of time (e.g., for at least two minutes),” the piconet/Bluetooth cordless module is informed of the signal quality (via its first transceiver/ cue receiver) and a call may be established in cordless mode via the BLUETOOTH™ link. *Mooney*, 2:53-3:7, 4:34-37, 6:18-25, Fig. 2; see also 1:31-34...3:49-51, 4:12-15...Fig.1, Fig. 2...**Accordingly a POSITA would have understood...**

Ex. 1003 at ¶103:

Mooney explains that the ‘automatic switch over module 101 is in communication with each communication path functionality, e.g., with the cell phone functionality 100a, the piconet cordless telephone functionality 100b, and ... [t]he desired mode of the multimode cell phone 100 may be controlled through suitable communications with each communication path functionality 100a–100c.’ *Mooney*, 1:54-61, 3:56-63. **Thus, a POSITA would have understood...**

Ex. 1003 at ¶¶ 108-110:

Mooney discloses that its automatic switch over module switches to cell phone mode when the multimode cell phone 100 “senses” that it has extended beyond an “acceptable” Bluetooth range—that is, when the piconet/Bluetooth cordless module transceiver (cue receiver) no longer receives quality Bluetooth signals from the piconet base unit, the switch is assigned to cell phone mode. *Mooney*, 4:17-23, Fig. 1. *Mooney* also explains that “the user may be prompted about impending loss of signal,” causing the device “switch communication path” in an “entirely automated” fashion. *Mooney*, 4:41-49. Thus, when “the need (or desire) to change communication modes to a cellular mode is determined,” due to “automatic detection of the quality of the RF link (e.g., the BLUETOOTH™ piconet link) below a preset level,” “the multimode cell phone 100 may switch from cordless mode to cell phone mode.” *Mooney*, 4:57-58, 6:45-51. **Accordingly, a POSITA would have understood...a POSITA would have also understood...**

Petitioner's expert declaration at ¶¶134-135 explains why a POSITA would have been motivated to modify *Mooney* and had a reasonable expectation of success in doing so. Thus, contrary to Patent Owner's argument, Petitioner's mappings are not "based upon unsupported assertions" and Petitioner properly relied on expert testimony "to support a motivation to combine or to demonstrate the knowledge of a person having ordinary skill in the art" in each of its mappings claim elements [1.a], [1.e], [1.f], and [1.h].

IV. The Board's Findings Regarding the Prior Art "Activation Cue" Are Well-Reasoned and Supported by Substantial Evidence

Finally, Patent Owner argues "Petitioner failed to establish that the activation cue is received as required by the independent claims." Request at 4-9. According to Patent Owner, "[t]he determination of quality is a measurement and is not received by [*Mooney's*] receiver." Request at 4. Patent Owner is wrong.

As the Board correctly found, "Mooney discloses a base station that communicates information (data) about the quality of the Bluetooth signal to a piconet cordless module transceiver in the cell phone." FWD at 42-44. Patent Owner does not refute the Board's reasoned analysis crediting Mr. Lipoff's testimony and supporting evidence that "a POSITA would have understood that after the paging messages and before the establishment of a call using the Bluetooth link, devices exchange message signals to set up an ACL link, which enables the creation of a reliable L2CAP connection" and that "in the context of Bluetooth, a POSITA would

have known that part of this series of messages involves the transmission of information that indicates the signal is of sufficient quality to support a reliable connection.” FWD at 43 (quoting Ex. 1014 ¶ 48 (citing Ex. 1007 (“Larsson”), 3:23–4:22, 7:56–58, 8:48–53, Fig. 5)). Nor could it—Patent Owner did not address Larsson Figure 5 or Mr. Lipoff’s related testimony in its Sur-Reply, and Patent Owner did not depose Mr. Lipoff during the IPR Proceeding.

Nothing in the record substantiates Patent Owner’s argument that the Petition failed to establish that the activation cue is received, as required by the independent claims, or that the Board erred in a manner deserving of Director Review.

Patent Owner’s remaining arguments rest on strawmen characterizations of the Petition and the FWD and are internally inconsistent, and thus fail under §318.

First, Patent Owner contends the Board failed to “provid[e] how a measurement and a timer located in a cellular phone meet the cue receiver being in receipt of the activation cue element of the independent claims.” Request at 4 (citing FWD, 12). The Board did not determine that “a measurement and a timer located in a cellular phone meet the cue receiver being in receipt of the activation cue.” Rather, according to the Board, a preponderance of the evidence established that “Mooney discloses a base station that communicates information (data) about the quality of the Bluetooth signal to a piconet cordless module transceiver in the cell phone.” FWD at 42-44. In other words, the Board found that the base station transmits data

about signal quality to the cue receiver, which is then received, as required by the claims. This was the mapping advanced in the Petition, and the Board is not required to address Patent Owner’s hypotheticals untethered to that mapping. FWD at 49 (“The answer to the question must be determined based on the contentions raised in the Petition.”) (citing *SAS Institute, Inc. v. Iancu*, 584 U.S. 357, 367 (2018); *Axonics, Inc. v. Medtronic, Inc.*, 75 F.4th 1374, 1380 (Fed. Cir. 2023)) (quoting *SAS Institute*)).

Next, Patent Owner continues to attack its own strawmen, arguing “dialing a phone number along with the quality of the resulting connection is not an activation cue.” Request at 7. But this argument is not reflected in the Petition or Board’s findings. Instead, the Petition explains:

Mooney’s automatic switch over module (data conveyance switching element) is assigned, by the processor, to a first state (piconet/Bluetooth connection for cordless telephone mode) upon coming in range of the base unit 110 and receiving at the piconet module transceiver (cue receiver) a quality Bluetooth signal (activation cue) indicating that the phone is capable of establishing a call in piconet/Bluetooth cordless mode.

Paper 1 at 32 (emphasis added) (citing Ex. 1003 ¶ 106; Ex. 1005, 5:8–11, 6:14–24); *see also* Paper 1 at 26-28; Paper 17 at 4 (“The Petition asserts that receiving ‘quality’ Bluetooth signals is an activation cue from a ‘piconet front end.’ Pet. 26.”).

Patent Owner also conflates the quality Bluetooth signal—which the Petition mapped to the activation cue (*see* Paper 1 at 26)—with a communication link—

which the Petition mapped to an RF link such as Bluetooth link (*see* Paper 1 at 17)—to argue “Petitioner asserts that the quality of the communication link that is measured at the cellular phone is a ‘received’ activation cue.” Request at 8-9. This is not the mapping in the Petition as explained above. Patent Owner further relies on this incorrect premise to argue Petitioner mapped the same teaching to “two different claim elements.” Request at 8-9. Not only did Petitioner not map the same teaching to two claimed elements, the Board considered and rejected this same argument based on the express mappings in the Petition. FWD at 46 (“we reject Patent Owner’s arguments that ...the Bluetooth communication link ‘is being used for two different claim elements’ in the Petition.”).

Finally, Patent Owner alleges that “Petitioner fails to explain how measuring a communication link over a period of time, where the measurement of the communication link is not received to determine the quality of the signal, rather it is a measurement generated in the handset, is receiving an activation queue [*sic*] as required by the claims.” Request at 8. As with Patent Owner’s other arguments, this incoherent statement is divorced from the Petition and fails to articulate why the Board’s findings constitute an abuse of discretion or otherwise hinge on an erroneous finding of fact or conclusion of law. Patent Owner attempts to recast the Petition and refute its fabricated arguments, but it again simply fails to address the actual mappings in the petition or the Board’s findings.

Each of these arguments should be rejected. Patent Owner cannot manufacture legal error or erroneous findings of fact by ignoring the actual statements in the Petition and FWD and instead recasting them as it pleases. Patent Owner's inability or unwillingness to address the reality of the Petition and FWD does not constitute an abuse of discretion, erroneous finding of material fact, or erroneous conclusion of law. Its Request must be denied.

Date: March 20, 2026

Respectfully Submitted,

/Erika H. Arner/

Erika H. Arner (Reg. No. 57,540)
Counsel for Petitioner

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing Authorized Response to Director Review Request was served electronically via email on March 20, 2026 in its entirety on the following:

Robert P. Hart
robert@addyhart.com

Meredith Martin Addy
meredith@addyhart.com

Gregory B. Gulliver
gbgulliver@addyhart.com

litigation-dkt@addyhart.com
DHI-IPR@addyhart.com

Patent Owner has consented to service by email.

Dated: March 20, 2026

/Lisa C. Hines/

Lisa C. Hines
Case Manager
Finnegan, Henderson, Farabow,
Garrett & Dunner, LLP