

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INDUCTEV, INC.
Petitioner,

v.

WITRICITY CORPORATION,
Patent Owner.

Case IPR2023-01182
Patent 8,461,719

PATENT OWNER'S PRELIMINARY RESPONSE TO PETITION

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EXHIBIT LIST

Ex.	Description
2001	U.S. Patent Application Publication No. 2012/0001492A9 “Cook-492”
2002	Non-Final Office Action Issued June 28, 2012 in file history of U.S. Patent No. 8,461,719
2003	U.S. Patent Application Publication No. 2009/0127937A1 “Widmer”
2004	U.S. Patent Application Publication No. 2009/0079268A1 “Cook-268”
2005	U.S. Patent Application Publication No. 2009/0015075A1 “Cook-075”
2006	U.S. Patent Application Publication No. 2009/0033564A1 “Cook-564”
2007	U.S. Patent Application Publication No. 2009/0072628A1 “Cook-628”
2008	U.S. Patent Application Publication No. 2010/0117454A1 “Cook-454”
2009	U.S. Patent Application Publication No. 2010/0210233A1 “Cook-233”
2010	U.S. Patent Application Publication No. 2009/0134712A1 “Cook-712”

**THE BOARD SHOULD DENY INSTITUTION UNDER 35 U.S.C. §325(D) AND
*ADVANCED BIONICS***

This is the prototypical example of IPR that 35 U.S.C. § 325(d) and *Advanced Bionics, LLC v. Med-El Elektromedizinische Gerate GmbH*, IPR2019-01469, Paper No. 6 at 7 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”) were intended to prevent. Here, the Petition includes only art that the Examiner expressly applied or considered, or that is substantially similar to and cumulative of that art that Petitioner asserts was understood by a person of skill in the art (“POSA”).

Just as the Office found this art had been overcome, the Board should reject Petitioner’s obviousness arguments here resting on a single reference that is in the same family as a reference considered and discussed by the Office. *Becton, Dickinson and Co. v. B. Braun Melsungen AG*, IPR2017-01586, Pap. 8, 22-23 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (“*Becton*”).¹ It would be a waste of the Board’s time and unfairly burden the Patent Owner (“PO”) to revisit the same or substantially the same art and disclosures previously overcome during prosecution.

¹ See also *Motorola Mobility LLC v. Maxell, Ltd.*, IPR2020-01287, Pap. 11, 16 n.8 (PTAB Feb. 2, 2023).

***Advanced Bionics* Two-Part Analysis Framework**

The Board has discretion to determine whether to institute *inter partes* review, and 35 U.S.C. § 325(d) provides that the Director may elect not to institute a proceeding if the challenge to the patent is based on matters previously presented to the Office. *Advanced Bionics* at 7.

In an analysis under § 325(d), *Advanced Bionics* set forth a two-part framework: (1) determining whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of the first part of the framework is satisfied, determining whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Id.* at 8. The purpose of the *Advanced Bionics* two-part framework reflects a commitment by the Board to defer to previous Office evaluations of the evidence of record unless the Petitioner can show that the Office made a material error.

As an initial matter, Petitioner's arguments regarding Section 325(d) and the two-part *Advanced Bionics* analysis appear to be an afterthought. Petitioner presents its arguments on all four grounds *in just five sentences*. Petition at 81. Of course, Petitioner's arguments are summary conclusions with little, if any,

analysis; therefore, those arguments should accordingly be given little to no weight.

As explained below, the Petitioner alleges that both challenged claims are obvious over a *single* prior art reference (Cook-554), which shares priority, inventors, and disclosures with a reference not only considered but also specifically addressed by the Office. Further, the Petitioner alleges four grounds of invalidity, each of which presents the same or substantially the same prior art or arguments that previously were presented to the Office. Therefore, Part One of the *Advanced Bionics* analysis is satisfied for each ground.

Petitioner's Part Two analysis does not discuss or analyze grounds 3 and 4. For grounds 1 and 2, Petitioner's Part Two analysis consists of one sentence. Not surprisingly, in that one sentence Petitioner did not attempt to show how the Examiner failed to consider, misapprehended, or overlooked the teachings of the prior art or the general knowledge of the POSA on those two grounds.

For these reasons, the Board should exercise its discretion under 325(d) and *Advanced Bionics* and deny the Petition.

I. *ADVANCED BIONICS* PART ONE: THE SAME OR SUBSTANTIALLY THE SAME PRIOR ART WAS PREVIOUSLY PRESENTED TO THE USPTO.

The lead references in all four grounds presented by the Petitioner are the same or substantially the same as prior art previously considered by the Examiner

during prosecution of U.S. Patent No. 8,461,719 (the “‘719 Patent”). Importantly, in Grounds 1 and 2, Petitioner asserts that both challenged claims (Claims 16 and 17) are obvious in light of a *single* reference - Cook-554.² But Petitioner admits – as it must – that the pre-grant publication of Cook-554³ was previously considered by the Examiner.

Likewise, Petitioner admits that the pre-grant publication of Cook-523⁴, the lead reference in Ground 3 and one of two references in Ground 4, is listed on the face of the ‘719 Patent and thus was also previously considered by the Examiner. Petition at 53. And Lee, the lead reference in Ground 4 (with Cook-523), and contrary to the assertion by Petitioner (Petition at 64), was itself also previously considered by the Examiner.⁵

Cook-554, Cook-523, and Lee are also the same or substantially the same as other prior art considered by the Examiner, if not also directly discussed by the Examiner, during prosecution. The Petitioner also relies on the general knowledge

² See Petition at 9 to 37 (arguing Claim 1 is obvious in light of Cook-554 alone) and Petition at 38 to 53 (arguing Claim 17 is obvious in light of Cook-554).

³ The Petitioner refers to U.S. Patent No. 8,855,554 as “Cook-554.” The pre-grant publication of Cook-554 is U.S. Patent Publication No. 2009/0243397 to Cook et al., which is listed on the face of the ‘719 Patent (‘719 Patent at p. 3).

⁴ The Petitioner refers to U.S. Patent No. 8,378,523 as “Cook-523.” The pre-grant publication of Cook-523 is U.S. Patent Publication No. 2009/0079268 to Cook et al., which is listed on the face of the ‘719 Patent (‘719 Patent at p. 3).

⁵ The pre-grant publication of Lee is U.S. Patent Publication No. 2007/0145830 to Lee et al., which is listed on the face of the ‘719 Patent (‘719 Patent at p. 3).

of a person of ordinary skill in the art (POSA) and Pohjonen, but these too are the same as or similar to prior art considered by the Examiner. Thus, Part One of *Advanced Bionics* is satisfied. *Advanced Bionics*, at 7-8 (denying institution with three references submitted on IDS and ruling that “[p]reviously 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 patent.”).⁶

A. Grounds 1 and 3: Petitioner argues Claim 16 is obvious over Cook-554, alone or with Pohjonen (Ground 1), and/or Cook-523 and Pohjonen (Ground 3).

In ground 1, the Petitioner argues that Claim 16 is obvious over Cook-554 alone, or with Pohjonen. In Ground 3, Petitioner argues that Claim 16 is obvious

⁶ See also *Sandoz Inc. v. Acerta Pharma B.V.*, IPR2023-00478, Paper 17 at 13 (PTAB Aug. 7, 2023) (denying institution because the same or substantially the same art was previously presented where reference “was listed on a form PTO-892 by the Examiner and [was] listed on the face of the subject patent as a considered-reference.”); *Microsoft Corp. v. AlmondNet, Inc.*, IPR2022-01319, Paper 9 (PTAB Jan. 30, 2023) (denying institution and ruling that *Advanced Bionics* Part One was met because the prior art was presented to the Examiner in an IDS); *Eyenovia, Inc. v. Sydnexis*, IPR2022-00963, Paper 7 at 19 (PTAB Nov. 8, 2022) (denying institution because petitioner failed to show material error where no rejection was issued over IPR references but each was before examiner or cumulative); *Alarm.com, Inc. v. Vivint, Inc.*, IPR2022-00728, Paper 6 at 19-22 (PTAB Nov. 1, 2022) (same).

over Cook-523 (with the same inventors as Cook-554⁷) in combination with Pohjonen. Claim 16 includes the preamble [16pre] and five additional elements: a source resonator [16a], a second resonator [16b], wireless energy transfer [16c], high quality (“Q”) factor [16d], and a low loss tangent material for an enclosure [16e]. Petitioner relies on Cook-554 or Cook-523 for teaching elements [16-pre]-[16d], and on the knowledge of a POSA for the low loss tangent material enclosure [16e]. Assuming, *arguendo*, that Cook-554 and Cook-523 each disclose elements [16-pre]-[16d], then because Cook-554 and Cook-523 were previously considered by the Office, both references are the same as or substantially the same as art and disclosures previously evaluated by the Examiner.⁸ *Advanced Bionics*, at 7-8; *Sandoz*, at 13.

Further, during prosecution and while evaluating then-pending claim 1 of the ‘719 Patent, the Examiner found each of U.S. Patent No. 7,741,734 to Joannopoulos et al. (Ex. 1020), and U.S. Patent Publication No. 2012/0001492 to Cook et al. (“Cook-492”, attached hereto as Ex. 2001) discloses the same or

⁷ Cook-554 lists as inventors Nigel Cook, Hanspeter Widmer, and Lukas Sieber. Cook-523 lists the same three inventors as Cook-554 (Cook, Widmer, and Sieber) but adds a 4th inventor (Dominiak).

⁸ WiTricity does not concede that each of the references relied upon by Petitioner qualify as prior art under 35 U.S.C. § 102 or § 103 and reserves all of its rights regarding same.

substantially the same elements as [16-pre]-[16d]. *See* Office Action of Jun. 28, 2012, pp. 3-4 (Ex. 2002) In particular, the Examiner made the following findings regarding Joannopoulos and Cook-492:

US 8,461,719	Examiner Findings (Office Action of Jun. 28, 2012)	
	Joannopoulos (1:54-60, 2:30-33 and 58-61, 4:37-40, Fig. 1)	Cook-492 (¶¶ [0020]-[0021], [0025], [0034], Fig. 1)
16. A system, comprising: [16pre]	“Joannopoulos discloses a system comprising:”	“Cook discloses a system comprising:”
a source resonator having a Q-factor Q_1 and a characteristic size x_1 [16a] , and	“... a source resonator (1) having a first Q-factor and a characteristic size, ... and ...”	“... a source resonator (112) having a first Q-factor and a characteristic size, ... and ...”
a second resonator having a Q-factor Q_2 and a characteristic size x_2 , and located a distance D from the source resonator [16b] ;	“... a second resonator (2) having a second Q-factor and a characteristic size, ... and located a distance D from the source resonator (1) ...”	“... a second resonator (155) having a second Q-factor and a characteristic size, ... and located a distance D from the source resonator (112) ...”
wherein the source resonator and the second resonator are coupled to exchange energy wirelessly among the source resonator and the second resonator [16c] ; and	“... wherein the source resonator (1) and the second resonator (2) are coupled to exchange energy wirelessly among the source resonator (1) and the second resonator ...”	“...wherein the source resonator (112) and the second resonator (155) are coupled to exchange energy wirelessly among the source resonator (112) and the second resonator (155)”
wherein $\sqrt{Q_1 Q_2}$ is greater than 100 [16d] ,	“...wherein the square root of the product of the Q-factors is	“...wherein the square root of the product of the Q-factors is greater than 100 (e.g. the first Q-

US 8,461,719	Examiner Findings (Office Action of Jun. 28, 2012)	
	greater than 100 (if both Q-factors are greater than 100, the square root of their product will be greater than 100)”	factor may be 1400 and the second Q-factor may be 300) ...”

In fact, Cook-523 (cited by the Petitioner) and Cook-492 (discussed by the Examiner) are related pre-grant publications that both share a common priority claim,⁹ along with four other pre-grant publications (including a continuation-in-part of Cook-523) also considered by the Examiner.¹⁰ Indeed, Cook-523 and Cook-492 share the same inventors.¹¹ *Ivantis, Inc. v. Sight Sciences, Inc.*, IPR2022-01533, Paper 14 at 12-13 (PTAB Mar. 27, 2023) (denying institution where new and previous references were in the same patent family, shared a priority application, listed the same inventors, and disclosures largely overlapped).¹² And at

⁹ U.S. Provisional Patent Application No. 60/904,628.

¹⁰ U.S. Patent Application Publication Nos. 2008/0211320, 2009/0051224, and 2009/0072627; and PCT Patent Application Publication No. WO 2008/109489. Cook-523 is a CIP of US 2008/0211320.

¹¹ Cook-492 lists as inventors Nigel Cook, Hanspeter Widmer, and Lukas Sieber. Cook-523 lists the same three inventors as Cook-492 (Cook, Widmer, and Sieber), but adds a 4th inventor (Dominiak, who is the last listed inventor on Cook-523). Like Cook-492 and Cook-523, Cook-554 also lists as inventors Cook, Widmer, and Sieber.

¹² See also *Darfon Elecs. Corp. v. Shipman*, IPR2022-01008, Paper 11 at 12-13 (PTAB Dec. 2, 2022) (denying institution and ruling that *Advanced Bionics* Part One analysis was met where the art relied upon by petitioner was cumulative because it shared the same inventors and disclosed substantially the same subject

least 63 other patents or pre-grant publications in the same family as Joannopoulos were also considered by the Examiner.¹³ *Id.* Cook-554 and Cook-523 were therefore not only themselves considered by the Examiner during prosecution, Cook-554 and Cook-523 are also the same as or substantially similar to several other references considered by the Examiner during prosecution, including Joannopoulos and Cook-492 that were specifically discussed by the Examiner, at least for elements [16-pre]-[16d]. *Advanced Bionics*, at 7-8; *Ivantis*, at 17 (although the Examiner did not expressly rely on the new reference, *Advanced Bionics* Part

matter as references considered by the Examiner during prosecution); *Alarm.com, Inc. v. Vivint, Inc.*, IPR2022-00728, Paper 6 at 19-20 (PTAB Nov. 1, 2022) (denying institution and ruling that *Advanced Bionics* Part One analysis was met where new art relied upon by petitioner shared the same inventor and had substantially the same disclosure as art considered by the Examiner even though the art was not expressly applied during prosecution).

¹³ U.S. Patent Nos. 7,825,543, 8,022,576, 8,076,800, 8,084,889, and 8,097,983; and U.S. Patent Application Publication Nos. 2007/0222542, 2008/0278264, 2009/0195332, 2009/0195333, 2009/0224856, 2009/0267709, 2009/0267710, 2010/0096934, 2010/0102639, 2010/0102640, 2010/0102641, 2010/0117455, 2010/0117456, 2010/0123353, 2010/0123354, 2010/0123355, 2010/0127573, 2010/0127574, 2010/0127575, 2010/0133918, 2010/0133919, 2010/0133920, 2010/0171370, 2010/0181844, 2010/0187911, 2010/0201205, 2010/0207458, 2010/0225175, 2010/0231053, 2010/0237706, 2010/0237707, 2010/0237708, 2010/0253152, 2010/0264745, 2010/0277005, 2010/0327660, 2010/0327661, 2011/0012431, 2011/0018361, 2011/0025131, 2011/0043046, 2011/0049996, 2011/0049998, 2011/0074218, 2011/0074347, 2011/0089895, 2011/0140544, 2011/0148219, 2011/0162895, 2011/0169339, 2011/0181122, 2011/0193419, 2011/0198939, 2011/0221278, 2011/0227528, 2011/0227530, 2011/0241618, and 2012/0248884.

One was satisfied because it was previously presented during prosecution because the Examiner “considered many similar prior art references”).

Petitioner relies on Cook-554 for the last element of independent claim 16, namely the low loss tangent enclosure [16e]. In particular, the Petitioner cites Cook-554 for teaching integration of a receiving resonant antenna within a portable device like a cellular phone, and argues that a POSA would have found element [16e] obvious in light of Cook-554, or Cook-554 with the knowledge of a POSA. Pet. at 32-35 (and citing Allen Decl. 149-150). But Cook-492 (discussed by the Examiner) also discloses integration of a receiving resonant antenna within a portable device. Cook-492 at [0025] (explaining that the load of its receiver “can be any type of load, for example a resistive load such as a light bulb, or an electronic device load such as an electrical appliance, a computer, a rechargeable battery, a music player ...”). Similarly, Joannopoulos (also discussed by the Examiner) describes applications of its wireless receiver in devices such as computers roaming freely within a room. Joannopoulos, 4:21-29. Therefore, the single reference that Petitioner relies upon to argue that both challenged Claims 16 and 17 are obvious – Cook-554 and its relevant disclosures – are the same or substantially the same as the art (Cook-492 and Joannopoulos) and disclosures previously considered and discussed by the Examiner. *Ivantis*, at 17.

Petitioner also asserts that – even *without* Cook-554 – the knowledge of a POSA would have found it obvious to enclose a second resonator in a low loss tangent material (element [16e]). Petition at 36-37 (and citing Allen Decl. 154); Petition at 63 (and citing Allen Decl. 217-218). By this argument, and because an Examiner is considered a POSA, Petitioner admits that element [16e] (using a low loss tangent material) was presumptively known to, and therefore considered by, the Examiner. In a long line of cases, the Federal Circuit and the Board have made clear that a Patent Examiner is considered a POSA. *Duodecad IT Services Luxembourg S.À.R.L., et al. v. WAG Acquisition, LLC*, IPR2015-01036, Paper 17 at 17 (PTAB Oct. 20, 2016) (citing *St. Clair Intellectual Prop. Consultants, Inc. v. Canon Inc.*, 412 Fed. Appx. 270, 276 (Fed. Cir. 2011) and *In re Lee*, 277 F.3d 1338, 1345 (Fed. Cir. 2002)). And as POSA, the Examiner is presumed to be aware of all pertinent prior art references. *Standard Oil v. American Cyanamid*, 774 F.2d 448, 454 (Fed. Cir. 1985). Accordingly, the low loss tangent material (element [16e]) is the same or substantially the same as other non-cited contemporaneous state of the art systems and methods that were known to, and considered by, the Examiner.

In addition, Petitioner cites Pohjonen for what persons of ordinary skill in the art (POSA) knew regarding cover materials for devices with integrated antennas. Petition at 37 and 63. As noted above, Cook-492 – related to Cook-554 and sharing

inventors – was considered and discussed by the Examiner and also discloses integration of a receiving resonant antenna within a portable device. Cook-492 at [0025]. Hence, like Cook-554, Pohjonen is the same or substantially the same as the art (Cook-492) cited and previously considered and discussed by the Examiner. *Gator Bio, Inc. v. Sartorius Bioanalytical Instruments, Inc.*, IPR2023-00215, Paper 19 at 14 (PTAB June 20, 2023) (in denying institution, the Board determined the newly presented art was cumulative where the “reference was not previously presented to the Office during examination” but it “teaches little, if anything, more relevant to Petitioner’s obviousness challenge than a previously presented reference, which was a focus of the examination of the parent application.”).¹⁴

B. Grounds 2 and 4: Petitioner argues Claim 17 is obvious over Cook-554 (Ground 2) and/or Lee and Cook-523 (Ground 4).

The second and fourth grounds presented in the Petition assert that independent Claim 17 of the ‘719 Patent is obvious in view of Cook-554 alone, and/or Lee with Cook-523 for teaching each of the six elements of Claim 17. These six elements are a source resonator [17a], a second resonator [17b], coupling the source and second resonators to exchange energy wirelessly [17c], the square root

¹⁴ See also *Darfon Elecs. Corp. v. Shipman*, IPR2022-01008, Paper 11 at 12-13 (PTAB Dec. 2, 2022) (in denying institution, Board ruled that substantially the same art was previously presented to the Office when the new art was relied upon for duplicative disclosures).

of the quality factors is more than 100 [17d], a coil with multiple turns in the same plane and connected to a network of capacitors [17e], and the thickness of at least one resonator is much less than the size of that resonator [17f].

Assuming, *arguendo*, that Cook-554 discloses elements [17-pre]-[17e], and that Lee discloses elements [17-pre]-[17c] and [17e], Cook-554 and Lee are clearly the same as same or substantially the same as art and disclosures previously evaluated by the Examiner, at least for elements [17-pre]-[17d], and the network of capacitors of element [17e]. During prosecution of the application that became the ‘719 Patent, evaluating then-pending Claims 1 and 5, the Examiner found Cook-492 discloses the same or substantially the same elements as [17-pre]-[17d], and including the network of capacitors of element [17e]. Office Action of Jun. 28, 2012, pp. 3-4 (Ex. 2002). In particular, the Examiner made the following findings regarding Cook-492:

US 8,461,719	Examiner Findings (Office Action of Jun. 28, 2012)
	Cook-492 (¶¶ [0020]-[0021], [0025], [0034], Fig. 1)
17. A system, comprising: [17pre]	“Cook discloses a system comprising:”
a source resonator having a Q-factor Q_1 and a characteristic size x_1 [17a], and	“... a source resonator (112) having a first Q-factor and a characteristic size, ... and ...”
a second resonator having a Q-factor Q_2 and a characteristic size x_2 ,	“... a second resonator (155) having a second Q-factor and a characteristic

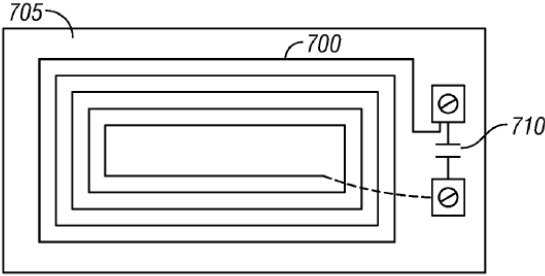
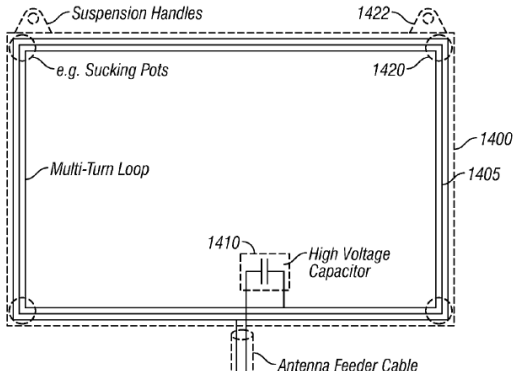
US 8,461,719	Examiner Findings (Office Action of Jun. 28, 2012)
and located a distance D from the source resonator [17b];	size, ... and located a distance D from the source resonator (112) ...”
wherein the source resonator and the second resonator are coupled to exchange energy wirelessly among the source resonator and the second resonator [17c], and	“...wherein the source resonator (112) and the second resonator (155) are coupled to exchange energy wirelessly among the source resonator (112) and the second resonator (155) ...”
wherein $\sqrt{Q_1 Q_2}$ is greater than 100 [17d]; and	“...wherein the square root of the product of the Q-factors is greater than 100 (e.g. the first Q-factor may be 1400 and the second Q-factor may be 300) ...”
wherein at least one of the resonators includes a coil of a plurality of turns of a conducting material connected to a network of capacitors, ... [17e]	“...the source (112) resonator is a coil of at least one turn (113) connected to a first network of capacitors (114) (see paragraphs [0021] and [0034], and Figure 1).

Cook-523 and Lee are therefore the same as or substantially similar to at least Cook-492, which was considered and discussed by the Examiner, at least for elements [17-pre]-[17d], and the network of capacitors of element [17e].

In addition to the network of capacitors, element [17e] requires that at least one of the resonators includes a coil of a plurality of turns of a conducting material that are in a common plane. In ground 2, Petitioner asserts that Cook-554 alone discloses these elements in the Wireless Power Bridge embodiment that includes a transmit antenna unit (source resonator) having a “multi-turn loop (coil)” made from conductive copper wire. Petition at 44 (citing Cook-554 13:12-16 and 4:39-

42, CProv 26, 42, and Allen Decl. 174-175). Petitioner asserts that Cook-554 discloses a Wireless Power Bridge where the transmit and receive antenna units are flat panels, and these include a multi-turn loop with three turns in the same plane. Also, although Petitioner admits that Cook-554's Figure 14 shows the multi-turn loop as non-connecting rectangles, Petitioner asserts that a POSA would have understood that each turn would be connected to the other in a spiral as shown in Figure 4-13 from the Cook Provisional, which Cook-554 incorporates by reference. Petition at 45-46 (and citing Allen Decl. 178).

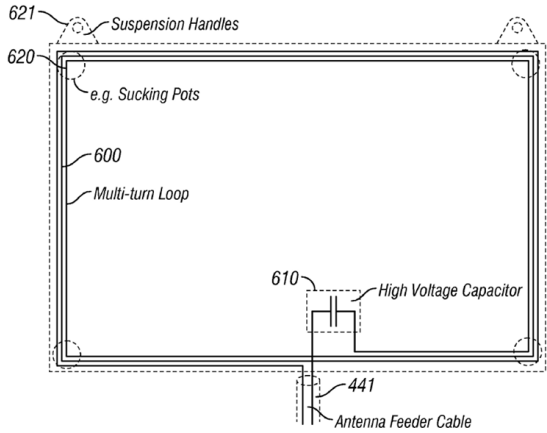
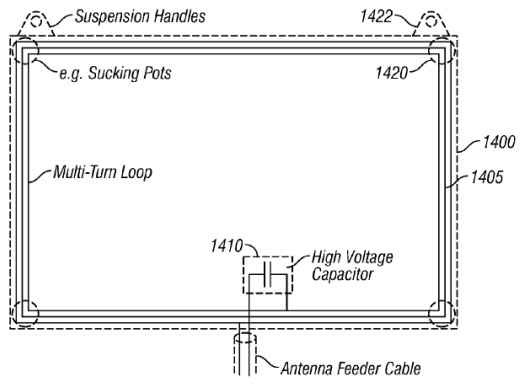
But again, Cook-554 is the same as or substantially similar to Cook-492 (considered and discussed by the Examiner), which also discloses a flat antenna that includes a multi-turn loop. Compare, for example, Figure 14 of Cook-554 with FIG. 7 of Cook-492.

 FIG. 7	 FIG. 14
Cook-492 (evaluated by the Examiner)	Cook-554 (cited by the Petitioner)

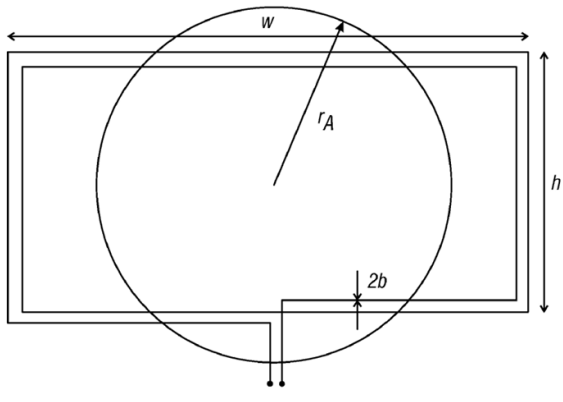
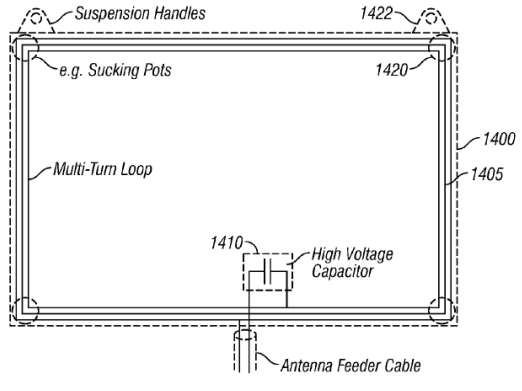
As shown in FIG. 7, Cook-492 discloses a receiver antenna including a plurality of turns of a material 700 mounted on a substrate 705, and including a capacitor 710 attached to the coil material. Cook-492, ¶ [0047].¹⁵

Moreover, Cook-554 is the same as or substantially similar to no less than eight other pre-grant publications that share two common inventors (i.e., Nigel Cook and Hanspeter Widmer) with Cook-554, that also disclose a flat antenna that includes a multi-turn loop, and that were considered by the Examiner. In addition, as shown below by comparison with Cook-554, U.S. Patent Application Publication No. 2009/0127937 to Widmer et al. (“Widmer-937”, attached hereto as Ex. 2003) – which includes Cook as an inventor – is entitled “Wireless Power Bridge,” and which was also considered by the Examiner, discloses a flat-panel antenna with a single or multiple turn inductor. Widmer-937, ¶ [0026]. As shown below, FIG. 6 in Widmer-937 is substantially similar to FIG. 14 of Cook-554. The disclosures are also substantially similar. *See, e.g.*, Widmer-937, ¶ [0051]-[0052]; and Cook-554, 13:30-45.

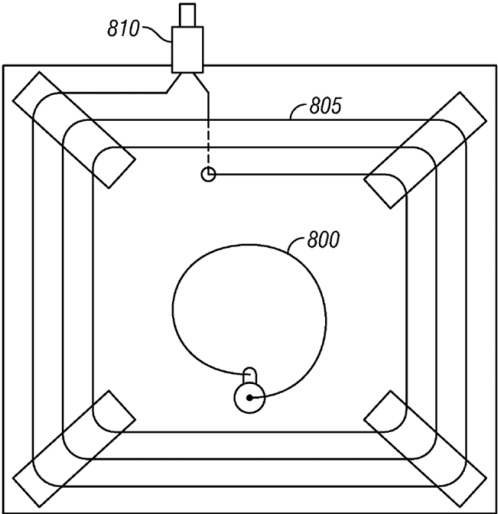
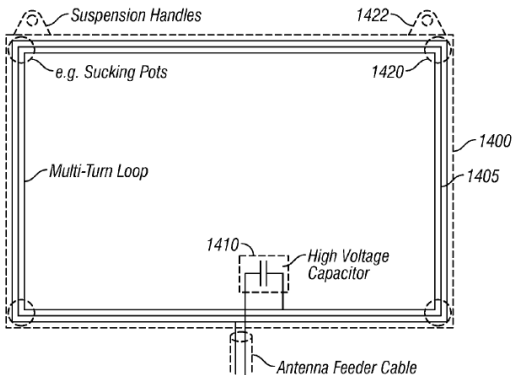
¹⁵ *See also* U.S. Patent Application Publication No. 2009/0051224 to Cook et al. (“Cook-224”), which is an earlier pre-grant publication of the same application as Cook-492, and also was considered by the Examiner.

 FIG. 6	 FIG. 14
Widmer-937 (considered by the Examiner)	Cook-554 (cited by the Petitioner)

Likewise, U.S. Patent Application Publication No. 2009/0079268 to Cook et al. (“Cook-268”, attached hereto as Ex. 2004) teaches a rectangular loop formed of multiple turns. Cook-268, Fig. 6, ¶¶ [0058]-[0060].

 FIG. 6	 FIG. 14
Cook-268 (considered by the Examiner)	Cook-554 (cited by the Petitioner)

And U.S. Patent Application Publication No. 2009/0015075 to Cook et al. (“Cook-075”, attached hereto as Ex. 2005) discloses a flat-panel antenna formed of a multi-turn loop 805 in series with a capacitor 810. Cook-075, Fig. 8, ¶¶ [0061]-[0062]; and *see id.* at Figs. 7 and 9, ¶¶ [0060] and [0063].

 FIG. 8	 FIG. 14
Cook-075 (considered by the Examiner)	Cook-554 (cited by the Petitioner)

U.S. Patent Application Publication No. 2009/0033564 to Cook et al. (“Cook-564”, attached hereto as Ex. 2006) discloses a PDA including a flap cover piece with a multi-turn loop antenna. Cook-564, Fig. 3, ¶ [0014]. U.S. Patent Application Publication No. 2009/0072628 to Cook et al. (“Cook-628”, attached hereto as Ex. 2007) discloses a very small antenna that might fit into a small mobile phone, and that includes a series of concentric loops formed on a circuit

board. Cook-628, Fig. 2, ¶¶ [0043]-[0044]; and *see id.* at Fig. 3 and 5. U.S. Patent Application Publication No. 2010/0117454 to Cook et al. (“Cook-454”, attached hereto as Ex. 2008) discloses an antenna with two turns formed on a printed circuit board. Cook-454, Fig. 5, ¶ [0036]. *See also*, e.g., U.S. Patent Application Publication No. 2010/0210233 to Cook et al. (Ex. 2009), Figs. 13, 14, 18A and 18B; and U.S. Patent Application Publication No. 2009/0134712 to Cook et al. (Ex. 2010), Fig. 6.

The last element of independent claim 17 is the size limitation “wherein a characteristic thickness of the at least one of the resonators is much less than a characteristic size of the at least one of the resonators.” For this feature, in ground 2 Petitioner asserts that Cook-554 alone disclosed this size limitation or it would have been obvious to a POSA. Petition at 48. Petitioner asserts that Cook-554’s Wireless Power Bridge embodiment discloses transmit and receive antenna units that are flat panels including a multi-turn loop. Petitioner admits that Cook-554 does *not* state the dimensions for its Wireless Power Bridge resonators, but asserts that a POSA would have understood their characteristic thickness would have been much less than their characteristic size. Petition at 48 and citing Allen Decl. 182. In ground 4, Petitioner asserts that a “substantially flat” coil disclosed in Lee taught this size limitation element [17f]. Pet. at 79-80 (and citing Allen Decl. 263-264). Like its argument regarding Cook-554, in ground 4 Petitioner also relies on the

understanding of a POSA because Petitioner admits that Lee does *not* disclose any dimensions and it is unclear whether the figures relied upon by Petitioner are even drawn to scale. Petition at 79-80.

As explained above, Cook-492 (evaluated by the Examiner), Cook-224 (an earlier pre-grant publication of Cook-492), and at least eight other pre-grant publications considered by the Examiner also disclose a flat antenna that includes a multi-turn loop. To the extent Petitioner must rely on the knowledge of a POSA for this size limitation element, this is the same as or substantially the same as other non-cited contemporaneous state of the art systems and methods that would have been known to a POSA, all of which were presumptively known to, and therefore considered by, the Examiner. *Duodecad IT Services*, IPR2015-01036, Paper 17 at 17.

In sum, each of the cited references (except Pohjonen) were themselves considered by the Examiner. And for both of the challenged claims (Claims 16 and 17), the Petitioner asserts that a single reference – Cook-554 – by itself makes those claims obvious. But the same or substantially the same disclosures in other references were also found and discussed by the Examiner. In addition, a substantial number of further references with the same or substantially the same disclosures were considered by the Examiner.

Pohjonen, the only reference not explicitly considered by the Examiner, is only relied upon as being within the general knowledge of a POSA (and as evidenced by Pohjonen). In addition to being cumulative, the Federal Circuit and the Board have ruled that such general knowledge of a POSA should also be attributed to what the Examiner presumptively knew, and therefore considered and evaluated, during prosecution. *Id.*

II. *Advanced Bionics* Part 2: Petitioner Failed to Show a Material Error Made by the Examiner.

For grounds 3 and 4, the Petitioner chose not to address Step 2 of the *Advanced Bionics* analysis. Petition at 81.

For grounds 1 and 2, and in a one-sentence argument, Petitioner simply states that “the record is silent regarding the Examiner’s analysis of relevant teachings from Cook-554’s pre-grant publication.” Petition at 81. The Board has made clear that such argument fails to meet the Petitioner’s burden under *Advanced Bionics* Step 2. *Microsoft Corp. v. ThroughPuter, Inc.*, IPR2022-00757, Paper 10 at 21 (PTAB Nov. 1, 2022) (denying institution and rejecting petitioner’s argument that the Office did not take substantive action showing consideration of cited art because “the lack of a rejection itself is not dispositive of whether there was material error.”).¹⁶ Despite its burden to do so, Petitioner did *not* make any

¹⁶ See also *Juniper Networks, Inc. et al. v. Mobile Telecommunications Technologies, LLC*, IPR2017-00642, Paper 31 at 20 (PTAB March 14, 2018)

allegation that the Examiner failed to consider, misapprehended, or overlooked the relevant *teachings* in the Cook-554 publication, or the relevant teachings of the other prior art that is the same as or substantially similar to Cook-554, i.e., the general knowledge of a POSA and Pohjonen, including Joannopoulos and Cook-492.

It follows that Petitioner did not show any material error, and failed to meet its *Advanced Bionics* part two burden. *Eyenovia, Inc. v. Sydnexis*, IPR2022-00963, Paper 7 at 19 (PTAB Nov. 8, 2022) (exercising §325(d) discretion to deny petition where petitioner failed to show material error as no rejection was issued over IPR references while each was before examiner or cumulative); *Google LLC v. Valtrus Innovations Ltd.*, IPR2022-01197, Paper 9 at 23 (PTAB Jan. 3, 2023) (exercising §325(d) discretion to deny petition where petitioner failed to discuss with specificity how examiner erred with respect to reference); *Ivantis, Inc. v. Sight Sciences, Inc.*, IPR2022-01533, Paper 14, at 19 (PTAB Mar. 27, 2023) (exercising §325(d) discretion to deny petition where “Petitioner does not sufficiently demonstrate or explain why a different conclusion should be reached based on the same disclosures in the same references that were cited during prosecution.”).

(denying institution and rejecting Petitioner’s argument that there was material error because the Examiner was silent regarding applying considered prior art in the record to the claims).

CONCLUSION

Both parts of the *Advanced Bionics* analysis confirm the Board should exercise its discretion under § 325(d) to deny institution.

Dated: November 24, 2023

Respectfully submitted,

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CERTIFICATION UNDER 37 CFR § 42.24

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing *Patent Owner's Preliminary Response to Petition* totals 4,959, which is less than the 14,000 allowed under 37 CFR § 42.24(b)(1).

Dated: November 24, 2023

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CERTIFICATE OF SERVICE

It is certified that a copy of the *Patent Owner's Preliminary Response to Petition* has been served on Petitioner as provided in 37 C.F.R. § 42.6(e) via electronic mail transmission addressed to the persons at the address of record as follows:

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