

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

WIPQTUS INC.,
Patent Owner.

IPR2024-00023
Patent 10,038,339 B2

Before KARL D. EASTHOM, STEVEN M. AMUNDSON, and
RUSSELL E. CASS, *Administrative Patent Judges*.

AMUNDSON, *Administrative Patent Judge*.

PRELIMINARY GUIDANCE
PATENT OWNER'S MOTION TO AMEND

I. INTRODUCTION

In March 2024, we instituted an *inter partes* review of claims 1–3, 5, 7, and 9 in U.S. Patent No. 10,038,339 B2 (Exhibit 1001, “the ’339 patent”). Paper 7 (“Inst. Dec.”). In June 2024, WiPQTUS Inc. (“Patent Owner”) filed a Contingent Motion to Amend. Paper 11 (“Motion” or “Mot.”). In the Motion, Patent Owner requests that the Board substitute proposed claims 21–32 for current claims 1–12, respectively, if the Board determines in a final written decision that originally challenged claims 1–3, 5, 7, and 9 are unpatentable. Mot. 1, 17–24. In August 2024, Samsung Electronics Co., Ltd. (“Petitioner”) filed an Opposition to Patent Owner’s Motion. Paper 14 (“Opp.”).

In the Motion, Patent Owner also requests that the Board provide preliminary guidance concerning the Motion under the Board’s MTA pilot program. Mot. 1; see Paper 9, 2; Notice Regarding a New Pilot Program Concerning Motion to Amend Practice and Procedures in Trial Proceedings Under the America Invents Act Before the Patent Trial and Appeal Board, 84 Fed. Reg. 9,497 (Mar. 15, 2019) (“Notice”).

After considering Patent Owner’s Motion and Petitioner’s Opposition, we provide this Preliminary Guidance indicating our initial, preliminary, non-binding views on whether Patent Owner has shown a reasonable likelihood that it has satisfied the statutory and regulatory requirements applicable to a motion to amend in an *inter partes* review and only as to whether Petitioner (or the record) establishes a reasonable likelihood that proposed substitute claims 21–23, 25, 27, and 29 are unpatentable. See Notice, 84 Fed. Reg. at 9,497 (explaining that the “preliminary guidance . . . provides preliminary, non-binding guidance from the Board to the parties about” the motion to amend); see also 35 U.S.C. § 316(d) (2018) (statutory requirements for a motion to amend); 37 C.F.R. § 42.121 (2024)

(regulatory requirements and burdens for a motion to amend); *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15 (PTAB Feb. 25, 2019) (precedential) (providing information and guidance regarding motions to amend).

We do not consider proposed substitute claims 24, 26, 28, and 30–32 because these claims correspond to current claims 4, 6, 8, and 10–12, respectively, which Petitioner does not challenge. See 35 U.S.C. § 316(d) (providing that “the patent owner may file 1 motion to amend the patent in 1 or more of the following ways,” i.e., by cancelling “any challenged patent claim” and/or proposing “a reasonable number of substitute claims” for “each challenged claim”).¹

For purposes of this Preliminary Guidance, we focus only on proposed substitute claims 21–23, 25, 27, and 29, and specifically on the amendments to proposed substitute claims 21 and 23. See Notice, 84 Fed. Reg. at 9,497. As for proposed substitute claims 22, 25, 27, and 29, they remain the same as originally challenged claims 2, 5, 7, and 9 but have been amended to depend from proposed substitute claim 21. See Mot. 1, 19, 21–23. Also, we do not address the patentability of the originally challenged claims in this Preliminary Guidance. See Notice, 84 Fed. Reg. at 9,497.

Moreover, in formulating our preliminary views concerning Patent Owner’s Motion and Petitioner’s Opposition, we have not considered the parties’ other substantive papers regarding the merits of Petitioner’s challenges to the originally

¹ Should Patent Owner wish to pursue amendment of claims 4, 6, 8, and 10–12 in the ’339 patent in a reissue or reexamination proceeding, we draw Patent Owner’s attention to the Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding, 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the ’339 patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

challenged claims. We emphasize that the views expressed in this Preliminary Guidance are subject to change upon consideration of the complete record, including any revision to the Motion filed by Patent Owner. Thus, this Preliminary Guidance is not binding on the Board when rendering a final written decision. See Notice, 84 Fed. Reg. at 9,500.

II. PRELIMINARY GUIDANCE

A. STATUTORY AND REGULATORY REQUIREMENTS

Based on the current record and for the reasons explained below, it appears that Patent Owner has not shown a reasonable likelihood that it has satisfied the statutory and regulatory requirements applicable to its Motion.

1. Reasonable Number of Substitute Claims

Does Patent Owner propose a reasonable number of substitute claims? (35 U.S.C. § 316(d)(1)(B))
Yes. Patent Owner proposes no more than one substitute claim for each of the challenged claims, i.e., claims 1–3, 5, 7, and 9. Mot. 4–5, 17–19, 21, 22, 23. Petitioner does not argue otherwise. <i>See generally</i> Opp.
We take this opportunity to reiterate that we do not consider proposed substitute claims 24, 26, 28, and 30–32 because these claims correspond to current claims 4, 6, 8, and 10–12, respectively, that Petitioner does not challenge. <i>See</i> 35 U.S.C. § 316(d) (limiting amendments to challenged claims).

2. Respond to Ground of Unpatentability

Does the Motion respond to a ground of unpatentability involved in the trial? (37 C.F.R. § 42.121(a)(2)(i))
Yes. Patent Owner presents the claim amendments in an attempt to add features to further distinguish the proposed substitute claims as patentable over the references Petitioner relies on to establish unpatentability. In particular, the Institution Decision explained that Petitioner demonstrates a reasonable likelihood of proving that the combined disclosures in

Chatterjee² and Corbridge³ teach the inventions covered by originally challenged claims 1–3, 5, 7, and 9. *See* Inst. Dec. 36–79. In the Motion, Patent Owner explicitly addresses Chatterjee and Corbridge, and the Motion responds to the ground of unpatentability involved in the trial, i.e., unpatentability under § 103 based on Chatterjee and Corbridge. Mot. 9–12. Petitioner does not argue otherwise. *See generally* Opp.

3. Scope of Amended Claims

Does the amendment seek to enlarge the scope of the claims? (35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii))

No. Proposed substitute claims 21 and 23 add limitations vis-à-vis originally challenged claims 1 and 3 and, therefore, do not enlarge the scope of the originally challenged. Mot. 3–4; *see* Mot. App. A 17–19. Proposed substitute claims 22, 25, 27, and 29 merely change the dependency of originally challenged claims 2, 5, 7, and 9. Mot. 4; *see* Mot. App. A, 19, 21–23. Petitioner does not argue otherwise. *See generally* Opp.

4. New Matter

Does the amendment seek to add new subject matter? (35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii))

Yes. Based on the current record, Patent Owner does not appear to have identified adequate written-description support for proposed substitute claims 21–23, 25, 27, and 29. *See Lectrosonics*, Paper 15 at 7 (explaining that “the Board requires that a motion to amend set forth written description support in the originally filed disclosure of the subject patent for each proposed substitute claim, and also set forth support in an earlier filed disclosure for each claim for which benefit of the filing date of the earlier filed disclosure is sought”); *see* 37 C.F.R. § 42.121(b)(1)–(2). For each proposed substitute claim, at least one limitation lacks adequate written-description support in each of the following:

² US 2011/0018356 A1, published January 27, 2011 (based on an application filed December 1, 2009) (Ex. 1003, “Chatterjee”).

³ US 2010/0083012 A1, published April 1, 2010 (based on an application filed June 4, 2009) (Ex. 1004, “Corbridge”).

- (1) the originally filed disclosure of the subject patent, i.e., application no. 15/095,070 filed on April 10, 2016 (Exhibit 1006, 3–76, “the ’070 application”); and
- (2) the earlier filed disclosure of provisional application no. 61/682,312 filed on August 13, 2012 (Exhibit 2004, “the ’312 provisional”).

As an initial procedural matter, a motion to amend must identify written-description support for “each proposed substitute claim as a whole, and not just the features added by the amendment.” *Lectrosonics*, Paper 15 at 8. This requirement “applies equally to independent claims and dependent claims, even if the only amendment to a dependent claim is in the identification of the claim from which it depends.” *Id.* Patent Owner attempts to identify written-description support for only the new features added to proposed substitute claims 21 and 23, not each proposed substitute claim “as a whole.” See Mot. 5–7. And Patent Owner does not identify written-description support for any of proposed substitute claims 22 and 24–32. See *id.*

For the limitation “while configured to receive said power” in proposed substitute claim 21:

Regarding proposed substitute claim 21, i.e., the only independent proposed substitute claim, Patent Owner proposes to amend the following limitation concerning the first circuitry by adding the following underlined language:

said first circuitry, based on an input from said control logic circuit, configured to change, while configured to receive said power, the impedance of said impedance network and topology of said switch network to obtain a modified form of said received power, and apply said modified form of said power to said load device.

Mot. App. A 18. Patent Owner asserts that both the ’312 provisional and the ’339 patent’s specification support this amended limitation. Mot. 6 (citing Ex. 1001, 2:37–46; Ex. 2004 ¶¶ 4, 7, 32). Specifically, Patent Owner points to the following portion of paragraph 4 in the ’312 provisional as support:

In the charging mode, dual mode wireless power receiver configures the first circuitry to receive the power The first circuitry, based on an input from the control logic circuit is configured to change the impedance of the impedance network . . . to obtain a modified form of the received power, and apply the modified form of the power to the load device

Id. (alterations by Patent Owner) (quoting Ex. 2004 ¶ 4) (citing Ex. 2004 ¶¶ 7, 32).

Additionally, Patent Owner points to the following portion of the '339 patent's specification as support:

The dual mode wireless power receiver can operate in a charging mode and a communication mode. In the charging mode, dual mode wireless power receiver configures the first circuitry to receive the power from an external wireless power transmitter. The first circuitry, based on an input from the control logic circuit is configured to change the impedance of the impedance network and topology of the switch network to obtain a modified form of the received power, and apply the modified form of the power to the load device

Mot. 6 (citing Ex. 1001, 2:37–46); *see* 1001, 2:37–46.

Petitioner argues that no disclosure cited by Patent Owner in the '312 provisional or the '339 patent's specification describes “changing impedance or topology ‘while configured to receive power.’” Opp. 1–3 (citing Mot. 6; Ex. 1001, 2:37–46). According to Petitioner, a person of ordinary skill in the art (“POSITA”) “would have understood the paragraph reproduced above to describe changing the impedance of the impedance network and topology of the switch network when transitioning between” the charging mode and communication mode. *Id.* at 2 (emphasis omitted).

Noting that “[t]he '339 patent's ‘impedance network’ can change impedance ‘prior to transmitting power to a secondary wireless power receiver,’” Petitioner argues that a POSITA “would thus have understood that the receiver changes impedance between charging mode and communication mode, not dynamically changing impedance while it is transmitting or receiving power.” Opp. 2–3 (emphases omitted) (quoting Ex. 1001, 9:11–14) (citing Ex. 1001, 9:4–14; Ex. 1015 ¶ 21). Noting that

“the ’339 patent describes that the switched network ‘is configured as an inverter or a rectifier depending upon the mode of operation,’” Petitioner argues that a POSITA “would have understood that the switch network changes its topology (i.e., from a rectifier to an inverter, or the reverse) between the two modes.” *Id.* at 3 (quoting Ex. 1001, 2:60–62) (citing Ex. 1001, 2:39–67; Ex. 1015 ¶ 22). Petitioner asserts that “Patent Owner fails to identify any disclosure in the ’339 patent specification that describes what the receiver does **during** the power receive mode.” *Id.* at 2 (emphasis by Petitioner).

Based on the current record and our current understanding of the language “while configured to receive said power” in proposed substitute claim 21, we agree with Petitioner at this stage of the proceeding that the limitation containing that language lacks written-description support in the portions of the ’312 provisional and the ’339 patent’s specification cited by Patent Owner because those portions do not appear to disclose changing the impedance of the impedance network and the topology of the switch network during the power-receive mode, i.e., while the apparatus remains in that mode. *See* Ex. 1001, 2:37–46; Ex. 2004 ¶¶ 4, 7, 32; *see also* Ex. 1006, 5 (corresponding to Ex. 1001, 2:37–46)).

Thus, based on the current record and our current understanding of the language “while configured to receive said power” in proposed substitute claim 21, it appears that Patent Owner seeks to add new subject matter via that claim language. But we emphasize that our analysis is preliminary, and we invite the parties to address this issue in further briefing and/or in a revised motion to amend.

Because proposed substitute claims 22, 23, 25, 27, and 29 depend from proposed substitute claim 21, we preliminarily determine that Patent Owner has not demonstrated adequate written-description support for those proposed substitute claims in the cited portions of the ’312 provisional and the ’339 patent’s specification. *See* Mot. 5–7.

For the limitation “at least one of said one or more passive components of the impedance network of said first circuitry is (1) chosen a priori with a fixed value and (2) tuned during operation over a range of values” in proposed substitute claim 23:

Regarding proposed substitute claim 23, Patent Owner proposes to amend the claim as follows vis-à-vis claim 3 with underlined text added and bracketed text deleted:

The dual mode wireless power receiver of claim [1] 21, wherein at least one of said one or more passive components of the impedance network of said first circuitry [comprising of elements that are one of] is (1) chosen a priori with a fixed value [values] and (2) tuned during operation over a range of values.

Mot. App. A 19.

Without underlining and brackets, proposed substitute claim 23 reads follows:

The dual mode wireless power receiver of claim 21, wherein at least one of said one or more passive components of the impedance network of said first circuitry is (1) chosen a priori with a fixed value and (2) tuned during operation over a range of values.

Patent Owner asserts that proposed substitute claim 23 “finds support only in the new matter added to the application for” the ’339 patent, i.e., the ’070 application, and not in the parent application for the ’339 patent or the ’312 provisional. *See* Mot. 6–7 (citing Ex. 1001, 22:11–12, 22:55, 24:7–8, 24:46, 25:18, 25:55).

Petitioner argues that “[i]f claim 23 refers to a variable electrical component of the impedance network that has a ‘chosen’ initial value and can further be ‘tuned during operation,’ such a variable component is not disclosed in the ’339 patent.” Opp. 4. Referring to the Institution Decision, Petitioner asserts that Patent Owner’s alleged support actually “describes ‘chosen a priori (fixed)’ and ‘tuned during operation (variable)’ as **alternatives**.” *Id.* (emphasis by Petitioner) (quoting Inst. Dec. 29) (citing Mot. 6). Petitioner also asserts that the ’339 patent’s specification “does not describe choosing the initial capacitance value of a variable capacitor.” *Id.* (citing Inst. Dec. 29; Ex. 1015 ¶ 29).

As an initial procedural matter, we note that Patent Owner improperly cites the ’339 patent’s specification for written-description support instead of the originally filed disclosure of the subject patent, i.e., the ’070 application, as required by *Lectrosonics*. *See* Mot. 6–7 (citing

Ex. 1001, 22:11–12, 22:55, 24:7–8, 24:46, 25:18, 25:55); see *Lectrosonics*, Paper 15 at 7–8. *Lectrosonics* explains that “the Board requires that a motion to amend set forth written description support in the originally filed disclosure of the subject patent for each proposed substitute claim, and also set forth support in an earlier filed disclosure for each claim for which benefit of the filing date of the earlier filed disclosure is sought.” *Lectrosonics*, Paper 15 at 8. *Lectrosonics* also explains that “to meet this requirement, citation should be made to the original disclosure of the application, as filed, rather than to the patent as issued.” *Id.* at 8.

Moreover, based on the current record and our current understanding of the claim’s scope, we tend to agree with Petitioner that proposed substitute claim 23 lacks written-description support in the portions of the ’339 patent’s specification cited by Patent Owner (and the corresponding portions of the ’070 application) because those portions do not appear to disclose a “passive component[] of the impedance network” that is both “(1) chosen a priori with a fixed value” and “(2) tuned during operation over a range of values.” Mot. App. A 19; see Mot. 6–7 (citing Ex. 1001, 22:11–12, 22:55, 24:7–8, 24:46, 25:18, 25:55); Opp. 4.

The ’339 patent’s specification includes the following disclosures relevant to originally challenged claim 3 and proposed substitute claim 23:

- “Capacitors Cs’s and Cp’s capacitance value is chosen a priori (fixed) or tuned during operation (variable) to change the impedance of the impedance network 101” in the Figure 10A embodiment.
- “Capacitors Cs’s and Cp’s capacitance value is chosen a priori (fixed) or tuned during operation (variable) to change the impedance of the impedance network 101” in the Figure 10B embodiment.
- “Capacitors Cp’s capacitance value is chosen a priori (fixed) or tuned during operation (variable) to change the impedance of the impedance network 101” in the Figure 10C embodiment.
- “Capacitors Cs’s and Cp’s capacitance value is chosen a priori (fixed) or tuned during operation (variable) to change the impedance of the impedance network 101” in the Figure 10D embodiment.

- “Capacitors Cs’s capacitance value is chosen a priori (fixed) or tuned during operation (variable) to change the impedance of the impedance network 101” in the Figure 10E embodiment.
- “Capacitors Cs’s capacitance value is chosen a priori (fixed) or tuned during operation (variable) to change the impedance of the impedance network 101” in the Figure 10F embodiment.
- “Capacitors Cs’s and Cp’s capacitance value is chosen a priori (fixed) or tuned during operation (variable) to change the impedance of the impedance network 101” in the Figure 10G embodiment.
- “Capacitors Cs’s capacitance value is chosen a priori (fixed) or tuned during operation (variable) to change the impedance of the impedance network 101” in the Figure 10H embodiment.

Ex. 1001, 21:41–43, 22:11–14, 22:54–57, 23:30–32, 24:7–9, 24:45–48, 25:17–20, 25:54–56.

As noted in the Institution Decision, these portions of the specification “repeatedly explain[] that the one or more capacitors comprising impedance network 101 are ‘chosen a priori (fixed) or tuned during operation (variable) to change the impedance of the impedance network 101’” and thus describe “‘chosen a priori (fixed)’ and ‘tuned during operation (variable)’ as alternatives for the one or more components comprising the claimed ‘impedance network.’” Inst. Dec. 29 (emphases added) (quoting Ex. 1001, 21:39–43, 22:9–14, 22:53–57, 23:28–32, 24:5–9, 24:44–48, 25:15–20, 25:52–56). In contrast to the specification, proposed substitute claim 23 requires a “passive component[] of the impedance network” that is both “(1) chosen a priori with a fixed value” and “(2) tuned during operation over a range of values.” Mot. App. A 19. In short, Patent Owner proposes an amendment requiring that a component satisfy condition (1) and condition (2), whereas the specification appears to support only a requirement that a component satisfy condition (1) or mutually exclusive condition (2). See Ex. 1001, 21:39–43, 22:9–14, 22:53–57, 23:28–32, 24:5–9, 24:44–48, 25:15–20, 25:52–56; see also Ex. 1006, 37–38, 40–43.

Thus, based on the current record and our current understanding of the claim's scope, it appears that Patent Owner seeks to add new subject matter via proposed substitute claim 23. But we emphasize that our analysis is preliminary, and we invite the parties to address this issue in further briefing and/or in a revised motion to amend.

We acknowledge that Patent Owner has not yet had the opportunity to respond to Petitioner's arguments that proposed substitute claims 21 and 23 add new subject matter. Patent Owner will have the opportunity to do so in a Reply to Petitioner's Opposition (or in a revised motion to amend). Further, in a Reply to Petitioner's Opposition (or in a revised motion to amend), we advise Patent Owner to further explain how any cited portions of the earliest filed disclosure support the limitations in the proposed substitute claims.

B. PATENTABILITY

For the reasons explained below, at this stage of the proceeding and based on the current record, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claims 21–23, 25, 27, and 29 are unpatentable.⁴

Does the record establish a reasonable likelihood that the proposed substitute claims are unpatentable?

Yes. The record appears to establish a reasonable likelihood that (i) proposed substitute claims 21–23, 25, 27, and 29 lack written-description support under 35 U.S.C. § 112(a) (or pre-AIA 35 U.S.C. § 112 ¶ 1); (ii) proposed substitute claim 23 is indefinite under 35 U.S.C. § 112(b) (or pre-AIA 35 U.S.C. § 112 ¶ 2); and (iii) proposed substitute claims 21, 22, 25, 27, and 29 would have been obvious under 35 U.S.C. § 103 based on at least one ground advanced by Petitioner.

⁴ In this Preliminary Guidance, we express no view on the patentability of originally challenged claims 1–3, 5, 7, and 9. Instead, we focus on limitations added to originally challenged claims 1 and 3 in proposed substitute claims 21 and 23.

I. Lack of Written-Description Support

Yes. For the reasons discussed above, we preliminarily determine that Patent Owner fails to meet its burden of showing that proposed substitute claims 21–23, 25, 27, and 29 do not add new subject matter. For the reasons discussed above, Patent Owner does not appear to have identified adequate written-description support for limitations recited in proposed substitute claims 21 and 23 in the ’312 provisional or the ’070 application (or the ’339 patent’s specification). Further, for the reasons discussed above, Petitioner has shown a reasonable likelihood that proposed substitute claims 21–23, 25, 27, and 29 are unpatentable under § 112(a) (or pre-AIA § 112 ¶ 1). See Opp. 1–3.

Specifically, for the reasons discussed above for proposed substitute claim 21, we tend to agree with Petitioner that the newly added claim language “while configured to receive said power” appears to lack written-description support. See Opp. 1–4.

Additionally, because proposed substitute claims 22, 23, 25, 27, and 29 depend from proposed substitute claim 21, we preliminarily determine that Petitioner has shown a reasonable likelihood that these dependent claims are unpatentable under § 112(a) (or pre-AIA § 112 ¶ 1). See Opp. 3.

Further, for the reasons discussed above for proposed substitute claim 23, we tend to agree with Petitioner that the limitation “at least one of said one or more passive components . . . is (1) chosen a priori with a fixed value and (2) tuned during operation over a range of values” recited in the claim appears to lack written-description support in the cited portions of the ’339 patent’s specification (and the corresponding portions of the ’070 application). See Opp. 3–4.

II. Indefiniteness

Yes for proposed substitute claim 23 based on the limitation “at least one of said one or more passive components . . . is (1) chosen a priori with a fixed value and (2) tuned during operation over a range of values” recited in the claim.

Petitioner asserts that proposed substitute claim 23 is indefinite because “the requirement of the claim is unclear and illogical” and the claim “contains an impossibility.” Opp. 5 (citing *Trustees of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1367 (Fed. Cir. 2016)). According to Petitioner, “if the proposed claim amendment requires a ‘passive component’ ‘with a fixed value,’ it is unclear how such a fixed value passive component could be ‘tuned during operation’ as the proposed amended claims require.” *Id.* at 3–4 (emphases

omitted). Petitioner asserts that “[i]t is not possible to have a ‘fixed value’ ‘passive component’ that can be ‘tuned over a range of values,’ thus requiring a component to be both fixed and variable at the same time.” *Id.* at 5. As support, Petitioner quotes the testimony of Patent Owner’s declarant, Dr. Direen, who stated that “you can’t tune fixed passive elements.” *Id.* at 4 (emphasis omitted) (quoting Ex. 1019, 105:3–4).

For purposes of this Preliminary Guidance and based on the current record, Petitioner’s argument seems persuasive. As discussed above in our analysis concerning new subject matter, we tend to agree with Petitioner that the portions of the ’339 patent’s specification cited by Patent Owner (and the corresponding portions of the ’070 application) do not appear to disclose a “passive component[] of the impedance network” that is both “(1) chosen a priori with a fixed value” and “(2) tuned during operation over a range of values.” *See* Mot. 6–7 (citing Ex. 1001, 22:11–12, 22:55, 24:7–8, 24:46, 25:18, 25:55); Opp. 4. Instead, as explained in the Institution Decision, the cited portions describe “‘chosen a priori (fixed)’ and ‘tuned during operation (variable)’ as alternatives for the one or more components comprising the claimed ‘impedance network.’” Inst. Dec. 29 (quoting Ex. 1001, 21:39–43, 22:9–14, 22:53–57, 23:28–32, 24:5–9, 24:44–48, 25:15–20, 25:52–56). We also tend to agree with Petitioner that, as a technical matter, a “passive component” cannot be both “(1) chosen a priori with a fixed value” and “(2) tuned during operation over a range of values,” i.e., both fixed and variable at the same time, as required by proposed substitute claim 23, thus rendering the claim ambiguous. *See* Ex. 1015 ¶ 43; Ex. 1019, 105:3–4.

The patent statute “require[s] that a patent’s claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). The definiteness requirement “strikes a ‘delicate balance’ between ‘the inherent limitations of language’ and providing ‘clear notice of what is claimed.’” *Sonix Tech. Co. v. Publ’ns Int’l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017) (quoting *Nautilus*, 572 U.S. at 909). Further, the Office should allow only claims that are “precise, clear, correct, and unambiguous.” *In re Zletz*, 893 F.2d 319, 322 (Fed. Cir. 1989).

For purposes of this Preliminary Guidance and based on the current record, Petitioner appears to have shown a reasonable likelihood that proposed substitute claim 23 is indefinite under § 112(b) (or pre-AIA § 112 ¶ 2). *See* Opp. 3–5; *Nautilus*, 572 U.S. at 910. But we emphasize that our analysis is preliminary,

and we invite the parties to address this issue in further briefing and/or in a revised motion to amend.

No for proposed substitute claim 21 because the claim language, viewed in light of the specification and prosecution history, informs those skilled in the art about the scope of the invention with reasonable certainty.

Petitioner asserts that the following limitation in proposed substitute claim 21 “is indefinite because its meaning is not reasonably certain”: “an impedance network comprised of two or more electrical components from the list (i) one or more passive components, (ii) one or more active components, or (iii) one or more switches.” Opp. 5; see Mot. App. A 17. As support, Petitioner quotes the testimony of Patent Owner’s declarant, Dr. Direen, who stated that “the ‘impedance network’ is an entity consisting of two or more components, one or more of which must be passive components, and additional components used for the purpose of varying impedance.” Opp. 6 (emphasis omitted) (quoting Ex. 2003 ¶ 100).

Petitioner asserts that “Dr. Direen’s view of the impedance network is inconsistent with the plain language of” this limitation requiring “two components from three categories (i), (ii), or (iii), without specifying whether any category is optional or mandatory.” Opp. 6. Petitioner further asserts that it is unclear what Patent Owner means by “passive components,” “active components,” and “switches” in view of (1) Dr. Direen’s allegedly conflicting testimony about “passive components” and (2) the ’339 patent’s description of transistors as “active components” rather than “switches.” *Id.* at 6–7 (citing Ex. 1001, 9:7–11; Ex. 1019, 71:9–17, 104:15–16).

For purposes of this Preliminary Guidance and based on the current record, we disagree with Petitioner’s argument. As Patent Owner points out, the ’339 patent describes an impedance network’s constituents as follows:

The impedance network 101 comprises one or more of passive electronic components, for example, a resistor, a capacitor, a magnetic device, a transducer, transformer etc.; active electronic components, for example, a diode, a transistor such as a metal oxide semiconductor field effect transistor (MOSFET), a bipolar transistor, etc., operational amplifiers, an optoelectronic device, etc., and electronic switches. These electronic components in combination are utilized to vary impedance of the dual mode

wireless power receiver 100 prior to transmitting power to a secondary wireless power receiver 300.

Ex. 1001, 9:4–14; *see also* Mot. 5–6 (citing Ex. 1001, 9:4–14). In view of the '339 patent's description of an impedance network's constituents, the limitation "an impedance network comprised of two or more electrical components from the list (i) one or more passive components, (ii) one or more active components, or (iii) one or more switches" informs those skilled in the art about the scope of the invention with reasonable certainty. *See Nautilus*, 572 U.S. at 910. Further, even if, as Petitioner suggests, there are no precise boundaries between "passive components," "active components," and "switches," that does not matter because proposed substitute claim 21 encompasses all of those things.

Additionally, Petitioner asserts that proposed substitute claim 21 "is indefinite because it is unclear what it means for the first circuitry to be 'configured to change, while configured to receive said power, . . . topology of said switch network to obtain a modified form of said received power, and apply said modified form of said power to said load device.'" Opp. 7 (alteration by Petitioner) (emphases by Petitioner). Noting that "Patent Owner does not provide a construction as to the 'change . . . topology' term," Petitioner argues that "it is unclear whether 'change topology . . . of said switch network' means (1) changing from an inverter to a rectifier (or the opposite), or (2) merely changing the connected/disconnected states of the switches." *Id.*

Petitioner asserts that a POSITA may interpret "change topology . . . of said switch network" as "changing from an inverter to a rectifier (or the opposite)" because that interpretation comports with the support Patent Owner identifies in the Motion. Opp. 7 (citing Mot. 6; Ex. 1001, 2:37–46). As for the other possible interpretation, Petitioner quotes Patent Owner's infringement contentions in a related civil action as follows: "the switch network is constantly changing its topology while operating in . . . rectification mode" because "the MOSFET switches of the 'switch network' . . . change their configuration at a rapid rate" such that "in one instance two of the MOSFETs are on while the other two are off and at another instant the MOSFETs that were on turn off and the ones that were off turn on." *Id.* at 8 (alterations by Petitioner) (emphases omitted) (quoting Ex. 1016, 34–35, 37).

Petitioner argues that given (1) "the multiple possible interpretations" and (2) Patent Owner's failure "to present any claim construction on the 'change . . . topology' limitation," proposed substitute claim 21 is indefinite. Opp. 8–9.

For purposes of this Preliminary Guidance and based on the current record, we disagree with Petitioner’s argument. Based on the current record, the claim language “change . . . topology of said switch network” appears to encompass changing the connected/disconnected states of the switches and changing from an inverter to a rectifier (or the opposite). That proposed substitute claim 21 encompasses both types of switch changes indicates claim breadth. “[B]readth is not to be equated with indefiniteness.” *In re Miller*, 441 F.2d 689, 693 (CCPA 1971).

Thus, at this stage in the proceeding and based on the current record, Petitioner does not appear to have shown a reasonable likelihood that proposed substitute claim 21 is indefinite under § 112(b) (or pre-AIA § 112 ¶ 2). But we emphasize that our analysis is preliminary, and we invite the parties to address this issue in further briefing and/or in a revised motion to amend.

III. Obviousness

Yes for proposed substitute claims 21, 22, 25, 27, and 29.

Petitioner asserts that proposed substitute claims 21–23, 25, 27, and 29 are unpatentable under 35 U.S.C. § 103 as obvious based on the following grounds:

- Ground 1: proposed substitute claims 21–23, 25, 27, and 29 would have been obvious over Chatterjee, Corbridge, the newly cited Cook publication,⁵ and a POSITA’s knowledge; and
- Ground 2: proposed substitute claims 21–23, 25, 27, and 29 would have been obvious over Chatterjee, Corbridge, the newly cited Lee publication,⁶ and a POSITA’s knowledge.

Opp. 9–25.

For purposes of this Preliminary Guidance and based on the current record, it appears that Petitioner has established a reasonable likelihood that proposed substitute claims 21, 22, 25, 27, and 29 are unpatentable under § 103 as obvious based on at least one ground. Regarding proposed substitute claim 23, due to a reasonable likelihood that the claim “contains an impossibility,” we do not reach

⁵ US 2009/0243397 A1, published October 1, 2009 (based on an application filed March 4, 2009) (Ex. 1017, “Cook”).

⁶ US 2013/0062959 A1, published March 14, 2013 (based on an application filed May 4, 2012) (Ex. 1018, “Lee”).

a preliminary decision as to whether Petitioner has established a reasonable likelihood that the claim would have been obvious.

**Ground 1: Claims 21–23, 25, 27, and 29: Obviousness
over Chatterjee, Corbridge, Cook, and POSITA’s Knowledge**

For proposed substitute claim 21:

Yes. Proposed substitute claim 21 corresponds to originally challenged claim 1 with changes to two limitations as shown by the following underlined text added to the limitations:

- an impedance network comprised of two or more electrical components from the list (i) one or more passive components, (ii) one or more active components, or (iii) one or more switches;
- said first circuitry, based on an input from said control logic circuit, configured to change, while configured to receive said power, the impedance of said impedance network and topology of said switch network to obtain a modified form of said received power, and apply said modified form of said power to said load device.

Mot. App. A 17–18 (the “amended limitations”).

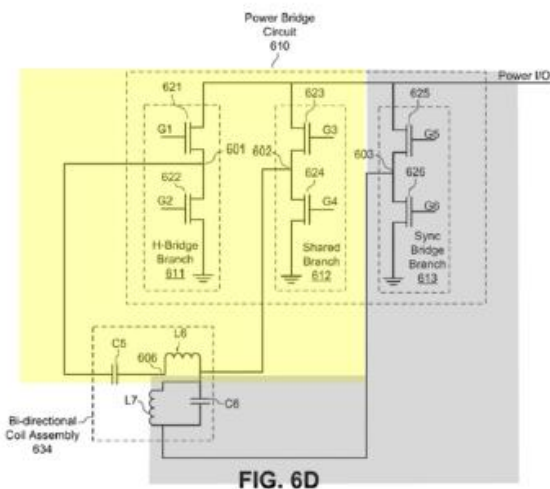
Patent Owner asserts that the combined disclosures in Chatterjee and Corbridge do not teach “an impedance network comprised of two or more electrical components from the list (i) one or more passive components, (ii) one or more active components, or (iii) one or more switches.” Mot. 9 (citing Paper 10 (Patent Owner’s Response), 50–63). Patent Owner also asserts that “Chatterjee standing alone or in combination with Corbridge does not show the claim element of substitute claim 21 ‘first circuitry, based on an input from said control logic circuit, configured to change, while configured to receive said power, the impedance of said impedance network and topology of said switch network to obtain a modified form of said received power, and apply said modified form of said power to said load device.’” *Id.* at 10 (citing Paper 10 (Patent Owner’s Response), 55–63).

In the Opposition, Petitioner contends that Chatterjee in view of Corbridge, Cook, and a POSITA’s knowledge renders the amended limitations obvious. Opp. 13–18. Specifically, Petitioner asserts that Chatterjee’s Figure 6D “teaches a first circuitry comprising at least the

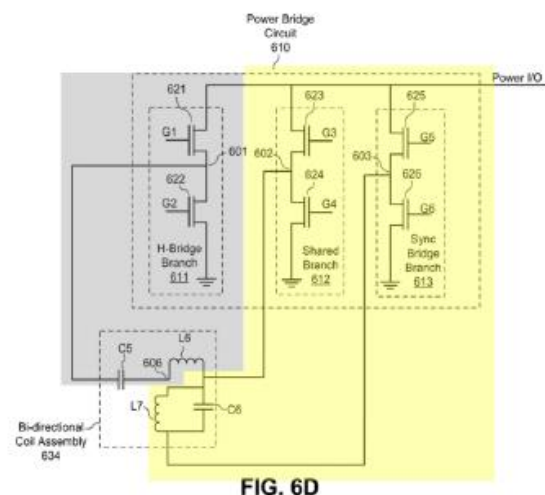
‘impedance network’ (C5 and C6) and the ‘switch network’ (power bridge circuit 610).” *Id.* at 16–17 (citing Ex. 1003 ¶ 72, Fig. 6D). Using two side-by-side annotated and highlighted versions of Chatterjee’s Figure 6D (reproduced below), Petitioner explains that Chatterjee discloses:

- (1) the power transmit mode with H-bridge branch 611 turned on, sync bridge branch 613 turned off, and the current path through the series connection of capacitor C5 and inductive coil L6; and
- (2) the power receive mode with H-bridge branch 611 turned off, sync bridge branch 613 turned on, and the current path through the parallel connection of capacitor C6 and inductive coil L7.

Id. at 13–14 (citing Ex. 1003 ¶ 65).



Power Transmit Mode



Power Receive Mode

Figure 6D depicts a circuit-level embodiment of power bridge circuit 411 and bi-directional coil assembly 412. Ex. 1003 ¶¶ 14, 72, Fig. 6D. As shown above on the left, Figure 6D includes the annotation “Power Transmit Mode” and has yellow highlighting over H-bridge branch 611, shared branch 612, and the series connection of capacitor C5 and inductive coil L6 and gray highlighting over sync bridge branch 613 and the parallel connection of capacitor C6 and inductive coil L7. *See* Opp. 14. As shown above on the right, Figure 6D includes the annotation “Power Receive Mode” and has yellow highlighting over shared branch 612, sync bridge branch 613, and the parallel connection of capacitor C6 and inductive

coil L7 and gray highlighting over H-bridge branch 611 and the series connection of capacitor C5 and inductive coil L6. *See id.*

Petitioner asserts that “in the power receive mode, [Chatterjee’s] processor 413 sends signals G3-G6 to operate the shared branch 612 and sync bridge branch 613 so that the switches 623-626 operate synchronously as a rectifier—i.e., each switch alternates between the connected and disconnected states to change the topology of the power bridge circuit.”

Opp. 17 (Ex. 1003 ¶¶ 4, 65, Fig. 2; Ex. 1015 ¶ 75). Petitioner asserts that “Chatterjee therefore discloses ‘said first circuit[r]y, based on an input from said control logic circuit, configured to change . . . topology of said switch network.’” *Id.* (alteration by Petitioner) (emphases omitted).

Further, Petitioner asserts that a POSITA “would also have understood that changing topology takes place ‘while [the first circuitry is] configured to receive said power’ because switches 623-626 continually . . . switch on and off while in the power receive mode.” Opp. 17 (first alteration by Petitioner) (emphasis omitted) (citing Ex. 1003 ¶ 4, Fig. 2; Ex. 1015 ¶ 76). Petitioner also asserts that a POSITA “would further have understood that Chatterjee’s first circuitry is configured to change topology of said switch network ‘to obtain a modified form of said received power, and apply said modified form of said power to said load device’ because switches 623-626 operating as a rectifier tum[] the received AC power into DC power, thus obtaining a ‘modified form’ of the received power, and provides that modified form of said power to a load device such as a rechargeable battery.” *Id.* (emphasis omitted) (citing Ex. 1003 ¶ 37; Ex. 1015 ¶ 77).

Petitioner concedes that “Chatterjee does not explicitly disclose ‘said first circuitry, based on an input from said control logic circuit, configured to change, while configured to receive said power, the impedance of said impedance network’ as required by proposed substitute claim 21. Opp. 17–18 (emphasis omitted). But Petitioner contends that Cook discloses this limitation. *Id.* at 18.

Specifically, Petitioner asserts that Cook discloses an “impedance network” comprising “two or more electrical components from the list of (i) one or more passive components . . . and (iii) one or more switches” according to proposed substitute claim 21 because Cook’s resonant antenna includes a “capacitor” comprising a capacitor bank and “electronic or mechanical switches (RF relays).” Opp. 14 (citing Ex. 1017 ¶¶ 104–107, 239, Fig. 16). To support this assertion, Petitioner provides an annotated version of Cook’s Figure 16 as reproduced below:

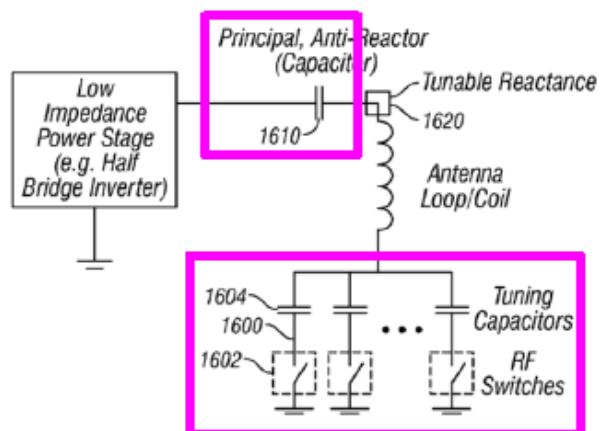


Figure 16 illustrates an arrangement for antenna tuning including principal capacitor 1610 and capacitor bank 1600 with “switching elements 1602 to add or remove individual capacitors 1604.” Ex. 1017 ¶¶ 34, 240, Fig. 16. The above annotated version of Figure 16 includes a pink box around principal capacitor 1610 and another pink box around capacitor bank 1600 with switching elements 1602 and capacitors 1604. See Opp. 15.

Petitioner further asserts that Cook “teaches ‘tuning the antenna’s resonance frequency’ to compensate for ‘variation of load impedance,’ . . . such as by capacitive tuning” that can use “a capacitor bank, in a series or parallel arrangement with RF switches that may be opened or closed to adjust the effective capacitance.” Opp. 15 (quoting Ex. 1017 ¶¶ 96, 99, 239). Petitioner also asserts that Cook teaches “a control system 160 that ‘handles . . . antenna tuning control’ and ‘power and efficiency control.’” *Id.* (alteration by Petitioner) (quoting Ex. 1017 ¶¶ 76–78).

Additionally, Petitioner asserts that a POSITA “would have understood that the controlling of capacitive turning [sic] takes place ‘while configured to receive power’ because Cook teaches that tuning is ‘automatically executed by the receiver’s control system’ including using, for example, a ‘fractional tuning range in the order of +/- 10%.’” Opp. 15 (emphasis omitted) (citing Ex. 1015 ¶ 82; Ex. 1017 ¶¶ 101–102). Therefore, according to Petitioner, Cook discloses “based on an input from said control logic circuit, configured to change, while configured to receive said power, the impedance of said impedance network” according to proposed substitute claim 21. *Id.* at 15–16 (emphasis omitted).

Regarding a reason to combine Cook’s teachings with Chatterjee’s teachings, Petitioner asserts that a POSITA “would have been motivated to improve Chatterjee’s inductive signal interface such that, in [the] power receive mode, its impedance network—i.e., the capacitors connected to the coil—can be tuned

while receiving power to improve performance, as taught by Cook.” Opp. 11. According to Petitioner, a POSITA “would have understood that Cook’s wireless receiver with ‘antenna tuning control’ provides the benefit of improving antenna resonance matching and ‘maximiz[ing] receiver efficiency.’” *Id.* (alteration by Petitioner) (citing Ex. 1017 ¶¶ 119–124, 133).

Petitioner asserts that “[s]uch a combination would have involved ‘the mere application of a known technique’—Cook’s capacitive tuning using a capacitor bank and switches—‘to a piece of prior art’—Chatterjee’s inductive signal interface 410—that is ‘ready for the improvement.’” Opp. 11 (citing Ex. 1015 ¶¶ 54–56; Ex. 1017 ¶¶ 104–107). Petitioner also asserts that a POSITA “would have had a reasonable expectation of success in applying Cook’s capacitive tuning technique in Chatterjee’s inductive signal interface.” *Id.* at 11–12 (citing Ex. 1015 ¶ 57).

For purposes of this Preliminary Guidance and based on the current record, Petitioner presents sufficient evidence to show a reasonable likelihood that the combined teachings of Chatterjee and Cook account for the amended limitations in proposed substitute claim 21. *See* Ex. 1003 ¶¶ 4, 37, 63, 65, 72, Fig. 6D; Ex. 1017 ¶¶ 76–78, 91, 96, 99, 101–107, 239, Figs. 2, 16; Opp. 12–18. Also, based on the current record, Petitioner’s rationale for the combination, applying Cook’s capacitive-tuning technique in Chatterjee’s inductive signal interface, appears reasonable because the proposed combination appears to improve Chatterjee’s inductive signal interface such that, in the power receive mode, its impedance network—i.e., the capacitors connected to the coil—can be tuned while receiving power and thus improve performance. *See* Opp. 10–12.

Except for the amended limitations discussed above, proposed substitute claim 21 corresponds to originally challenged claim 1. *See* Mot. App. A 17–19; Ex. 1001, 27:2–43. As explained in the Institution Decision, Petitioner demonstrates a reasonable likelihood of proving that the combined disclosures in Chatterjee and Corbridge teach the invention covered by originally challenged claim 1. Inst. Dec. 47–79.

Thus, at this stage of the proceeding and based on the current record, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claim 21 is unpatentable under § 103 as obvious over the combination of Chatterjee, Corbridge, Cook, and a POSITA’s knowledge.

For proposed substitute claims 22, 25, 27, and 29:

Yes. Proposed substitute claims 22, 25, 27, and 29 merely change the dependency of originally challenged claims 2, 5, 7, and 9, respectively. Mot. App. A 19, 21–23. For these dependent claims, Petitioner relies on the challenge based on Chatterjee and Corbridge as set forth in the Petition. Opp. 18. For purposes of this Preliminary Guidance and based on the current record, Petitioner appears to have shown a reasonable likelihood that proposed substitute claims 22, 25, 27, and 29 are unpatentable for the reasons discussed in the Institution Decision for originally challenged claims 2, 5, 7, and 9 (Inst. Dec. 79) as well as for the reasons discussed above for proposed substitute claim 21.

For proposed substitute claim 23:

As for proposed substitute claim 23, Petitioner contends that Cook’s capacitor bank containing multiple capacitors and multiple switches meets the limitation “wherein at least one of said one or more passive components of the impedance network of said first circuitry is (1) chosen a priori with a fixed value and (2) tuned during operation over a range of values.” Opp. 18 (citing Ex. 1017, Fig. 16). Petitioner also contends that “Dr. Direen testified that this limitation can be met by ‘a capacitor and a switch.’” *Id.* (quoting Ex. 1019, 105:5–12) (citing Ex. 1015 ¶ 49).

As discussed above, however, based on the current record Petitioner has established a reasonable likelihood that proposed substitute claim 23 “contains an impossibility.” See Opp. 3–5; Ex. 1015 ¶ 43; Ex. 1019, 105:3–4. If the Board “cannot ascertain the scope of a claim with reasonable certainty for purposes of assessing patentability” and “if the indefiniteness issue affects only certain claims,” the Board should “conclude that it could not reach a decision on the merits with respect to whether petitioner had established the unpatentability of those claims under sections 102 or 103.” *Samsung Elecs. Am., Inc. v. Prisua Eng’g Corp.*, 948 F.3d 1342, 1353 (Fed. Cir. 2020); see *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970); *In re Steele*, 305 F.2d 859, 862 (CCPA 1962). Accordingly, we do not reach a decision whether Petitioner has established a reasonable likelihood that proposed substitute claim 23 is unpatentable under § 103 as obvious over the combination of Chatterjee, Corbridge, Cook, and a POSITA’s knowledge.

**Ground 2: Claims 21–23, 25, 27, and 29: Obviousness
over Chatterjee, Corbridge, Lee, and POSITA’s Knowledge**

For proposed substitute claim 21:

Yes. As discussed above for Ground 1, Petitioner asserts that Chatterjee discloses the following limitations in proposed substitute claim 21: “said first circuitry, based on an input from said control logic circuit, configured to change, while configured to receive said power, . . . topology of said switch network to obtain a modified form of said received power, and apply said modified form of said power to said load device” and “said first circuitry, based on an input from said control logic circuit, configured to change . . . impedance of said impedance network.” Opp. 24–25; *see id.* at 16–17.

Petitioner concedes that “Chatterjee does not explicitly disclose ‘said first circuitry, based on an input from said control logic circuit, configured to change, while configured to receive said power, the impedance of said impedance network’” as required by proposed substitute claim 21. Opp. 25 (emphasis omitted). But Petitioner contends that Lee discloses this limitation. *Id.*

Specifically, Petitioner asserts that Lee discloses wireless receiver 608 with receive coil 618 and receive circuitry 610 including RX impedance adjustment and switching circuitry 612, processing signaling controller 616, RF-DC converter 620, and charging device 650. Opp. 21–22 (citing Ex. 1018 ¶¶ 53–64, Fig. 6). Petitioner asserts that RX impedance adjustment and switching circuitry 612 “may be configured to adjust an impedance of the receive circuitry 610 based on an impedance of the receive coil 618 to improve efficiency during power transfer.” *Id.* at 22 (citing Ex. 1018 ¶ 57).

Referencing Lee’s Figure 6, Petitioner asserts that RX impedance adjustment and switching circuitry 612 “comprises at least a switch and two capacitors, and thus teaches the ‘impedance network’ of” proposed substitute claim 21. Opp. 22 (citing Ex. 1018, Fig. 6). Petitioner also asserts that a POSITA “would have understood that the Lee’s processor 616 can control the RX impedance adjustment and switching circuitry to change its impedance” and “such impedance changing happens while the receiver is configured to receive power.” *Id.* at 22–23 (emphasis omitted) (citing Ex. 1015 ¶ 127; Ex. 1018 ¶ 64). Therefore, according to Petitioner, Lee discloses “based on an input from said control logic circuit, configured to change, while configured to receive said

power, the impedance of said impedance network” according to proposed substitute claim 21. *Id.* at 24 (emphasis omitted).

Additionally, Petitioner asserts that a POSITA “would have found it obvious to modify Chatterjee” to (1) “implement Chatterjee’s coil assembly as one that can be tuned” and (2) “add Lee’s RX impedance adjustment and switching circuitry” between Chatterjee’s coil assembly and power bridge circuit to “improve wireless power transmission efficiency.” Opp. 24. To support this assertion, Petitioner provides a modified and annotated version of Chatterjee’s Figure 4 with Lee’s RX impedance adjustment and switching circuitry 612 included in Chatterjee’s inductive signal interface as reproduced below:

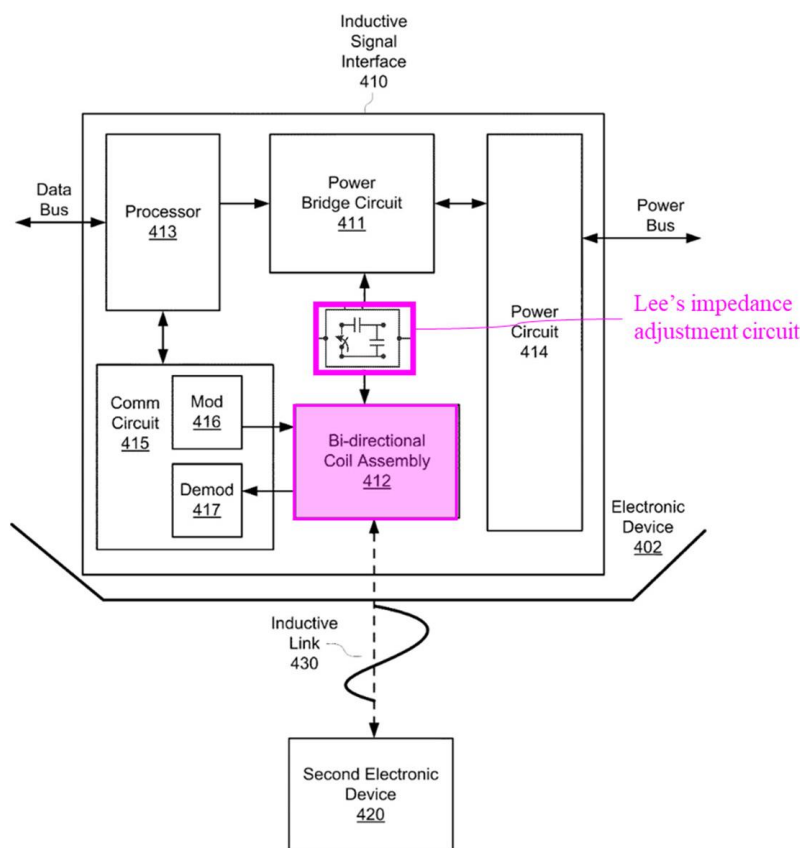


Figure 4 depicts an electronic device with an inductive signal interface inductively linked to another electronic device with a similar inductive signal interface. Ex. 1003 ¶¶ 9, 41, 51, Fig. 4. The above modified and annotated version of Figure 4 includes (1) Lee’s RX impedance adjustment and switching circuitry 612 (from Lee’s Figure 6) added between Chatterjee’s power bridge circuit 411 and bi-directional coil assembly 412, (2) the pink annotation “Lee’s impedance adjustment circuit” identifying RX impedance adjustment and

switching circuitry 612, and (3) pink highlighting over bi-directional coil assembly 412. *See* Opp. 22.

Regarding a reason to combine Lee’s teachings with Chatterjee’s teachings, Petitioner asserts that a POSITA “would have been motivated to improve Chatterjee’s inductive signal interface to implement its coil assembly as a tunable one and include an impedance adjustment circuitry.” Opp. 19.

According to Petitioner, a POSITA would have understood that (1) “a tunable coil assembly improves power transmission efficiency by matching resonant frequencies” and (2) “adjusting the ‘effective impedance of the receiver’ provides the additional benefit of minimizing signal reflection and maximizing the amount of power delivered to the receiver.” *Id.* at 19–20 (citing Ex. 1015 ¶ 101; Ex. 1018 ¶¶ 28, 34–36, 55, 57).

Petitioner asserts that “[s]uch a modification would have required applying Lee’s known tuning and impedance adjustment techniques in Chatterjee’s inductive signal interface in the same way as it functions in Lee.” Opp. 20 (citing Ex. 1015 ¶¶ 102–103). Petitioner also asserts that a POSITA “would have had a reasonable expectation of success in applying Lee’s resonance tuning and impedance adjustment technique in Chatterjee’s inductive signal interface.” *Id.* (citing Ex. 1015 ¶ 104).

For purposes of this Preliminary Guidance and based on the current record, Petitioner presents sufficient evidence to show a reasonable likelihood that the combined teachings of Chatterjee and Lee account for the amended limitations in proposed substitute claim 21. *See* Ex. 1003 ¶¶ 4, 37, 63, 65, 72, Fig. 6D; Ex. 1018 ¶¶ 34–36, 46, 53–64, Fig. 6; Opp. 21–25. Also, based on the current record, Petitioner’s rationale for the combination, applying Lee’s resonance tuning and impedance adjustment technique in Chatterjee’s inductive signal interface, appears reasonable because the proposed combination appears to improve Chatterjee’s inductive signal interface to implement its coil assembly as a tunable one with impedance adjustment and switching circuitry. *See* Opp. 19–21.

Except for the amended limitations discussed above, proposed substitute claim 21 corresponds to originally challenged claim 1. *See* Mot. App. A 17–19; Ex. 1001, 27:2–43. As explained in the Institution Decision, Petitioner demonstrates a reasonable likelihood of proving that the combined disclosures in Chatterjee and Corbridge teach the invention covered by originally challenged claim 1. Inst. Dec. 47–79.

Thus, at this stage of the proceeding and based on the current record, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claim 21 is unpatentable under § 103 as obvious over the combination of Chatterjee, Corbridge, Lee, and a POSITA's knowledge.

For proposed substitute claims 22, 25, 27, and 29:

Yes. Proposed substitute claims 22, 25, 27, and 29 merely change the dependency of originally challenged claims 2, 5, 7, and 9, respectively. Mot. App. A 19, 21–23. For these dependent claims, Petitioner relies on the challenge based on Chatterjee and Corbridge as set forth in the Petition. Opp. 25. For purposes of this Preliminary Guidance and based on the current record, Petitioner appears to have shown a reasonable likelihood that proposed substitute claims 22, 25, 27, and 29 are unpatentable for the reasons discussed in the Institution Decision for originally challenged claims 2, 5, 7, and 9 (Inst. Dec. 79) as well as for the reasons discussed above for proposed substitute claim 21.

For proposed substitute claim 23:

As for proposed substitute claim 23, Petitioner asserts that Lee's impedance adjustment and switching circuitry comprising at least a switch and two capacitors meets the limitation "wherein at least one of said one or more passive components of the impedance network of said first circuitry is (1) chosen a priori with a fixed value and (2) tuned during operation over a range of values." Opp. 25 (citing Ex. 1018, Fig. 6). Petitioner also contends that "Dr. Direen testified that this limitation can be met by 'a capacitor and a switch.'" *Id.* (quoting Ex. 1019, 105:5–12) (citing Ex. 1015 ¶ 49).

As discussed above, however, based on the current record Petitioner has established a reasonable likelihood that proposed substitute claim 23 "contains an impossibility." See Opp. 3–5; Ex. 1015 ¶ 43; Ex. 1019, 105:3–4. As also discussed above, if the Board "cannot ascertain the scope of a claim with reasonable certainty for purposes of assessing patentability" and "if the indefiniteness issue affects only certain claims," the Board should "conclude that it could not reach a decision on the merits with respect to whether petitioner had established the unpatentability of those claims under sections 102 or 103." *Samsung*, 948 F.3d at 1353. Accordingly, we do not reach a decision whether Petitioner has established a reasonable likelihood that proposed substitute

claim 23 is unpatentable under § 103 as obvious over the combination of Chatterjee, Corbridge, Lee, and a POSITA's knowledge.

Based on the information presented at this stage of the proceeding, the evidence tends to suggest that Petitioner has shown that there is a reasonable likelihood of proving that proposed substitute claims 21, 22, 25, 27, and 29 are obvious based on at least one ground for the reasons set forth in Petitioner's Opposition to Patent Owner's Motion and the accompanying Supplemental Declaration of Dr. Joshua Phinney (Exhibit 1015).

We acknowledge that Patent Owner has not yet had the opportunity to address Cook, Lee, and Dr. Phinney's Supplemental Declaration because Petitioner submitted that evidence with its Opposition to Patent Owner's Motion. Patent Owner will have the opportunity to do so in a Reply to Petitioner's Opposition (or in a revised motion to amend).

Based on the assumptions described above, at this preliminary stage of the proceeding, it appears that Petitioner has shown a reasonable likelihood that proposed substitute claims 21–23, 25, 27, and 29 are unpatentable.

III. CONCLUSION

We provide this Preliminary Guidance in response to Patent Owner's request, which is Patent Owner's first option under the Board's MTA pilot program. Notice, 84 Fed. Reg. at 9,497. Under that program, Patent Owner has an additional option to file a revised motion to amend by DUE DATE 3. Paper 8 (Scheduling Order), 5–6.

In addition to those two options under the Board's MTA pilot program, Patent Owner is reminded that amendments of the challenged claims may also be pursued in a separate reissue or reexamination proceeding before, during, or after an AIA trial proceeding, including after a final written decision issues in an AIA trial proceeding. We draw Patent Owner's attention to the Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination

IPR2024-00023

Patent 10,038,339 B2

During a Pending AIA Trial Proceeding, 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the '339 patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. § 42.8(a)(3), (b)(2).

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Patent 10,038,339 B2

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