

No. 25-1444

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United States Court of Appeals  
for the Federal Circuit

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IN RE: SATIUS HOLDING, INC.,

*Appellant*

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On Appeal from the U.S. Patent & Trademark Office,  
Appeal No. 2024-001658, Control No. 90/014,826,  
*Ex Parte* Reexamination of U.S. Patent No. 6,711,385,  
John A. Jeffery, Eric B. Chen, Michael J. Engle,  
Administrative Patent Judges

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**AMICUS BRIEF OF SAMSUNG ELECTRONICS CO.,  
LTD. AND SAMSUNG ELECTRONICS AMERICA, INC.  
IN SUPPORT OF RESPONDENT UNITED STATES  
PATENT AND TRADEMARK OFFICE AND  
AFFIRMANCE**

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August 22, 2025

## PATENT CLAIM AT ISSUE

### U.S. Patent No. 6,711,385

1. A communications apparatus for transmitting electric or electromagnetic signals over air, the air having a characteristic impedance, the communications apparatus comprising:

a transmitter having an output impedance, said transmitter for transmitting the electric or electromagnetic signals at a preselected frequency; and

a coupler connected to the transmitter, said coupler comprising a transformer having a non-magnetic core, said transformer communicating the electric or electromagnetic signals to the air, *said coupler matching the output impedance of the transmitter to the characteristic impedance of the air.*

Appx45 (emphasis added).

**UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT**

**CERTIFICATE OF INTEREST**

**Case Number** 25-1444

**Short Case Caption** In re: Satius Holding, Inc.

**Filing Party/Entity** Samsung Electronics Co., Ltd.; Samsung Electronics America, Inc.

**Instructions:**

1. Complete each section of the form and select none or N/A if appropriate.
2. Please enter only one item per box; attach additional pages as needed, and check the box to indicate such pages are attached.
3. In answering Sections 2 and 3, be specific as to which represented entities the answers apply; lack of specificity may result in non-compliance.
4. Please do not duplicate entries within Section 5.
5. Counsel must file an amended Certificate of Interest within seven days after any information on this form changes. Fed. Cir. R. 47.4(c).

I certify the following information and any attached sheets are accurate and complete to the best of my knowledge.

Date: 08/22/2025

Signature: /s/ Richard L. Rainey

Name: Richard L. Rainey

FORM 9. Certificate of Interest

Form 9 (p. 2)  
March 2023

<b>1. Represented Entities.</b> Fed. Cir. R. 47.4(a)(1).	<b>2. Real Party in Interest.</b> Fed. Cir. R. 47.4(a)(2).	<b>3. Parent Corporations and Stockholders.</b> Fed. Cir. R. 47.4(a)(3).
Provide the full names of all entities represented by undersigned counsel in this case.	Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities.  <input checked="" type="checkbox"/> None/Not Applicable	Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities.  <input type="checkbox"/> None/Not Applicable
Samsung Electronics Co., Ltd.		None, N/A
Samsung Electronics America, Inc.		Samsung Electronics Co., Ltd.

Additional pages attached

**4. Legal Representatives.** List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

None/Not Applicable  Additional pages attached

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Paul J. Wilson		

**5. Related Cases.** Other than the originating case(s) for this case, are there related or prior cases that meet the criteria under Fed. Cir. R. 47.5(a)?

Yes (file separate notice; see below)  No  N/A (amicus/movant)

If yes, concurrently file a separate Notice of Related Case Information that complies with Fed. Cir. R. 47.5(b). **Please do not duplicate information.** This separate Notice must only be filed with the first Certificate of Interest or, subsequently, if information changes during the pendency of the appeal. Fed. Cir. R. 47.5(b).

**6. Organizational Victims and Bankruptcy Cases.** Provide any information required under Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees). Fed. Cir. R. 47.4(a)(6).

None/Not Applicable  Additional pages attached


## TABLE OF CONTENTS

TABLE OF AUTHORITIES.....	iv
STATEMENT OF RELATED CASES .....	v
STATEMENT OF INTEREST .....	1
BACKGROUND .....	4
I. The '385 Patent .....	4
II. The <i>Ex Parte</i> Reexaminations.....	4
A. The First <i>Ex Parte</i> Reexamination (No. 90/014,378) .....	4
B. The Second <i>Ex Parte</i> Reexamination (No. 90/014,826) .....	6
SUMMARY OF THE ARGUMENT .....	12
ARGUMENT .....	14
I. Substantial Evidence Supports the Board's Obviousness Determination. ....	14
A. The Board's Decision Is Both Supported by Substantial Evidence and Correct. ....	14
B. Satius's Own Statements During the Oral Hearing Confirm Invalidity.....	17
II. Satius Forfeited Its Claim Construction Arguments, Which Would Make Claim 1 Indefinite if Adopted.....	18
CONCLUSION .....	23

**TABLE OF AUTHORITIES**

	<b>Page(s)</b>
<b>Cases</b>	
<i>E.I. DuPont de Nemours &amp; Co. v. Synvina C.V.</i> , 904 F.3d 996 (Fed. Cir. 2018) .....	17
<i>Genentech, Inc. v. Hospira, Inc.</i> , 946 F.3d 1333 (Fed. Cir. 2020) .....	15, 17
<i>Geneva Pharms., Inc. v. GlaxoSmithKline PLC</i> , 349 F.3d 1373 (Fed. Cir. 2003) .....	21, 22, 23
<i>In re Google Tech. Holding LLC</i> , 980 F.3d 858 (Fed. Cir. 2020) .....	19
<i>Halliburton Energy Servs., Inc. v. M-I LLC</i> , 514 F.3d 1244 (Fed. Cir. 2008) .....	23
<i>In re Mouttet</i> , 686 F.3d 1322 (Fed. Cir. 2012) .....	16
<i>Nautilus, Inc. v. Biosig Instruments, Inc.</i> , 572 U.S. 898 (2014).....	21
<i>In re Peterson</i> , 315 F.3d 1325 (Fed. Cir. 2003) .....	15, 17
<i>UCB, Inc. v. Actavis Laby’s UT, Inc.</i> , 65 F.4th 679 (Fed. Cir. 2023).....	15, 16, 17
<b>Statutes</b>	
35 U.S.C. § 103(a).....	18
35 U.S.C. § 112(b).....	10, 21

## STATEMENT OF RELATED CASES

No appeal in or from this case has previously been before this Court or any other appellate court.

*Satius Holding, LLC v. Samsung Electronics Co., Ltd., Samsung Electronics America, Inc.*, No. 25-1446 (Fed. Cir.), which this Court has designated as a companion case, ECF 15, may directly affect or be directly affected by this Court's decision in this case.

## STATEMENT OF INTEREST

Pursuant to Federal Rule of Appellate Procedure 29(a)(4)(D), Amici Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (“Samsung”) state as follows:

Samsung is a leading technology company that sells consumer electronics products, such as mobile phones and tablets. Samsung has unique experience in defending against litigation brought by Satius Holding, LLC, f/k/a Satius Holding, Inc. (“Satius”), including Satius’s patent infringement case against Samsung with respect to the patent-in-suit here, U.S. Patent No. 6,711,385 (the “385 patent”). Samsung further requested the *ex parte* reexamination, docketed at Reexamination Control No. 90/014,826, that is now before this Court in the present appeal, with Samsung having earlier requested an *ex parte* reexamination docketed at Reexamination Control No. 90/014,378.

Samsung’s participation as amici would benefit the adjudication of this appeal because Samsung has a detailed understanding of the positions Satius has taken regarding the ’385 patent and prior art in various proceedings. Samsung offers this amicus brief to support the Board’s decision and to provide further context relating to this appeal in

the interest of justice. Parties in companion cases, related cases, or cases raising similar legal issues have frequently participated as amici in appeals from U.S. Patent and Trademark Office decisions.<sup>1</sup>

Pursuant to Federal Rule of Appellate Procedure 29(a)(4)(E), Samsung further states as follows:

Samsung certifies that: (i) no party's counsel authored this brief in whole or in part; (ii) no party or party's counsel contributed money intended to fund preparing or submitting this brief; and (iii) no person,

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<sup>1</sup> See e.g., *In re: Apple, Inc.*, No. 16-1402 (Fed. Cir.), ECF No. 49 (Aug. 31, 2016) (order granting defendant in prior federal court litigation involving the same patent leave to file amicus brief in appeal from an *ex parte* reexamination decision involving the same patent), *id.* at ECF No. 50 (Aug. 31, 2016) (amicus brief of said prior defendant); *In re Collect, LLC*, No. 22-1292 (Fed. Cir.), ECF No. 29 (Aug. 2, 2022) (amicus brief of *ex parte* requester and party in parallel federal court litigation); *In re: Baxter*, No. 11-1073 (Fed. Cir.), ECF 29 (Sept. 19, 2011) (amicus brief of *ex parte* requester and plaintiff in pending district court action); *In re: Island Steel Co.*, No. 00-1143 (Fed. Cir.), ECF 10 (Jul. 5, 2000) (amicus brief of *ex parte* requester and defendant in patent litigation suit involving the same patent); see also *Lynk Labs, Inc. v. Samsung Elec. Co., Ltd.*, No. 23-2346 (Fed. Cir.), ECF No. 17 (Jan. 17, 2024) (amicus brief in appeal of PTAB decision by appellant in co-pending PTAB appeal raising similar legal issue); *id.* at ECF No. 73 (May 10, 2024) (amicus brief of appellee in co-pending PTAB appeal raising similar legal issue); *id.* at ECF No. 133 (Mar. 31, 2025) (amicus brief of appellant in co-pending PTAB in support of *en banc* rehearing).

other than Samsung or its counsel have contributed money that was intended to fund preparing or submitting this brief.

The USPTO consented to Samsung filing this amicus brief. Samsung contacted Satus on August 15, 2025, and asked whether Satus consents to this filing. Satus did not respond. This amicus brief has been submitted along with a motion requesting leave of the Court to accept filing of this brief. Fed. R. App. P. 29(a)(3).

## BACKGROUND

### I. The '385 Patent

The specification of the '385 patent asserts that it is directed to the “well-known problem” of “reflections” that can degrade wireless call quality and data transmission when the impedance between a transmitter and a transmission medium do not match. Appx45 (col. 1, *ll* 11–21). To this end, claim 1 claims an apparatus in which a “coupler match[es] the output impedance of the transmitter to the characteristic impedance of the air.” Appx47 (col. 6, *ll* 40–43). The '385 patent acknowledges that such antennas had already existed, but it asserts that the patent overcomes unspecified “limits” associated with this pre-existing equipment. Appx45 (col. 1, *ll* 43–47).

### II. The *Ex Parte* Reexaminations

#### A. The First *Ex Parte* Reexamination (No. 90/014,378)

Samsung filed its first request for *ex parte* reexamination on September 19, 2019. Appx3337–3338; Appx3364; *see* Appx3363–3365. As summarized in the reexamination decision by the Patent Trial & Appeal Board (the “Board”), Appx3336–3354, the Examiners rejected claim 1 of the '385 patent on the ground that the “coupler” recited in that claim was subject to an obviousness-type double patenting rejection in view of the

inventor's prior claimed "coupler" in U.S. Patent No. 6,407,987 to Abraham ("Abraham '987"). Appx3340–3344. Specifically, the Examiners found that it would have been obvious to combine the "coupler" in Abraham '987 with a dual-strip antenna in U.S. Patent No. 6,184,833 to Tran ("Tran"). Appx3339–3341. The Examiners noted that, in the prosecution of the '385 patent, the applicant had stated that a prior coupler in the inventor's U.S. Patent No. 6,104,707 "can, in fact, be used in the present invention without any modification." Appx3341–42.

The Board reversed, holding that this statement did not establish that "(i) a coupler for matching the impedance of an electrical line is equivalent to or interchangeable with a (ii) a coupler for matching the impedance of the air, without any modification." Appx3342. In other words, a coupler for matching to power lines was not shown to invalidate a coupler for matching to the characteristic impedance of air.

As to publication of the inventor's power-line coupler in Publication No. WO 98/40980 ("Abraham 980"), the PTAB noted that the Abraham 980 coupler likewise was directed to "power lines and power line transformers." Appx3345; *see also* Appx75–79. The Board determined

that Abraham 980 did “not have the capability of ‘communicating the electric or electromagnetic signals to the air.’” Appx3346 (quoting cl. 1).

Administrative Patent Judge Jeffery concurred, noting that the Board was reviewing only what was presented to it, Appx3349, *i.e.*, as to the specific power-line couplers before the Board and whether they corresponded to the ’385 patent’s wireless coupler. APJ Jeffery noted that the Examiners found below that the air has a characteristic impedance of approximately 377 ohms and that this had been undisputed in the reexamination. Appx3349–50. APJ Jeffery then summarized prior art impedance matching networks that match impedance of radio transmitters, “namely transforming a load that can vary from a fraction of an ohm to several thousand ohms to 50 ohms.” Appx3352. APJ Jeffery further noted that the prior art coupling transformers match to transmission lines “and even antennas.” *Id.*

**B. The Second *Ex Parte* Reexamination (No. 90/014,826)**

Samsung filed a second *ex parte* reexamination request that raised, among other references, U.S. Patent No. 2,687,513 to N.E. Lindenblad (“Lindenblad”). Lindenblad issued on April 24, 1954, and discloses an

impedance matching network that can be used with an antenna. Appx101–05; Appx200–39.

On March 3, 2023, the Examiners determined claim 1 to be unpatentable as obvious over Lindenblad. Appx3416–3435; Appx3427–3429.; *see also* Appx4.

After Satus appealed to the PTAB, the same panel heard the matter again. *Compare* Appx2 (APJs Jeffery, Chen, Engle) *with* Appx3337 (same); *see also* Appx1–26. On June 24, 2024, the Board reversed the Examiner’s rejection of claim 1 based on Lindenblad, but entered a new ground of rejection based upon the same reference when combined with either Lew McCoy, *Lew McCoy on Antennas*, 51, 75–76, 79 (1994) (“McCoy”) or William I. Orr, *The W6SAI HF Antenna Handbook*, 5-1–5-2, 5-6, 6-7–6-8, 6-14, 7-10 (1996) (“Orr”). Appx8–16. That is, the Board rejected claim 1 based on prior art impedance matching networks and antennas.

The Board focused on impedance matching because Satus had previously distinguished the power-line impedance matching coupler in the prior reexamination as not providing for the same impedance matching as the ’385 patent’s coupler for wireless applications.

Appx3340–3344. Thus, the Board noted that at the oral hearing the patent owner made explicit that, “based on the disclosure in the ’385 patent in column 3, lines 8 to 24, air’s characteristic impedance can be anywhere from one ohm up to 100 to 200 ohms depending on where the coupler is operated.” Appx11; *see* Appx11–12; Appx21–23. Regarding the output impedance of a transmitter, the Board noted that Satus agreed that the typical output impedance of a transmitter is 50 ohms. Appx11.

Satus’s counsel further explained to the Board at the oral hearing that the claim covers matching impedance values between a 50-ohm transmitter and 100 ohms, as well as other values:

JUDGE JEFFERY: So, if we match 50 ohms to 100 ohms that is at this location A ... then I’ve met the claim, right, with a coupler that matches the 50-ohm transmitter impedance to 100 ohms?

MR. PRICE: As long as that 100 ohms does represent and I’m quoting here from the patent—“the most common characteristic impedance of air where the wireless transmitter or receiver will be used.”

\* \* \*

JUDGE JEFFERY: So, if I’m at location A, we’ll just say the environmental characteristics of location A, whatever it happens to be, gives me a 100-ohm impedance. And if I go from 50 ohms or match 50 ohms to 100 ohms by way of my coupler, then I’ve satisfied the claim?

MR. PRICE: That is correct, Your Honor.

Appx11–12.

The problem, the Board explained, is that “conventional antennas ... have impedances that match air’s characteristic impedance.” Appx12. For example, McCoy describes a “2 to 1 (100 to 50 ohm) *transformer/balun*” that “brings the match down to 1 to 1.” *Id.* (citation and internal quotation marks omitted). Orr is “likewise replete with examples of amateur radio antennas falling within the range of characteristic air impedances contemplated by the ’385 patent in column 3, lines 8 to 24.” *Id.* “[N]ot only was it known at the time of the invention for communication apparatuses to use antennas whose impedances fall within the range of characteristic air impedances contemplated by the ’385 patent[,] ... it was likewise known in the art to use couplers to transform those impedances to a transmitter’s output impedance, namely 50 ohms.” Appx14. Indeed, McCoy disclosed “the very impedance transformation that was discussed at the oral hearing in connection with the illustrative hypothetical example.” *Id.* Furthermore, “Lindenblad is not limited to any particular impedance values, but could include other values, such as a 50-ohm transmitter output impedances and antenna impedances other than 550 ohms, such as those in McCoy and Orr.”

Appx15. The Board thus found that these antennas impedances “will match the air’s characteristic impedance at *some* location given the relatively wide range of air impedances contemplated by the ’385 patent in column 3, lines 8 to 24 and discussed at the oral hearing.” Appx14.

Satius petitioned for rehearing, which the Board denied on December 11, 2024. Appx19–26. In its denial, the Board noted that Satius had argued, among other things, that claim 1 somehow requires “matching the air characteristic impedances at [a particular] location.” Appx22. The Board noted, however, that claim 1 does not contain such a requirement; the claim is directed to “[a] communications apparatus,’ not the environment or system surrounding that communications apparatus.” Appx22–23. Indeed, the claim “is silent as to the location with respect to ‘characteristic impedance of the air.’” Appx23.

Furthermore, while the Board did not have “the issue of indefiniteness under 35 U.S.C. § 112(b)” before it, the Board noted that claim 1 may raise such an issue:

Although the issue of indefiniteness under 35 U.S.C. § 112(b) is not before us, claim 1 may not adequately perform the function of notifying the public of Patent Owner’s right to exclude, because the limitation “characteristic impedance of the air” varies by location. . . . Here, during the oral hearing, Patent Owner stated that “[t]he ’385 patent uses the term

[i.e., ‘characteristic impedance of the air’] to refer to a value that is changeable, depending on the location that you are in” (Tr. 3 [Appx3547]); “there’s no . . . disclosure in the patent of having this output impedance be a variable value that you could kind of tune on the fly” (*id.* at 15 [Appx3559]); and instead “[t]he patent does talk about, you know, matching the most common characteristic impedance where it will be used” (*id.*). Thus, although claim 1 is directed to an “apparatus,” the same accused apparatus could simultaneously infringe claim 1 of the ’385 patent based on one geographical location, but not infringe based on another geographical location with a different “characteristic impedance of air.”

Appx23 at n.1 (alterations in original). Satus then petitioned for review to this Court.

## SUMMARY OF THE ARGUMENT

The Board's rejection of claim 1 is straightforward, well-supported by substantial evidence, and correct. Satus essentially conceded at the oral hearing below that its broad claim as to matching the impedance of a transmitter, *e.g.*, 50 ohms, to a broad range of values was known in the prior art (and, indeed, has long been so).

Faced with that reality, the Board confronted Satus's argument that claim 1 requires matching the air characteristic impedance at a particular location and noted that the claim says no such thing. Appx22–23.

Satus now tries to convert its appeal into a claim construction challenge, where Satus did not pursue such claim constructions below, and argues that the Board either “deviate[d] from its earlier construction” in the first reexamination or “did not faithfully apply [it].” Blue Br. 2, 13.

The Board's decision in the second reexamination, however, is a straightforward application of claim 1 to the prior art. Satus wholly fails to demonstrate that the Board's decision is not supported by substantial evidence. By Satus's own admission, there is significant—if not

complete—overlap between the impedance values matched by claim 1 and those matched by the prior art. The Board’s decision is further fully consistent with the Board’s determination in the first reexamination that it had not been demonstrated that the “power-line” coupler invalidated the ’385 patent’s wireless coupler.

Regarding Satius’s argument that a “location” requirement should be *read into* claim 1, Satius does so while simultaneously seeking to read *out of* the very same claim the “electric . . . signals over air” limitation at issue in the companion case before this Court. Satius’s “location” argument is wholly unsupported, would make a determination as to what is within the scope of claim 1 impossible, and would make the claim indefinite, as the Board suggested.

## ARGUMENT

### **I. Substantial Evidence Supports the Board’s Obviousness Determination.**

As Satus admits, the Patent Office “accurate[ly]” found that “amateur radio antennas have values falling within the range noted in the ’385 patent ....” Blue Br. 3–4 (quoting Appx12). And substantial evidence supports this conclusion. Appx8–26; *see also supra* § Background, II.B. Yet, Satus appeals the Board’s decision because the prior art the Board relied on purportedly did not disclose a coupler intentionally “designed to match the most common characteristic impedance of the air *where the wireless transmitter/receiver will be used.*” Blue Br. at 4 (quoting Appx3342–3344) (emphasis added). That argument both misses the mark and disregards the record below, including Satus’s own statements during the oral hearing before the Board.

#### **A. The Board’s Decision Is Both Supported by Substantial Evidence and Correct.**

The Board made explicit that “conventional antennas ... have impedances that match air’s characteristic impedance.” Appx12. Regarding McCoy’s example of a “2 to 1 (100 to 50 ohm) *transformer/balun*” that “brings the match down to 1 to 1,” *Id.* (citation

and internal quotation marks omitted), Satus admitted claim 1 seeks to nonetheless claim this match, *see supra* § Background, II.B, albeit subject to Satus’s additional “location” argument. The Board further made explicit that Orr is “likewise replete with examples of amateur radio antennas falling within the range of characteristic air impedances contemplated by the ’385 patent in column 3, lines 8 to 24.” *Id.* And in light of McCoy and Orr, “providing a coupler that matches the transmitter’s output impedance to the air’s characteristic impedance in Lindenblad would have been obvious to ordinarily skilled artisans to, among other things, match the transmitter’s output impedance to that of the antenna to maximize power transfer and minimize reflections.” Appx15. Those findings are essentially unchallenged on appeal.

This Court has held that “[i]f the prior art discloses a *point* within the claimed range, the prior art anticipates the claim.” *UCB, Inc. v. Actavis Laby’s UT, Inc.*, 65 F.4th 679, 687 (Fed. Cir. 2023) (emphasis added). And this Court has further “consistently held that even a slight overlap in range establishes a *prima facie* case of obviousness.” *Genentech, Inc. v. Hospira, Inc.*, 946 F.3d 1333, 1341 (Fed. Cir. 2020) (citing *In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003)). Such an

overlap creates a presumption of obviousness upon which, “absent a reason to conclude otherwise, a factfinder is justified in concluding that a disclosed range does just that—discloses the entire range.” *UCB*, 65 F.4th at 689–90 (citation and internal quotation marks omitted).

Here, the ’385 patent indisputably claims matching to impedance values set forth in the prior art. Indeed, Satius’s brief before this Court admits that the Board’s “factual finding is accurate,” Blue Br. 4, and that “amateur radio antennas have values falling within the range noted in the ’385 patent,” *id.* at 3 (quoting Appx12). Under the plain language of claim 1, that itself establishes the claim is invalid.

The Board further noted, in any event, that Lindenblad teaches “choosing impedance values” for a “desired impedance matching network ....” Appx10 (emphasis removed); *see also* Appx3557 (counsel for Satius acknowledging Lindenblad’s teaching). The Board then read Lindenblad in view of McCoy and Orr in view of the ’385 patent’s disclosure regarding impedance. Appx12–16; *In re Mouttet*, 686 F.3d 1322, 1331 (Fed. Cir. 2012) (“[a] reference may be read for all that it teaches”); *see also id.* (citing *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (*en banc*)). As relevant here, the Board found that the ’385 patent

discloses that “air’s characteristic impedance can be ... 100-200 ohms,” and “both McCoy and Orr disclose typical values for various antenna configurations of approximately 100 ohms.” Appx22 (citation and internal quotation marks omitted) (alteration in original). The Board thus concluded that—at the very least—claim 1 is unpatentable as obvious, which is fully supported by this Court’s case law as to attempting to claim broad ranges covering prior art points and ranges. *See, e.g., UCB*, 65 F.4th at 689–90 (discussing precedent); *Genentech*, 946 F.3d at 1341 (same); *E.I. DuPont de Nemours & Co. v. Synvina C.V.*, 904 F.3d 996, 1006 (Fed. Cir. 2018) (“The legal principle at issue in this case is old. ... [The] general principle is that ‘[a] *prima facie* case of obviousness typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art.’” (citation omitted)). Satus wholly fails to challenge on appeal how that determination is not supported by substantial evidence. *See In re Peterson*, 315 F.3d at 1329.

**B. Satus’s Own Statements During the Oral Hearing Confirm Invalidity.**

As discussed above, *see infra* § Background, II.B, during the oral hearing before the Board, Satus contended that claim 1 covers an expansive range of impedance values—supposedly whatever is the

“impedance of the air where the wireless transmitter or receiver will be used.” Appx11–12 (quoting Appx3549). Satius further contended that the claimed range encompasses at least one ohm up to 100 to 200 ohms and 377 ohms. *See* Appx11 (quoting the oral hearing transcript at Appx3547–3549; Appx3554–3555). Satius’s own statements made explicit that claim 1 seeks to patent that which has long been in the prior art, *see supra* §§ Background, II.B; Argument, I; Blue Br. 3–4, such as McCoy’s matching from 100 to 50 ohm, Appx12, Orr’s matching from 135 ohms, 120 ohms, or 105 ohms to 50 ohms, *id.*, and Lindenblad’s impedance matching network allowing a desired impedance to be set, Appx10.

The Board’s conclusions are not only correct, but well-supported by substantial evidence, with Satius wholly failing to challenge the Board’s findings. This Court should affirm the Board’s determination that claim 1 is unpatentable as obvious. *See* 35 U.S.C. § 103(a).

## **II. Satius Forfeited Its Claim Construction Arguments, Which Would Make Claim 1 Indefinite if Adopted.**

The USPTO correctly identifies that Satius neither offered a construction for its Matching Limitation, nor requested that the Board adopt a specific construction for that term. USPTO Resp. Br. 10, 12–18. Rather, as in the district court, Satius argued during the reexamination

that plain and ordinary meaning sufficed. *Compare e.g.*, Appx3484 (“[T]he Examiner’s construction is inconsistent with the plain language of the claims.” (citation omitted)) *with* Appx1785–1786 (“Plain and ordinary meaning – no construction necessary”). Satius’s proposed “location” construction has been forfeited. *See e.g.*, *In re Google Tech. Holdings LLC*, 980 F.3d 858, 863 (Fed. Cir. 2020) (explaining that the party “never presented these arguments to the Board. And therein lies the problem.”); *id.* at 863–65 (declining to “entertain” a forfeited position and affirming the Board’s rejection of patent claims). *See also* USPTO Resp. Br. 12–18.

In any event, the Board’s response below to Satius’s oral hearing and rehearing arguments, *see supra* § Argument, I.A, was correct and supported by substantial evidence. As the Board noted, there is no basis for reading a “location” requirement into claim 1. The claim certainly does not say that. And as the USPTO notes, “Satius’s attempt to make infringement and invalidity turn on an intent of the designer not reflected in the language of the claim” would be wholly inconsistent with the notice function essential to the patent system. USPTO Resp. Br. 14.

Satius now devotes much of its appellate brief to the notion that a “location” requirement should be added to claim 1. Blue Br. 11–12, 15–16, 20. Specifically, Satius oddly seeks to *read into* claim 1 a “location” requirement while simultaneously seeking to *read out of* the very same claim the “electric . . . signals over air” limitation at issue in the companion case before this Court. *See generally*, Brief for Appellant, *Satius Holding, LLC v. Samsung Electronics Co., Ltd., Samsung Electronics America, Inc.*, No. 25-1446 (Fed. Cir. May 30, 2025).

Even setting aside the lack of intrinsic and extrinsic evidence for reading a “location” requirement into claim 1, as the Board noted, such a “location” requirement should not be added because it would make claim 1 indefinite.

Satius represented at the oral hearing below that “[t]he ’385 patent uses the term [i.e., ‘characteristic impedance of the air’] to refer to a value that is changeable, depending on the location that you are in’ [Appx3547]; ‘there’s no . . . disclosure in the patent of having this output impedance be a variable value that you could kind of tune on the fly’ [Appx3559]; and instead [t]he patent does talk about, you know, matching the most

common characteristic impedance where it will be used’ [*Id.*]” Appx 23 n.1 (alterations in original).

Section 112(b) of the Patent Act requires that a patent conclude with “one or more claims *particularly pointing out* and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.” 35 U.S.C. § 112(b); *see also* *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). Satius’s statements at the oral hearing cannot be squared with that requirement.

This Court has further explained, as the Board noted, Appx23 n.1, that a claim is indefinite where a product can simultaneously infringe and not infringe a claim. *Geneva Pharms., Inc. v. GlaxoSmithKline PLC*, 349 F.3d 1373, 1383–84 (Fed. Cir. 2003). In *Geneva*, the patent claimed an antibiotic, and the patent owner sought a claim construction that allowed an effective dosage range to depend on “a given antibiotic, bacteria, and disease combination,” though the patent never identified the particular bacteria. *Id.* at 1384.

This Court then held that this reading of the claim was indefinite because a composition “might infringe or not depending on ... changing circumstances.” *Id.* Specifically, the claims failed to recite particular

bacteria, so a particular dose of the antibiotic “would simultaneously infringe and not infringe the claims, depending on the particular bacteria chosen for analysis.” *Id.* Therefore, a person of ordinary skill in the art “would not know from one bacterium to the next” whether a composition infringed—which “is the epitome of indefiniteness.” *Id.*

Here, Satus acknowledges that “there’s no ... disclosure in the patent of having this output impedance be a variable value that you could kind of tune on the fly.” Appx23 n.1 (quoting Appx3559). And yet claim 1 would purportedly be met, according to Satus, where the apparatus is moved to some unstated location—that is, “depending on the location that you are in.” *Id.* (quoting Appx3547). The public would thus be left with no way to know how this purported, unstated aspect of the apparatus claim is infringed, with respect to making, using, selling, offering for sale, or importing the apparatus, in each case as to some unspecified location where infringement would purportedly occur.

As in *Geneva*, based upon Satus’s arguments, the same device would purportedly “simultaneously infringe and not infringe” the ’385 patent depending on its location and the characteristics of that environment. *Geneva*, 349 F.3d at 1384; Appx23 n.1 (quoting Appx3547;

Appx2559). As the Board aptly put it, “the same accused apparatus could simultaneously infringe claim 1 of the ’385 patent based on one geographical location, but not infringe based on another geographical location with a different ‘characteristic impedance of the air.’” Appx23 n.1.

Furthermore, that location could have various other unexplained “environmental characteristics” that would have to be considered at different times, in somehow determining whether the *apparatus* infringes. Appx3549; *see also* Appx11; Appx21; Appx24. Thus, the “variety of factors” involved ensures that “an artisan would not know from one [location] to the next whether a certain [device] was within the scope of the claim[].” *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1254–55 (Fed. Cir. 2008). Consequently, Satus’s forfeited claim construction argument should not be accepted because, as the Board indicated, Appx23 n.1, doing so would make claim 1 indefinite. *Id.*; *see also Geneva*, 349 F.3d at 1384.

## CONCLUSION

For the foregoing reasons, the Board’s decision should be affirmed.

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Respectfully submitted,

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**UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT**

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**Case Number:** 25-1444

**Short Case Caption:** In Re: Satius Holdings, Inc.

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