

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

K/S HIMPP,
Petitioner

v.

BRAGI GmbH,
Patent Owner

Case No. IPR2023-01205
Patent No. 10,397,688

PATENT OWNER'S PRELIMINARY RESPONSE

Mail Stop "PATENT BOARD"
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	BACKGROUND	2
A.	The '688 Patent	2
1.	Existing Technology	3
2.	Advantages Provided by the '688 Patent	4
3.	The '688 Patent Components	6
4.	The Operation of the '688 Patent Inventions	9
B.	Alleged Prior Art	11
1.	Hain	12
2.	Shaffer	12
3.	Sorensen	13
III.	Level of Ordinary Skill	13
IV.	Claim construction	13
A.	“smart case” [Claims 3-7, 9-10 and 12-13]	14
B.	“earpiece[s]” [All Challenged Claims]	15
V.	Argument	16
A.	Ground 1: Hain Does Not Anticipate Claims 1, 2 and 4	16
1.	Limitation [1B]: Hain Does Not Disclose “powering circuitry of the wireless earpieces utilizing a high-power mode in response to detecting a magnetic field is not applied to one or more of the wireless earpieces;”	16
2.	Limitation [1C]: Hain Does Not Disclose “altering the power sent to the circuitry of the wireless earpiece to a high-power mode in response to detecting a magnetic field is not applied to one or more of the wireless earpieces;”	18
3.	Limitation [1D]: Hain Does Not Disclose “altering the power sent to the circuitry of the wireless earpieces to a low power mode in response to detecting a magnetic field is applied to one or more of the wireless earpieces;”	19
1.	Claims 2 and 4	21

B.	Grounds 2 and 3	21
1.	The Examiner Did Not Commit a Material Error.....	21
2.	Shaffer Was Presented to the Office and Considered by the Examiner	23
3.	Petitioner Has Not Shown Error in Examination of the Patent.....	24
4.	Ground 2: Shaffer in view of Hain Does Not Render Obvious Claims 1-6, 8-12 and 14	26
5.	Ground 3: Shaffer in view of Hain and Sorensen Does Not Render Obvious Claims 3, 5-7, 9-14	27
VI.	CONCLUSION.....	27

TABLE OF AUTHORITIES

	Page(s)
CASES	
<i>ABS Global, Inc. v. Cytonome/ST, LLC</i> , IPR2021-00306, Paper 13	25
<i>Advanced Bionics, LLC v. MED-EL Elektromedizinische Geraete GmbH</i> , IPR2019-68869, Paper 6 (PTAB Feb. 13, 2020)	22, 23, 24, 25
<i>Alza Corp. v. Mylan Laboratories, Inc.</i> , 391 F.3d 1365 (Fed. Cir. 2004)	14, 15
<i>Becton, Dickinson & Co. v. B. Braun Melsungen AG</i> , IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017)	22, 23
<i>Juniper Networks, Inc. v. Mobile Telecom. Tech., LLC</i> , IPR2017-00642, Paper 31, 22 (PTAB Mar. 14, 2018)	25
<i>Medtronic CoreValve LLC v. Speyside Medical, LLC</i> , IPR2021-00310, Paper 9 (PTAB July 23, 2021)	24, 25
<i>NXP USA, Inc. v. Impinj, Inc.</i> , IPR2020-00519, Paper 7 (PTAB Aug. 17, 2020)	25
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005) (<i>en banc</i>)	13, 14
<i>PowerOasis, Inc. v. T-Mobile USA, Inc.</i> , 522 F.3d 1299 (Fed. Cir. 2008)	25
<i>Toyota Motor Corp. v. Cellport Systems, Inc.</i> , IPR2015-00633, Paper No. 11 (Aug. 14, 2015)	14
STATUTES	
35 U.S.C.	
§ 102	1
§ 103	1
§ 313	1, 2
§ 314(a)	2
§ 325(d)	21, 22, 25

OTHER AUTHORITIES

37 C.F.R.

§ 42.107.....	1
§ 100(b) (2019)	13

I. INTRODUCTION

Bragi GmbH (“Patent Owner” or “Bragi”) submits this preliminary response in accordance with 35 U.S.C. § 313 and 37 C.F.R. § 42.107, responding to the Petition for *Inter Partes* Review (“Petition”) of U.S. Patent No. 10,397,688 (the “’688 Patent”) filed by K/S HIMPP, (“Petitioner” or “HIMPP”). HIMPP petitions for *inter partes* review of claims 1-14 of the ’688 Patent, which is owned by Bragi. HIMPP’s Petition asserts three grounds for institution as shown in the table below, claiming that the challenged claims of the ’688 Patent are anticipated or rendered obvious.

Ground 1 alleges that certain Challenged Claims of the ’688 Patent are anticipated under 35 U.S.C. § 102.

Ground	References	Claims
1	Hain ¹	1, 2, 4

Grounds 2 and 3 allege that certain Challenged Claims of the ’688 Patent are rendered obvious under 35 U.S.C. § 103.

¹ “Hain” is DE Patent Application No. 102007039455 (Ex-1004).

Ground	References	Claims
2	Shaffer ² and Hain	1-6, 8-12, 14
3	Shaffer, Hain, and Sorensen ³	3, 5-7, 9-14

For the reasons explained in further detail below, Petitioner has not shown a reasonable likelihood that *any* Challenged Claim is unpatentable, so institution should be denied. 35 U.S.C. § 314(a) (“The Director *may not authorize an inter partes review to be instituted unless* the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that *there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.*”) (emphasis added).

II. BACKGROUND

A. The '688 Patent

The '688 Patent discloses a system and method for managing wireless earpieces. Ex-1001, Abstract. The system utilizes circuitry, which, in response to detecting a magnetic field powers the one or more wireless earpieces in a low power mode, or in absence of detecting the magnetic field powers the one or more wireless

² “Shaffer” is U.S. Patent Publication No. 2015/0245126 (Ex-1003).

³ “Sorensen” is U.S. Patent No. 8,265,315 (Ex-1005).

earbuds in a high power mode. *Id.* at Abstract, 1:35-43. A reed switch connects the battery of the one or more wireless earpieces to the circuitry, connecting the circuitry to the battery when a magnetic field is not detected, and disconnecting the circuitry from the battery when a magnetic field is detected. *Id.* at 1:44-52. In other words, the '688 Patent provides a system in which one or more wireless earpieces interact with a smart case in order to preserve battery life, by entering a low power mode when the one or more earpieces are detected in the case, or a high power mode when the one or more earpieces are not detected in the case, presumably removed for the user to play audio.

1. Existing Technology

Wearable listening devices for personal audio playback have existed and evolved from the late 1970's to the early 2010's time of the invention.⁴ These devices came in the form of either wired over-ear headphones or wired in-ear earpieces that were physically connected to a playback device that was worn or held by the user.

⁴ See Colin Toh, *When Were Headphones invented: The Complete History*, Headphonesty, Aug. 18, 2023, https://www.headphonesty.com/2021/05/when-were-headphones-invented/#1979_The_Walkman.

These options all suffered drawbacks with their design and use. For example, wired headphones or earpieces restricted the user's enjoyment of the device during certain activities, such as exercise, because the wires interfered with the user's movements. Additionally, headphones that went over or around the ear were uncomfortable and might become less secure to the user's ear during movement, also interfering with an active user's enjoyment of the device.

With decreasing size of microprocessors, circuit boards, chips, and other components, the growth of wearable devices was increasing exponentially at the time of invention of the '688 Patent. These devices are dependent on battery life to function for their intended purpose since wireless wearable devices were not hardwired to any sort of battery pack. Poor battery life results in a reduced user experience, with less uptime for functioning devices. Additionally, the inability to conserve battery life by switching battery usage modes on these wearable devices further frustrated longevity of battery life in the booming wearable device and specifically wireless earbud market. Ex-1001, 1:19-32.

2. Advantages Provided by the '688 Patent

The '688 Patent addressed these deficiencies by claiming a system and method for managing and preserving battery life. Ex-1001, 2:35-37. Figure 1 of the '688 Patent, reproduced below, demonstrates some of the novel aspects in a particular embodiment. As shown below, the invention claimed in the '688 Patent

allows one or more wireless in-ear earpieces to interact with a smart case comprising a rechargeable battery capable of being utilized to charge a wireless earpiece to perform various actions. For example, the '688 Patent provides multiple functionalities for interaction including utilizing the smart case to preserve the battery life of the wireless earpieces while in a low power mode or state and ensuring charging of the earpieces to a desired level, overcoming the interference from headphone wires.

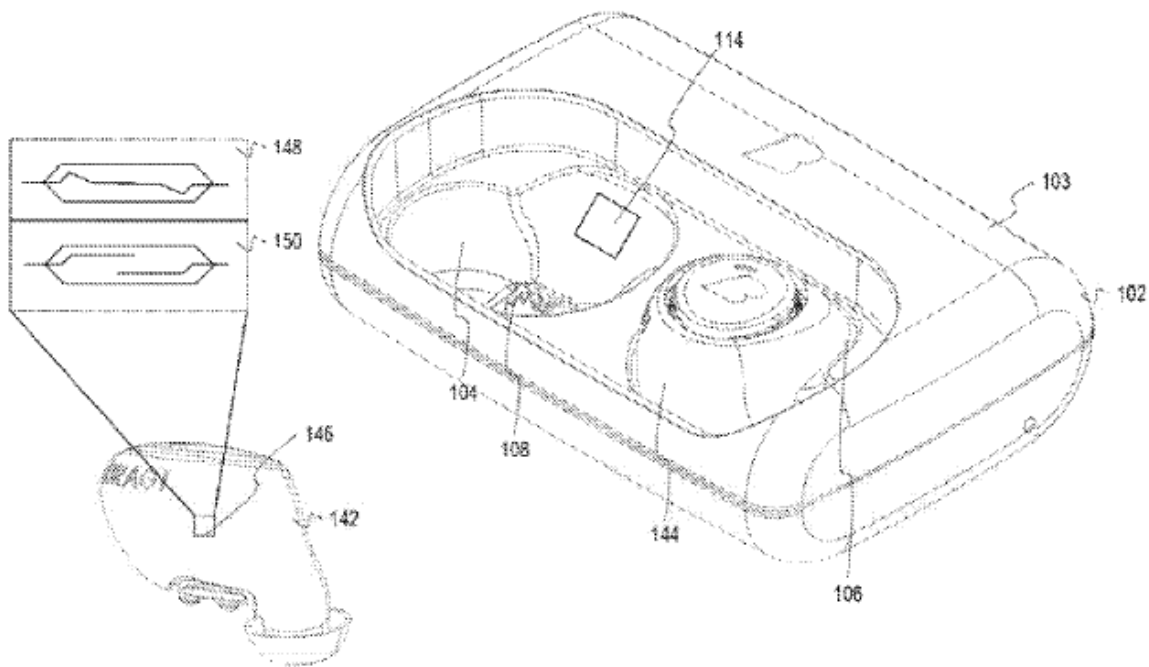


FIG. 1

Ex-1001, Fig. 1.

Further, a reed switch may be utilized in the wireless earpieces to activate and deactivate each of the wireless earpieces. Ex-1001, 2:52-62, Figure 1. The reed switch is an electrical switch operated by an applied magnetic field, which is provided by a magnet of the smart case. *Id.* The magnet of the smart case thereby turns wireless earpieces on and off, and the integration of reed switches reduces weight, cost, and footprint of wireless earpieces while increasing ease of use and battery life for the earpieces. *Id.*

The wireless earpiece may operate in a variety of power modes. For example, the wireless earpiece may operate in a power saver or a low power mode, in which the wireless earpiece utilizes minimal power to maintain functionality and alert status of the wireless earpiece. *Id.* at 10:15-36. The wireless earpiece may also operate in a high-power mode, which is implemented upon detecting that the wireless earpieces have been removed from the smart case. *Id.*

3. The '688 Patent Components

The claimed '688 Patent system comprises one or more wireless in-ear earpieces and a smart case. Each of these components is described in more detail below.

The wireless earpieces may be referred to as a pair or singularly. Ex-1001, 3:1-3, Figure 2 (reproduced below). The wireless earpieces include a set of left and

right in-ear earpieces configured to fit into a user's ears and play music or audio, receive and make phone calls, and read user biometrics and actions. *Id.* at 3:5-11.

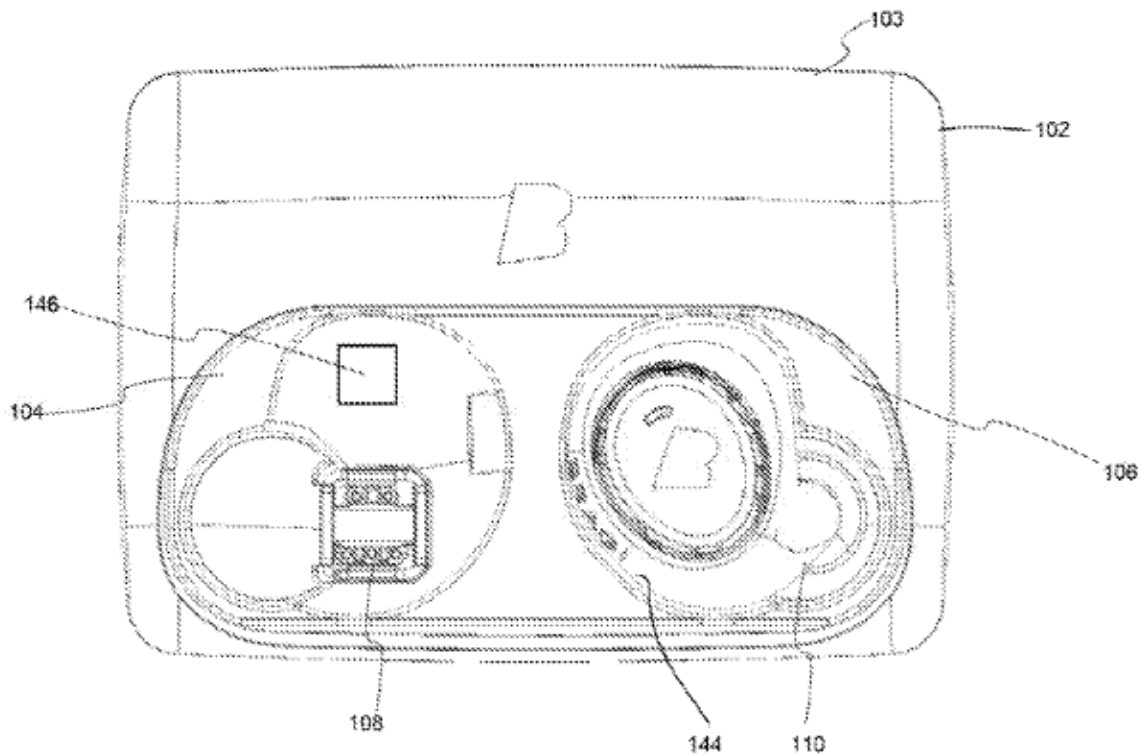


FIG. 2

Ex-1001, Fig. 2.

The smart case encloses a battery and various other circuitry. *Id.* at 3:25-26. The battery of the smart case may be utilized to charge the wireless earpieces any number of times before the smart case and corresponding battery may require

charging. *Id.* at 3:31-34. The battery may charge the wireless earpieces through direct contact or wirelessly. *Id.* at 26-28. The wireless earpieces fit securely within the smart case. *Id.* at 3:55-60.

The wireless in-ear earpieces are configured to fit into a user's ears and may each include a reed switch. *Id.* at 3:5-7, 5:31-36. The reed switch operates in a closed mode when no magnetic field is present or in an open mode when a magnetic field is present. *Id.* The magnetic field is supplied by one or magnets of the smart case, such that the reed switch is in the closed mode when the wireless earpieces are outside of the smart case and in an open mode when the wireless earbuds are in the smart case. *Id.* When the reed switch is in the open mode indicating that the wireless earpieces are in the smart case, the wireless earpieces may be charged by the smart case. *Id.* at 5:39-47. When the wireless earpieces are removed from the case for use, the reed switch is in a closed mode, which results in the wireless earpieces functioning under their own power. *Id.* The reed switch may initiate a self-power (or high power) mode when deactivated (closed) by the magnet of the smart case. *Id.* at 8:1-21. As a result, the wireless earpieces may be fully activated and ready for use.

The smart case may include a battery, a logic engine, a memory, interfaces, a transceiver, and a magnet as shown in Figure 4, reproduced below. The smart case may also include a touch interface or display, indicating the status of the smart case,

for expel, lighting up to indicate the status of the smart case's rechargeable battery and the battery status of the connected wireless earpieces. *Id.* at 6:21-27.

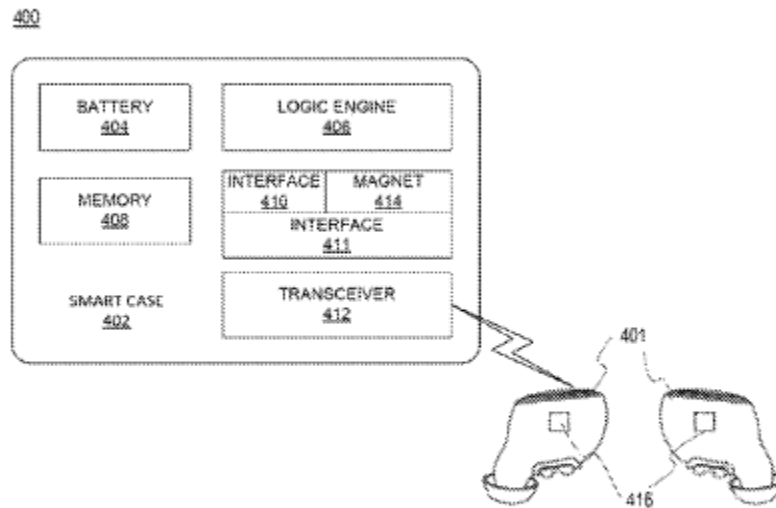


FIG. 4

Ex-1001, Fig. 4.

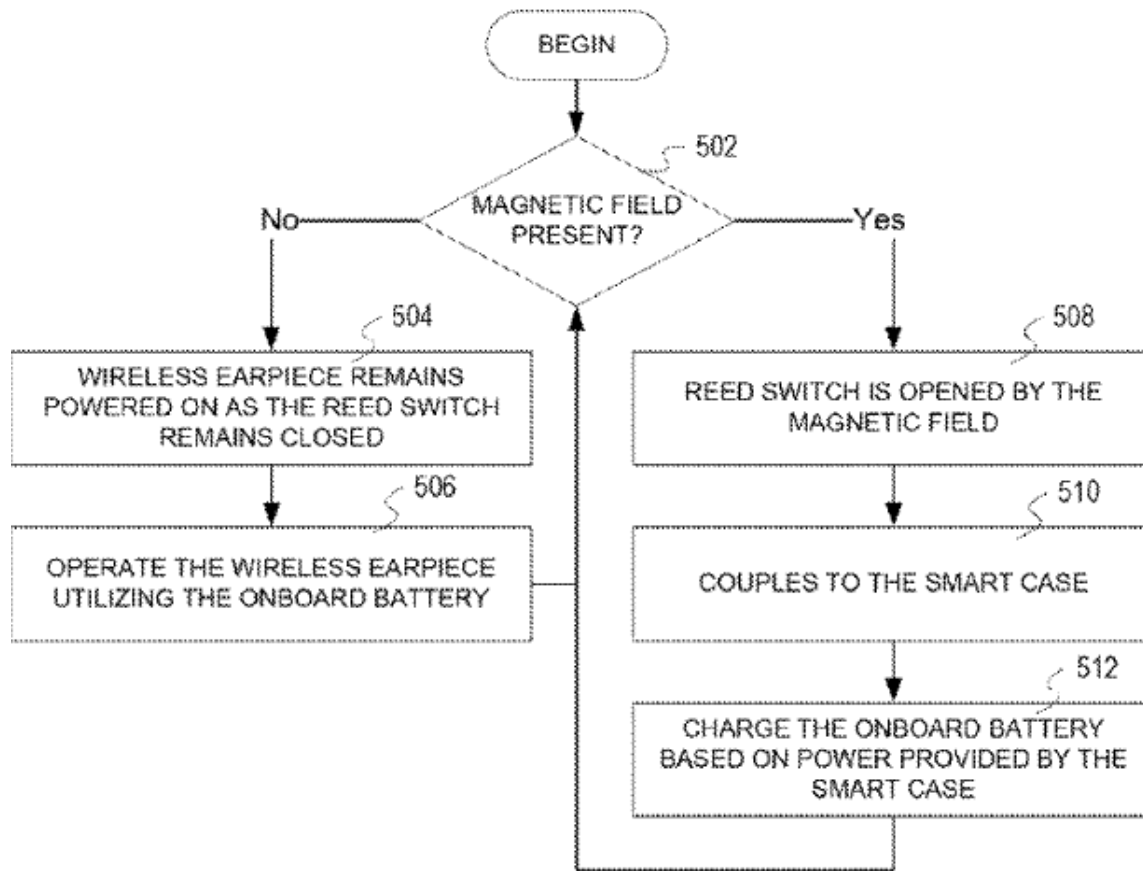
4. The Operation of the '688 Patent Inventions

In operation, the wireless earpieces interface with a smart case. The process begins with one or more wireless in-ear earpiece determining whether a magnetic field is present. This determination may be based on the interaction of a magnet or magnetic field with a reed switch of the wireless earpiece. If the magnetic field is not present, the wireless earpiece remains powered on and the reed switch remains closed. When in this state, the onboard battery of the wireless earpiece powers and operates the wireless earpiece to ensure full functionality. Ex-1001, 8:32-53.

If the magnetic field is determined to be present, the reed switch is opened by the magnetic field. In this state, the wireless earpiece may move to a low power mode in order to preserve battery life when the reed switch is activated, indicating that the wireless earpiece is within the smart case. *Id.* at 8:62-9:13.

Next, the wireless earpiece couples to the smart case. Then, the wireless earpiece charges the onboard battery based on power provided by the rechargeable battery of the smart case. *Id.* at 3:25-28. The wireless earpiece may also determine whether a charge is required, for example a charge threshold may be utilized. *Id.* at 9:15-55. The wireless earpiece may also download or synchronize data with the smart case, including biometric information.

At any of steps of 508-510 (Figure 5, reproduced below), the wireless earpiece may enter into a power saver or low power mode. During this low power mode, the wireless earpiece utilizes minimal power to maintain functionality and alert status. As a result, the battery of the wireless earpieces can be maintained in an optimal state, until the earpieces are removed from the smart case and the wireless earpiece transitions from the lower power mode to a high power mode. *Id.* at 10:10-32, Figure 5.



Ex-1001, Fig. 5.

B. Alleged Prior Art

As shown above, HIMPP presents three grounds challenging claims 1-14 using various combinations of 13 using various combinations of Hain, Shaffer and Sorensen. Petition, 6. These references are described briefly below.

1. Hain

Hain generally discloses a dual hearing aid system with magnetic field sensors, such that one hearing aid is automatically switched into an operating mode when one sensor unit detects the magnetic field, or both aid devices are switched-off when the sensor units simultaneously detect the magnetic field. Ex-1004, Abstract. Hain is aimed at solving the problem of providing an automatic switching off of the devices in a hearing aid system when the system is removed from the user's head. *Id.* at [0006]. In some scenarios, the magnetic field is only detected by one hearing aid, which indicates that the hearing aid is “telephoning,” and the hearing aids remain active or is automatically switched to the operating mode “telephoning.” *Id.* at [0013]. In other scenarios, when the magnetic field is detected by both hearing aids, the hearing aids enter an off state. *Id.* at Abstract. The modes of operation described by Hain are a “normal operation,” the “telephoning” operation, and an off state. *Id.* at [0021]-[0022].

2. Shaffer

Shaffer discloses a mobile device case which operates as an electrical charger and storage dock for wireless earbuds. Ex-1003 at [0002]. Each earbud may include sensors, including a pressure sensor or a magnetic sensor that identifies when the earbud is within or outside the case. *Id.* at [0011]. This identification allows the earbuds to be activated when removed from the case or powered down when placed

inside of the case. *Id.* A magnet may be used to secure the earbud in the case. *Id.* at [0012]. The case has electrical components which allow the earbud batteries to be charged in the case when the case is plugged into a power source via a charging cable. *Id.* at [0047].

3. Sorensen

Sorensen is directed to a hearing aid system including a charging station in which a hearing instrument is mounted to charge the hearing instrument without removal of the battery. Ex-1005, Abstract. The system provides communication between the charging station and the hearing instrument when the hearing instrument is placed in the charging station, such that data can be exchanged between the devices. *Id.* at 6:25-62. Data is exchanged once a pre-established threshold of battery life on the rechargeable battery has been reached. *Id.*

III. LEVEL OF ORDINARY SKILL

For this Response, Bragi applies Petitioner's definition of a POSITA. Pet. at 17. Bragi reserves the right to present issues relating to the level of a POSITA should the Board institute this IPR and in other proceedings involving the '688 Patent.

IV. CLAIM CONSTRUCTION

The claims in an *inter partes* review (IPR) are construed using the same standard that applies in district court proceedings, as set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*); 37 C.F.R. § 100(b) (2019). Claim

terms are afforded “their ordinary and customary meaning,” which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1312–13. “The Board only construes the claims when necessary to resolve the underlying controversy.” *Toyota Motor Corp. v. Cellport Systems, Inc.*, IPR2015-00633, Paper No. 11 at 16 (Aug. 14, 2015) (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Patent Owner does not believe construction of any claim term is required to resolve the specific disputes raised in this Petition. However, Patent Owner submits construction of the following terms for the purpose of consistency with this family of patents. *See* IPR2023-01150 at Patent Owner Preliminary Response, Paper 7. The present claims are not anticipated and/or rendered obvious under any reasonable construction.

A. “smart case” [Claims 3-7, 9-10 and 12-13]

“Smart case” as used in Claims 3-7, 9-10 and 12-13 should be construed as “a case comprising a rechargeable battery capable of being utilized to charge a wireless earpiece.” This construction is consistent with the intrinsic record (*see Alza Corp. v. Mylan Laboratories, Inc.*, 391 F.3d 1365, 1370 (Fed. Cir. 2004)), which discloses:

- “The smart case **102** encloses a battery, and various other circuitry (not shown). The battery of the smart case **102** may be utilized to charge the wireless earpieces **142**, **144** through direct contact or wirelessly.” Ex. 1001, 3:25-28.

- “For example, the battery of the smart case **102** may be utilized to charge the wireless earpieces **142**, **144** any number of times before the smart case **102** and corresponding battery may require charging.” *Id.* 3:31-34.
- “[T]he smart case **402** may include a battery **404**... The battery **404** is a power storage device configured to charge the power storage system of the wireless earpieces **401** once or multiple times.” *Id.* 6:11-16.
- “The battery **404** may itself [be] charged through an interface **410**.” *Id.* 6:28-29.

Patent Owner thus proposes the Board construe “smart case” as “a case comprising a rechargeable battery capable of being utilized to charge a wireless earpiece.”

B. “earpiece[s]” [All Challenged Claims]

“Earpiece[s]” as used in all Challenged Claims should be construed as “an earpiece/earpieces configured to fit into a user’s ears.” This construction is consistent with the intrinsic record (*see Alza*, 391 F.3d at), which discloses that “the wireless earpieces 142, 144 include a set of left and right ear pieces configured to fit in a user’s ears.” 3:5-7. Additionally, the claimed earpieces as depicted in Figures 1, 2, and 4 are “earpieces configured to fit into a user’s ears.”

Patent Owner thus proposes the Board construe “earpiece[s]” as “an earpiece/earpieces configured to fit into a user’s ears.”

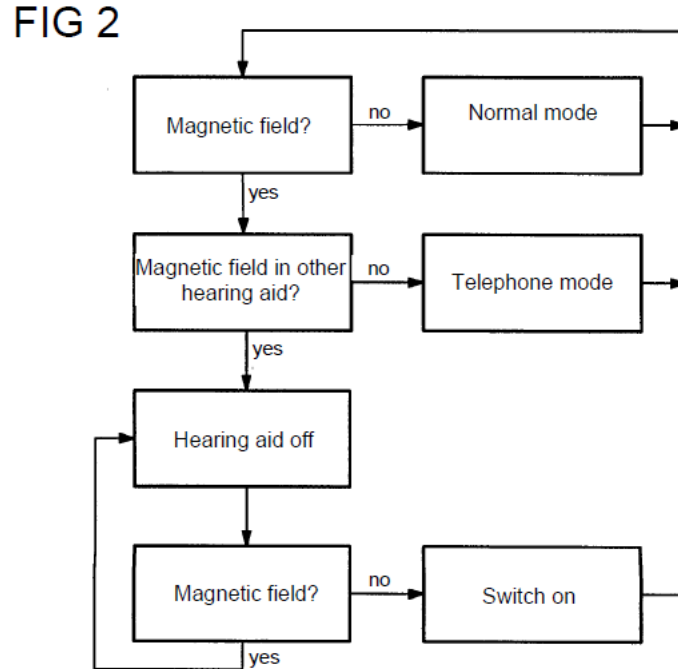
V. ARGUMENT

A. Ground 1: Hain Does Not Anticipate Claims 1, 2 and 4

1. Limitation [1B]: Hain Does Not Disclose “powering circuitry of the wireless earpieces utilizing a high-power mode in response to detecting a magnetic field is not applied to one or more of the wireless earpieces;”

The Petition states that Hain discloses limitation [1B] (Petition, 22), but that is incorrect. Specifically, the Petition states that Hain teaches its earpiece circuitry enters the high-power mode (e.g., normal mode) in response to detecting a magnetic field is not applied to the earpieces. Petition, 24. The Petition relies on Figure 2 of Hain for this disclosure. Critically, Petitioner ignores the claim language, wherein the high power mode is utilized “in response to detecting a magnetic field is not applied to *one or more* of the wireless earpieces.” Ex-1001, Claim 1 (emphasis added).

As shown in Figure 2 of Hain, relied upon by Petitioner for this disclosure, if there is a magnetic field applied to *one* hearing aid but not the other, such as by a telephone receiver emitting a magnetic field, the system will operate in “telephone mode.” Ex-1006, Figure 2, [0004], [0010]. In this mode, the earpieces remain powered on. *Id.* at [0012]-[0013].



Ex-1004, Figure 2.

If *both* hearing aids detect a magnetic field, such as by being located in the disclosed storage box, the hearing aids are automatically switched off. *Id.* at [0013].

The Challenged Claims require that the earpieces switch to a high power mode when *one or more* of the wireless earpieces no longer detects a magnetic field. Hain, on the other hand, discloses switching to what Petitioner considers a high power mode (telephoning mode) when the wireless earpiece(s) detect a magnetic field. This is the opposite of what is claimed, switching to a high-power mode *absent* a magnetic field rather than in response to it.

To anticipate the claims, Hain must disclose an earpiece that switches to a high power mode when only it – and not both it and its pair – no longer detects a magnetic field. And because Hain does not disclose this – but instead discloses the telephoning mode powering an earpiece in response to a magnetic field rather than absent a magnetic field – Hain does not disclose “powering circuitry of the wireless earpieces utilizing a high-power mode in response to detecting a magnetic field is not applied to one or more of the wireless earpieces.”

2. Limitation [1C]: Hain Does Not Disclose “altering the power sent to the circuitry of the wireless earpiece to a high-power mode in response to detecting a magnetic field is not applied to one or more of the wireless earpieces;”

The Petition states that Hain discloses limitation [1C] (Petition, 25), but that is incorrect. Specifically, the Petition states that Hain discloses that the wireless earpieces transition (“switch on”) from the off state to the normal mode when they no longer detect an applied magnetic field, relying on Figure 2 of Hain for support. *Id.* As with Claim limitation [1B], Petitioner once again critically ignores the claim language, wherein the high power mode is utilized “in response to detecting a magnetic field is not applied to *one or more* of the wireless earpieces.” *See supra* § V.A.1.

As with limitation [1B], the Challenged Claims once again require that the earpieces switch to high power mode when *one or more* of the wireless earpieces no

longer detects a magnetic field. Thus, to anticipate the claims, Hain must disclose an earpiece that switches to a high power mode when only it – and not both it and its pair – detect a magnetic field. And because Hain does not disclose this – but instead discloses its earpieces switch on (the alleged high-power mode) only when both do not detect a magnetic field – Hain does not disclose “altering the power sent to the circuitry of the wireless earpiece to a high-power mode in response to detecting a magnetic field is not applied to one or more of the wireless earpieces.”

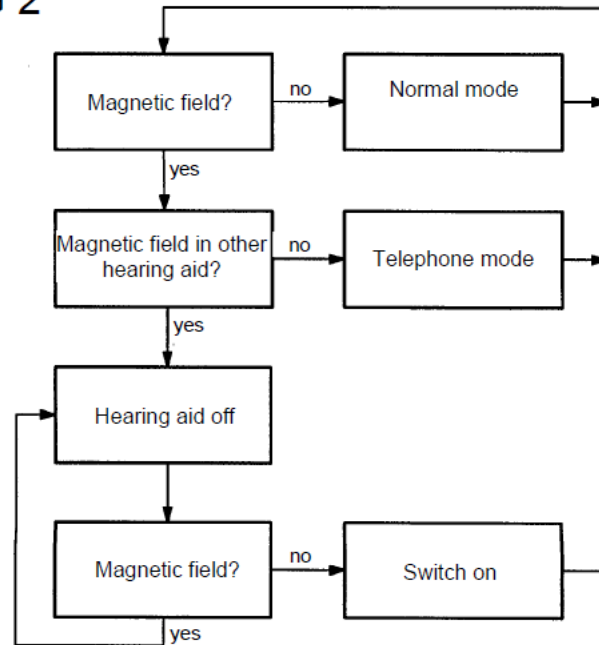
3. Limitation [1D]: Hain Does Not Disclose “altering the power sent to the circuitry of the wireless earpieces to a low power mode in response to detecting a magnetic field is applied to one or more of the wireless earpieces;”

The Petition states that Hain discloses limitation [1D] (Petition, 22), but that is incorrect. Specifically, the Petition states that Hain teaches processes where the earpiece circuitry enters the residual power state or low power mode in response to detecting a magnetic field applied to the earpieces. Petition, 28. The Petition relies on Figure 2 of Hain for this disclosure. Critically, Petitioner ignores the claim language, wherein the low power mode is utilized “in response to detecting a magnetic field is applied to *one or more* of the wireless earpieces.”

As shown in Figure 2 of Hain, relied upon by Petitioner for this disclosure, if there is a magnetic field applied to one hearing aid but not the other, such as by a telephone receiver emitting a magnetic field, the system will operate in “telephone

mode.” Ex-1006, Figure 2, [0004], [0010]. In this mode, at least the telephoning earpiece, the earpiece exposed to the magnetic field, remains powered on, and is not in a “low power mode.” *Id.* at [0012]-[0013].

FIG 2



Ex-1004, Figure 2.

Thus, Hain discloses that if a magnetic field is applied only one earpiece, the earpieces do not enter a low power mode, but instead stay powered on.

Instead, Hain discloses that magnetic field must be applied to *both* hearing aids (such as by the disclosed storage box) to enter a low power mode (i.e., switch off). *Id.* at [0013]. This very distinction – automatically switching off the hearing

aids when *both* detect a magnetic field as opposed to when only one hearing aid detects a magnetic field – is the solution Hain claims to provide. *Id.* at [0013].

However, the Challenged Claims require that the earpieces switch to low power mode when *one or more* of the wireless earpieces detects a magnetic field. Thus, to anticipate the claims, Hain must disclose an earpiece that switches to a low power mode when only it – and not its pair – detects a magnetic field. And because Hain does not disclose this – but instead teaches that its hearing aids should *not* enter a low power mode when only one earpiece detects a magnetic field – Hain does not disclose “altering the power sent to the circuitry of the wireless earpieces to a low power mode in response to detecting a magnetic field is applied to one or more of the wireless earpieces.”

1. Claims 2 and 4

As discussed above, the Petition is deficient in its analysis of Claim 1. *See supra* Section V.A.1-4. For at least the same reasons, the Petition is also deficient in its analysis of the challenged dependent claims (Claims 2 and 4) by virtue of their dependency from Claim 1.

B. Grounds 2 and 3

1. The Examiner Did Not Commit a Material Error

As Petitioner acknowledges, Shaffer was cited by the examiner during prosecution. Petition, 12. The Board may deny institution of a proceeding under 35

U.S.C. § 325(d) if the challenge to the patent is based on matters previously presented to the Office. *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geraete GmbH*, IPR2019-68869, Paper 6 at 7 (PTAB Feb. 13, 2020). Discretionary denial of institution under 325(d) requires: (1) a determination that the same or substantially the same art or arguments were previously presented to the Office and (2) a determination that the Petitioner failed to establish that the Office committed a material error. *Id.* at 8-9.

In determining whether to exercise its discretion under § 325(d), the Board considers the following non-exclusive factors: (a) the similarities and material differences between the asserted art and the prior art involved during examination; (b) the cumulative nature of the asserted art and the prior art evaluated during examination; (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art; (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments. *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586,

Paper 8 at 17-18 (PTAB Dec. 15, 2017) (§ III.C.5, first paragraph, designated precedential) (“Becton Dickinson”).

The Board has explained that Becton Dickinson factors (a), (b), and (d) relate to whether the art or arguments presented in the Petition are the same or substantially the same as those previously presented to the Office. *Advanced Bionics*, Paper 6 at 10. Becton Dickinson factors (c), (e), and (f) “relate to whether the petitioner has demonstrated a material error by the Office” in its prior consideration of that art or arguments. *Id.*

Advanced Bionics provides that “[i]f a condition in the first part of the framework is satisfied and the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute inter partes review.” *Id.* at 8-9. The *Advanced Bionics* “framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.” *Id.* at 9.

Petitioner did not address the *Advanced Bionics* framework. Petition, 12-13. Petitioner (1) relies on prior art reference previously considered by the Examiner and (2) Petitioner made no attempt to show a material error in the prosecution of the patent with respect to the Examiner’s consideration of the same prior art that Petitioner relies on in the Petition. Thus, discretionary denial is appropriate.

2. Shaffer Was Presented to the Office and Considered by the

Examiner

As Petitioner admits, the Examiner cited Shaffer. *See Advanced Bionics* at 7-8 (“Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS), in the prosecution history of the challenged patent.”). As a result, the first part of the *Advanced Bionics* framework is satisfied. *See Medtronic CoreValve LLC v. Speyside Medical, LLC*, IPR2021-00310, Paper 9 at 26 (PTAB July 23, 2021) (determining that the first part of the *Advanced Bionics* framework is satisfied when prior art asserted in the petition was cited in an IDS, and rejecting petitioner’s argument that the first part of the *Advanced Bionics* framework does not apply when the references were not “expressly included in a rejection by the examiner,” because the first part of the *Advanced Bionics* framework “is not so limited.”)

3. Petitioner Has Not Shown Error in Examination of the Patent

Petitioner has not shown material error in the examination of the ’688 patent, despite having the burden to do so. *Advanced Bionics* at 8 (“[I]f either condition of the first part of the [*Advanced Bionics*] framework is satisfied, [the Board considers] whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of the challenged claims.”).

“If a condition in the first part of the [*Advanced Bionics*] framework is satisfied and the petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute inter partes review.” *Advanced Bionics* at 8-9; *NXP USA, Inc. v. Impinj, Inc.*, IPR2020-00519, Paper 7 at 13 (PTAB Aug. 17, 2020) (denying institution under § 325(d) when petitioner did not show error in the Examiner’s consideration of a reference asserted in petitioner’s grounds of challenge); *ABS Global, Inc. v. Cytonome/ST, LLC*, IPR2021-00306, Paper 13 at 13-14 (finding that petitioner did not show error under the second part of the *Advanced Bionics* framework when petitioner did not point out any specific disclosure of an asserted reference that was allegedly overlooked by the Examiner); *Medtronic CoreValve*, IPR2021-00310, Paper 9 at 35-36 (PTAB July 23, 2021) (finding that petitioner did not show error in examination based on the obviousness grounds asserted in the petition that relied on prior art considered during prosecution of the challenged patent).

To show a material error, petitioner must identify a “compelling reason, such as a showing of explicit and intrinsic error.” *Juniper Networks, Inc. v. Mobile Telecom. Tech., LLC*, IPR2017-00642, Paper 31, 22 (PTAB Mar. 14, 2018).

Moreover, the Examiner is presumed to have properly done his or her job in considering the references discussed above. *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1304 (Fed. Cir. 2008) (explaining the “deference that is due to a

qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents”) (internal quotations omitted).

Petitioner has not even attempted to show material error, and as a result, Shaffer should not be considered prior art. As a result, Grounds 2-3, all of which rely on a combination with Shaffer, must fail.

4. Ground 2: Shaffer in view of Hain Does Not Render Obvious Claims 1-6, 8-12 and 14

As discussed above, *supra* § V.B.1-3, Shaffer was considered by the Examiner during prosecution, and the Examiner committed no material error in their prior analysis. The Board may deny institution on this basis alone.

As also discussed above in § V.A, Hain does not disclose wireless earpieces operating in a low-power mode if a magnetic field is detected by one or more earpieces, and a high-power mode if no magnetic field is detected by one or more earpieces. The claims challenged in Ground 2 also require “a lower-power mode” in response to determining that a magnetic field is present, and a “high-power mode if no magnetic field is detected.” *See* Claims 1-6, 8-12 and 14. For the reasons discussed in § V.B.1, Hain does not disclose this limitation, so Ground 2 fails.

5. Ground 3: Shaffer in view of Hain and Sorensen Does Not Render Obvious Claims 3, 5-7, 9-14

As discussed above, *supra* § V.B.1-2, Shaffer was considered by the Examiner during prosecution, and the Examiner committed no material error in their prior analysis. The Board may deny institution on this basis alone.

As also discussed above in § V.A, Hain does not disclose wireless earpieces operating in a low-power mode if a magnetic field is detected by one or more earpieces, and a high-power mode if no magnetic field is detected by one or more earpieces. The claims challenged in Ground 3 also require “a lower-power mode” in response to determining that a magnetic field is present, and a “high-power mode if no magnetic field is detected.” *See* Claims 3, 5-7, 9-14. For the reasons discussed in § V.B.1, Hain does not disclose this limitation. For this reason, Ground 3 featuring Hain, fails to disclose the Challenged Claims.

VI. CONCLUSION

Petitioner has not met its burden to establish a reasonable likelihood that the Challenged Claims of the '688 Patent are unpatentable in view of the cited Grounds. Bragi thus respectfully requests that the Board deny institution.

Dated: December 27, 2023

Respectfully submitted,

/s/ Casey L. Shomaker

Casey L. Shomaker

Reg. No. 77,998

cshomaker@mckoolsmith.com

Richard A. Kamprath

Reg. No. 65,320

rkamprath@mckoolsmith.com

McKool Smith, P.C.

300 Crescent Court, Suite 1500

Dallas, Texas 75201

Telephone: (214) 978-4210

Facsimile: (214) 978-4044

Kaylee Hoffner

(pro hac vice to be requested)

khoffner@mckoolsmith.com

McKool Smith, P.C.

600 Travis Street, Suite 7000

Houston, TX 77002

Telephone: (713) 485-7320

Facsimile: (713) 485-7344

*Counsel for Patent Owner,
Bragi GmbH*

CERTIFICATION OF SERVICE

The undersigned hereby certifies that the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** has been served on Petitioner via email on the following counsel of record for Petitioner:

Haixia Lin
haixia.lin@wilmerhale.com
Brian Lambson
Brian.lambson@wilmerhale.com
Trishan Efram
Trishan.esram@wilmerhale.com

Dated: December 27, 2023

By: /s/ Casey L. Shomaker
Casey L. Shomaker
Reg. No. 77,998

CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned **PATENT OWNER'S PRELIMINARY RESPONSE** specified in 37 C.F.R. § 42.24 have 5,238 words, in compliance with the 14,000 word limit set forth in 37 C.F.R. § 42.24(b)(1). This word count was prepared using Microsoft Word 2010.

Dated: December 27, 2023

By: /s/ Casey L. Shomaker

Casey L. Shomaker

Reg. No. 77,998