NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

POWER2B, INC.,
Appellant

v.

SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS AMERICA, INC.,
Cross-Appellants

2023-2184, 2024-1399, 2024-1400

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2022-00300, IPR2022-00405.

Decided: May 19, 2025

ADAM PETER DANIELS, Polsinelli PC, Los Angeles, CA, argued for appellant. Also represented by MARK THOMAS DEMING, Chicago, IL; JASON WIETJES, Dallas, TX.

WILLIAM FINK, O'Melveny & Myers LLP, Washington, DC, argued for cross-appellants. Also represented by ARGIRENIA ZERVOS; BENJAMIN HABER, ABIGAIL GRACE MCFEE, NICHOLAS WHILT, RYAN KEN YAGURA, Los Angeles, CA; THOMAS MCCLINTON HARRIS, Newport Beach, CA.

Before DYK, STOLL, and STARK, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* DYK.

Opinion dissenting-in-part filed by *Circuit Judge* STARK.

DYK, *Circuit Judge*.

In these inter partes review ("IPR") proceedings, the Patent Trial and Appeal Board ("Board") determined that claims 1–20 and 22 of U.S. Patent No. 7,952,570 (the "'570 patent") and claims 1–19 and 21 of U.S. Patent No. 8,547,364 (the "'364 patent") were shown to be unpatentable as obvious. *Samsung Elecs. Co., Ltd. v. Power2B Inc.*, IPR2022-00300, Paper No. 38, at 2 (P.T.A.B. June 15, 2023) ("*'570 Decision*"); *Samsung Elecs. Co., Ltd. v. Power2B Inc.*, IPR2022-00405, Paper No. 37, at 2 (P.T.A.B. July 14, 2023) ("*'364 Decision*"). Over the dissent of one administrative patent judge, *see '364 Decision* at 75, the Board determined that claim 20 of the '364 patent was not shown to be unpatentable.

Patent owner Power2B, Inc. ("Power2B") appeals the Board's unpatentability determinations, and IPR petitioners Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, "Samsung") cross-appeal the Board's determination that claim 20 of the '364 patent was not shown to be unpatentable. We *affirm* as to Power2B's direct appeal and *reverse* as to Samsung's cross-appeal.

BACKGROUND

Power2B owns the '570 and '364 patents, which share a specification and recite similar claims.[1] The claimed invention consists of a personal user device and a light-emitting stylus. Moving the stylus over the device's "input

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[1] The '364 patent is a continuation of the '570 patent.

area" causes the cursor depicted in the device's display to move: The cursor tracks the movement of the stylus in the x-y plane. Moving the stylus along the z-axis perpendicular to the x-y plane (i.e., away from or toward the display) causes the device to perform a "zooming" function.

The light emitted by the stylus is detected by a sensitive layer positioned directly over the display. This sensitive layer detects the stylus's movement in the x-y plane and outputs this information to the device's processor. A sensor array located around the perimeter of the input area similarly detects and outputs information about the stylus's movement along the z-axis. Claim 1 of the '570 patent is exemplary of the claims at issue in Power2B's appeal:

> 1. An electronic input device comprising:
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> an input object wherein said input object includes a source of said electromagnetic radiation;
>
> an input area;
>
> a sensor array positioned outside said input area operative to sense and provide an output indication of position and at least two of orientation, shape and size of an electromagnetic radiation pattern on said input area produced by said input object; and
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> input circuitry receiving said output indication and providing an electronic input representing at least one of two-dimensional position, three-dimensional position and orientation of said input object; and
>
> wherein said source of said electromagnetic radiation produces a conical beam which intersects said input area in an elliptical pattern having elliptical eccentricity which

> is a function of the orientation of said input object in a plane perpendicular to said input area.

'570 patent, col. 7 ll. 28–45 (emphasis added).

Claim 20 of the '364 patent is the subject of Samsung's cross-appeal and recites:

> 20. A method for making an electronic input device according to claim 17, the method further comprising detecting thresholds of intensity of the electromagnetic radiation pattern on the input area, and generating control signals by the input circuitry.

'364 patent, col. 10 ll. 20–24 (emphasis added).[2]

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[2] Claim 20 depends from claim 17, which recites:

> 17. A method for making an electronic input device, comprising
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> providing an input object and a physical input area;
>
> providing a sensor array positioned partially circumscribing and immediately proximate the input area;
>
> projecting an electromagnetic radiation pattern from the input object on to the input area;
>
> sensing a portion of the electromagnetic radiation pattern by the sensor array;
>
> providing an output indication of position, and at least two of orientation, shape and size of the electromagnetic radiation pattern on the input area, based on the

Samsung filed IPR petitions for the '570 and '364 patents, asserting that the patent claims were unpatentable as obvious over U.S. Patent No. 5,959,617 ("Bird") and European Patent Publication EP 0572182 ("Ishii") and other references. As to claim 20 of the '364 patent, Samsung relied upon the Bird-Ishii combination in view of UK Patent Application GB 2299856 ("Geva").

Bird teaches a system in which a light pen emits light on the device display, with the pen's position being sensed by a planar array of light sensing elements integrated into the display. Ishii teaches a system in which light emitted by the light pen is received by parallel, crisscrossing optical waveguides in the display. These waveguides transfer the light across the display along the x- and y-axes to the edges of the device, where a light-receiving array located in the end portions of the waveguides detects the pen's position. Geva teaches a system that calculates a light pen's position along the z-axis by applying a mathematical function to the pen's position in the x-y plane, which is detected by light sensors.

> electromagnetic radiation pattern, which includes an elliptical shape having an eccentricity that is a function of the orientation of the input object relative to the input area; and
>
> providing an input circuitry that receives the output indication, which input circuitry provides an electronic input representing at least one of two-dimensional position, three-dimensional position, and orientation of the input object.

'364 patent, col. 9 l. 16–col. 10 l. 8.

Before the Board, Samsung argued that an ordinarily skilled artisan would be motivated to combine Bird's light sensing device with Ishii's peripheral light sensor array. Power2B argued that the Bird-Ishii combination failed to disclose the "sensor array positioned outside said input area" limitation, noting that this limitation was added to the claim during prosecution after an anticipation rejection over Bird. Relevant to the cross-appeal, Samsung argued that an ordinarily skilled artisan would modify the Bird-Ishii combination in light of Geva to reach claim 20 of the '364 patent. Power2B argued that Samsung had not shown in its petition that the combination disclosed "generating control signals by the input circuitry."

The Board concluded that Samsung had shown claims 1–20 and 22 of the '570 patent and claims 1–19 and 21 of the '364 patent to be unpatentable but that Samsung's IPR petition failed to properly argue the "generating control signals by the input circuitry" limitation of claim 20 of the '364 patent. Power2B appealed, and Samsung cross-appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

"Obviousness is a mixed question of fact and law." *Novartis AG v. Torrent Pharms. Ltd.*, 853 F.3d 1316, 1327 (Fed. Cir. 2017). We review the Board's legal conclusion of obviousness de novo and its factual findings for substantial evidence. *Okajima v. Bourdeau*, 261 F.3d 1350, 1354 (Fed. Cir. 2001). We interpret claim terms by looking to their ordinary meaning in light of the specification and prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315–17 (Fed. Cir. 2005) (en banc). A claim is obvious under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the claims would have been obvious to a person having

ordinary skill in the art at the time of the invention. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

I

On appeal, Power2B urges that the Bird-Ishii combination's sensor array is not positioned outside the input area. Power2B argues that the Board improperly construed the claim term "input area" to be "an area for input, regardless of any relationship that input area may or may not have with a display." *See* Appellant's Br. 54 (citation omitted); *see also '570 Decision* at 19; *'364 Decision* at 20.[3] Power2B asserts that the device's input area must be its display.

This construction is foreclosed by language of claim 1, which merely recites "an input area" and "a sensor array positioned outside said input area." The claim does not even recite a display (unlike the dependent claims), let alone any relationship disclosed between the input area and display or a requirement that they be coextensive. *See Apple Inc. v. Gesture Tech. Partners, LLC*, 129 F.4th 1367, 1380 (Fed. Cir. 2025) (rejecting patent owner's attempt through claim construction "to add a . . . limitation to the claims that is simply not there"). None of Power2B's

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[3] The parties had originally agreed that the claim terms should be construed according to their plain and ordinary meaning, but the Board determined that their arguments revealed a dispute about the term "input area," for which it ordered supplemental briefing. To the extent that Power2B asserts that this was improper, we disagree. In this context, the Board may construe claims sua sponte when a dispute arises, and it provides the parties notice and an opportunity to respond *See, e.g.*, *TQ Delta, LLC v. DISH Network LLC*, 929 F.3d 1350, 1354–56 (Fed. Cir. 2019); *Praxair Distribution, Inc. v. Mallinckrodt Hosp. Prods. IP Ltd.*, 890 F.3d 1024, 1034 (Fed. Cir. 2018).

citations to the specifications supports its position that the input area must be coextensive with the display.

The specification expressly contemplates that "the three[-]dimensional position of the stylus . . . relative to any other part of the device . . . or relative to any fixed location could be used." '570 patent col. 6 ll. 60–63. *See Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1305 (Fed. Cir. 2007) (rejecting a claim construction that would exclude examples disclosed in the specification). We see no basis for departing from the unambiguous meaning of the claim language in light of the specification to require that the input area be coextensive with the display.[4]

Power2B also argues that the Board's conclusion that the asserted combination discloses a sensor array outside of the input area is not supported by substantial evidence. We disagree and conclude that the Board's finding was supported by substantial evidence. The Board's finding is supported by Ishii itself, which discloses a device that receives an input light from the light pen only within the area of the display that contains intersecting waveguides that transmit the light to the sensing elements so that x- and y-coordinate positions can be determined.[5] *See* J.A. 752 ¶ 23; J.A. 754 ¶¶ 47, 51; J.A. 763 Fig. 9. The portion of the

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[4] During prosecution, Power2B amended its claims to include the "outside the input area" limitation in response to an anticipatory rejection over Bird. *See* J.A. 3688. Power2B argues that this amendment shows that the display must be coextensive with the input area. *See* Appellant's Br. 56–57. The prosecution history does not demonstrate this relationship.

[5] Throughout its briefing, Power2B makes numerous cursory references to the record for the proposition that Ishii teaches away from a light sensor outside of the input area. *See* Appellant's Br. 24, 40. These references do not support Power2B's contentions.

waveguides overlapping with the area in which the sensing array is housed perform no such transmission function. The Board was also entitled to credit Samsung's expert's testimony that an ordinarily skilled artisan would have understood that Ishii's sensing elements are at the end of each optical waveguides and that the ends of the optical waveguides are outside of the input area. *See '570 Decision* at 28 (quoting J.A. 351). We disagree with Power2B's suggestion that Samsung's expert's testimony that an ordinarily skilled artisan "would have understood that Ishii's photosensors . . . are at the end of each optical waveguide . . . [, and] are thus positioned both 'outside' . . . the input area," J.A. 351 ¶ 113, was merely "conclusory." Appellant's Br. 65. This testimony is again supported by Ishii's own teachings, and the expert adequately explained his opinions in reference to those disclosures and Ishii's Figure 9. *See* J.A. 351 ¶ 113; J.A. 754 ¶¶ 45, 51; J.A. 765 Fig. 9; *see also* J.A. 756 ¶¶ 78–79. The Board was well within its discretion to credit that testimony over Power2B's expert witness. We thus conclude that the Board's findings are supported by substantial evidence and affirm the Board's conclusion that claims 1–20 and 22 of the '570 patent and claims 1–19 and 21 of the '364 patent are unpatentable.

II

The sole issue in Samsung's cross-appeal is whether the Board properly determined that claim 20 of the '364 patent was not shown to be unpatentable because Samsung's petition failed to address the claim's "generating control signals by the input circuitry" limitation. In its petition, Samsung grouped together claims 6, 7, 13, and 20. J.A. 5474–77. Claim 20 requires a "control signal," whereas claim 13 requires an "output indication":

> 13. An electronic input device according to claim 10, wherein the sensor array is also operative to sense and <u>provide an output indication of</u>

> intensity of the electromagnetic radiation in the electromagnetic radiation pattern.

'364 patent, col. 8 l. 66–col. 9 l. 2 (emphasis added). We conclude that claim 20's "control signals" limitation does not materially differ from claim 13's "output indication" limitation and that Samsung thus properly argued the unpatentability of claim 20 in this respect. Because we affirm the Board's conclusion that claim 13 was shown to be unpatentable, we hold that the Board erred in concluding that claim 20 was not shown to be unpatentable.

The Board's decision regarding claim 20 is reviewed for an abuse of discretion, as it involved the application of its own regulations, specifically 37 C.F.R. § 42.104(b)(4), *see* J.A. 145. We conclude that the Board abused its discretion because its decision was based on a legally erroneous interpretation of the claim language. In the portion of its petition addressing claim 20, Samsung explicitly incorporated by reference its argument as to claim 13. *See* J.A. 5475 ("Claim 20—A method . . . according to claim 17, the method further comprising detecting thresholds of intensity of the electromagnetic radiation pattern on the input area, and generating control signals by the input circuitry. Bird-Ishii-Geva teaches Claim 20, as above for Claim 13, using the intensity profile of Figure 3 along each of the X and Y axes.").[6] The claims are both dependent claims depending from different claims. The claims are substantially similar to one another, with claim 20 requiring

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[6] The dissent suggests that Power2B, in its Patent Owner Response, argued that Samsung's petition did not address claim 20's "control signals" limitation. *See* Dissent Op. 3. But the only mention of this limitation was Power2B's generic denial that "Samsung does not reference, discuss, or argue any disclosure of Bird, Ishii, or Geva discloses or suggests this recital." J.A. 7527.

"generating control signals by the input circuitry," '364 patent, col. 10 ll. 23–24, and claim 13 requiring "provid[ing] an output indication of intensity of the electromagnetic radiation," *id.* at col. 8 l. 67–col. 9 l. 2. In its argument as to claim 13, Samsung pointed to Geva as providing "additional teachings about intensity with peripheral light sensors" by providing an array comprising "a multiplicity of light sensing elements, each transmitting a signal to the processing device." J.A. 5474 (quoting J.A. 5968 ll. 12–14).

Contrary to the dissent's apparent suggestion that Samsung "conceded" failure to address this limitation, *see* Dissenting Op. 3–4 (quoting Oral Arg. at 29:18–23, 29:38–30:10), Samsung extensively demonstrated both in its briefing on appeal and at oral argument how it made this argument before the Board. In its opening brief, Samsung explained that it [expressly incorporated its arguments as to claim . . . 13 . . . [and that] [t]his resolves the cross-appeal because the broadly claimed 'input circuitry/control signal' limitation of claim 20 is substantially similar to the 'input circuitry/electronic input' limitation." Cross-Appellant's Br. 71. Samsung explained that it referenced to these arguments in arguing claim 20 such that a dissenting AJ agreed:

> The dissent also noted that Samsung, in addressing dependent claim 20 under the Bird ground, expressly incorporated its argument as to dependent claim 13 . . ., which requires a "sensor array . . . operative to sense and provide an output indication of intensity of the electromagnetic radiation in the electromagnetic radiation pattern."

Cross-Appellant's Br. 74 (second alteration in original) (quoting J.A. 149–150). And Samsung pointed out that "the Board made different findings as to substantially the same claim[] elements, which is arbitrary and capricious, contrary to law, and lacking substantial evidence." Cross-Appellant's Br. 78 (citing *Vicor Corp. v. SynQor, Inc.*,

869 F.3d 1309, 1321 (Fed. Cir. 2017)); *see also* Cross-Appellant's Reply Br. 3 ("Samsung addressed the 'control signal' portion of claim 20 in claim 13, which Samsung expressly incorporated by reference.").

At oral argument, counsel for Samsung similarly did not concede failure to make this argument before the Board:

> [W]hat Samsung said in claim 13 is, when you have the output of the intensity, . . . you create a signal that is sent to the microprocessor 16 in Geva, ... And granted, it's not . . . *in hac verba*, that this is the generating control signals, . . that is the only signal that Samsung talks about in the claims.

Oral Arg. at 27:05–27:28.[7]

With respect to claim 13, the Board agreed that an ordinarily skilled artisan would be motivated to combine the Bird-Ishii combination with "Geva's teachings for determining position of a light spot by providing an output indication of intensity." *'364 Decision* at 68–69. As to claim 13,

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[7] Counsel for Samsung also stated as follows:

> The Court. Did you ever say in your petition that the control signal does not add anything?
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> Samsung Counsel. We did not, but to be fair, your Honor–
>
> The Court. You just completely did not address this limitation, right?
>
> Samsung Counsel. Well, we believe we did by putting them together.

Oral Arg. at 29:20–30.

Samsung pointed to Geva as providing "additional teachings about intensity with peripheral light sensors" by providing an array comprising "a multiplicity of light sensing elements, each transmitting a signal to the processing device." J.A. 5474 (quoting J.A. 5968 ll. 12–14). With respect to claim 20, the Board nonetheless found that Samsung failed to "address where 'generating control signals by the input circuitry' is taught." *Id.* at 71 (citation omitted).

The patent does not describe any difference between an "output indication" and "control signal." Quite the contrary. While neither term is specifically mentioned in the specification, the specification makes clear that any "control" functionality controls the data displayed on the device's display.

In fact, every reference to "control" in the specification is directly tied to displaying data. *See id.* at Abstract ("An electronic device comprises . . . control means for controlling the displayed device on said display in dependence on the three-dimensional position of the input means relative to said device." (emphasis added)).[8] Indeed, the specification clearly indicates the patentee's view that the invention is an improvement over previous means of controlling data displayed on the display: "Conventionally, the user of the device 10 controls the data displayed on the display 12 by means of a number of buttons 14 located on the device or by an input device such as a scratch pad or tracker ball." '364 patent, col. 2 ll. 44–47.

While the term "output indication" does not appear in the specification, claim 10 (from which claim 13 depends) states that the term refers to a signal conveying information relating to "position, . . . orientation, shape[,] and

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[8] *Accord id.* at col. 1 ll. 60–65; *id.* at col. 2 ll. 14–16; *id.* at col. 2 ll. 44–47; *id.* at col. 3 ll. 20–32.

size of the electromagnetic radiation pattern on the input area." *Id.* at col. 8 ll. 45–48. The specification makes clear that this information is used to achieve "'three-dimensional control' of the display 12, which can be used" to "cause[] the cursor on the display 12 . . . to move . . . in the manner of a conventional mouse" and "cause[] the data in the region of the display 12 corresponding to the X-Y position of the stylus 16 to be magnified in a manner similar to that achieved by the 'zoom in' function of conventional computers and computer programs." *Id.* at col. 3 ll. 30–48. "Control signals" (claim 20) thus control the data displayed on the device, and "output indications" (claim 13) do the same. Even if control signals were somehow broader than output indications, the latter is clearly included in the former.

To be sure, we generally "presume that the use of . . . different terms in [different] claims connotes different meanings." *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000). But this presumption is not an invariable rule of interpretation: "[S]imply noting the difference in the use of claim language does not end the matter. Different terms or phrases in separate claims may be construed to cover the same subject matter." *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1330 (Fed. Cir. 2009) (quoting *Nystrom v. TREX Co.*, 424 F.3d 1136, 1143 (Fed. Cir. 2005)).

We have explained that where claims "use slightly different language to describe substantially the same invention," the "mere use of different words . . . does not create a new issue of invalidity." *Ohio Willow Wood Co. v. Alps S., LLC*, 735 F.3d 1333, 1342–43 (Fed. Cir. 2013); *see also Soverain Software LLC v. Victoria's Secret Direct Brand Mgmt., LLC*, 778 F.3d 1311, 1319 (Fed. Cir. 2015) (concluding that claims were not sufficiently different for purposes of invalidity when "the patentee failed to explain how the additional limitation would change an invalidity analysis"). The claims in this case are similar to those we

considered in *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111 (Fed. Cir. 2004). There, the patent owner sought to distinguish the terms "operatively connected" and "operatively associated" in the context of a water filtration system. *Id.* at 1120. We found that "the context does not show that 'connected' and 'associated' should be differentiated into the definitions proposed by [the patentee]," concluding that "this is simply a case where the patentee used different words to express similar concepts." *Id.*

Based on the claim language and specification here, we perceive no basis to conclude that the device generates "control signals" in a manner that is meaningfully different from generating "output indications." Read in the context of the entire claims, both terms simply refer to outputting information to the control center in response to an intensity indication to control the data on the display.

We agree with the dissenting administrative patent judge that Samsung's argument "sufficiently addresse[d] the broad claim language requiring 'generating control signals by the input circuitry.'" *'364 Decision* at 76. Because correcting the Board's analysis results in "only one permissible factual finding," reversal is appropriate. *Corning v. Fast Felt Corp.*, 873 F.3d 896, 903 (Fed. Cir. 2017).

CONCLUSION

We *affirm* the Board's determination that claims 1–20 and 22 of the '570 patent and claims 1–19 and 21 of the '364 patent were shown to be unpatentable and *reverse* the Board's determination that claim 20 of the '364 patent was not shown to be unpatentable. We do not reach Samsung's alternative issue preclusion ground for affirmance.

AFFIRMED-IN-PART AND REVERSED-IN-PART

COSTS

Costs to Samsung.

NOTE: This disposition is nonprecedential.

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SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS AMERICA, INC.,
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2023-2184, 2024-1399, 2024-1400

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2022-00300, IPR2022-00405.

STARK, *Circuit Judge*, dissenting-in-part.

I join the majority in affirming the Board's findings of unpatentability of claims 1-20 and 22 of Power2B's '570 patent as well as the unpatentability of claims 1-19 and 21 of its '364 patent. Hence, I agree with my colleagues that we should affirm the Board's finding that each of those claims is unpatentable.

I dissent, however, from the majority's decision to reverse the Board's finding that Samsung failed to prove the unpatentability of claim 20 of the '364 patent. With respect

to that claim, I agree with the Board that Samsung failed to address, in any manner, a limitation unique to claim 20, a failing Samsung candidly acknowledges and one we should not permit to be corrected on appeal. We should, therefore, affirm the Board in full, including on Samsung's cross-appeal.

I

Claim 20 of the '364 patent recites:

> A method for making an electronic input device according to claim 17, the method further comprising [i] detecting thresholds of intensity of the electromagnetic radiation pattern on the input area, and [ii] *generating control signals by the input circuitry*.

J.A. 170 (internal roman numerals and emphasis added).

The claim consists essentially of two parts: [i] detecting thresholds of intensity and [ii] generating control signals. The second part, "generating control signals," is a *unique limitation that does not appear in any other claim*. To be clear, the "generating control signals" limitation of claim 20 does not appear in claim 17, the claim from which claim 20 depends, and it does not appear in the claims with which Samsung lumped claim 20 together in its petition: claims 6, 7, and 13. J.A. 5474-77.

Strikingly, the petition nowhere addresses claim 20's unique "generating control signals" limitation. In fact, the sole reference in the petition to this limitation unique to claim 20 is in a header reproducing the claim language. J.A. 5475. The subsequent discussion – which is only about a page, including figures copied from the prior art – is devoted entirely to the detecting intensity limitations, which *are* common across claims 6, 7, 13, and 20, and ignores the generating control signals limitation found only in claim 20. J.A. 5475-76.

Not only did Samsung not address the "generating control signals" limitation, it did not argue (much less prove) that this limitation is immaterially different from limitations found in other claims and discussed elsewhere in the petition. Samsung conceded this point at oral argument:

> Court: Did you ever say in your petition the control signal doesn't add anything?
>
> Samsung: We did not . . . .

Oral Arg. at 29:16-23.

Although Power2B had no obligation to do so, it pointed out the petition's deficiency in its Patent Owner Response. There, Power2B expressly identified claim 20's unique "generating control signals" limitation and called out Samsung's failure to make any effort to prove that this portion of claim 20 was taught by the prior art. Power2B wrote:

> Samsung again ignores the plain claim language. Claim 20 recites 'generating control signals by the input circuitry.' Samsung does not reference, discuss or argue any disclosure of Bird, Ishii, or Geva discloses or suggests this recital.

J.A. 7527 (internal citation omitted). Even after having this deficiency explicitly pointed out, Samsung still chose not to address the "generating control signals" limitation in its Reply – as it again conceded at oral argument:

> Court: Well I think the patent owner response called this out, that you missed this limitation in your petition, did they not?
>
> Samsung: The patent owner response did, did call this, this out.
>
> Court: And did you fix it in the reply?

> Samsung: And I don't think we went back and addressed generating control signals because . . . our view was [that] it was clear from the teachings of claim 13 that there's an output signal.
>
> Court: But did you even say that much to the Board in your reply?
>
> Samsung: No, we didn't. No, Your Honor, we didn't.

Oral Arg. at 29:38-30:10; *see also* Brief of Cross-Appellants Samsung at 71 (admitting that "[i]n its [Patent Owner] Response [at the Board], Patent Owner argued that Samsung did not address the requirement of claim 20 of 'generating control signals by the input circuitry'").

Thus, far from abusing its discretion, the Board was entirely correct when it concluded: "petitioner does not address where 'generating control signals by the input circuitry' is taught in Bird, Ishii, or Geva, or by their combination. Hence, the petition is deficient as to claim 20 for this ground." J.A. 145 (internal citation omitted).

II

Samsung, now joined by my colleagues, has two basic responses. First, Samsung contends that while it failed to explicitly discuss the "generating control signals" limitation, it did so implicitly. Second, it is so plain that the unique limitation of claim 20 adds nothing material to the other claims that it is, therefore, appropriate for us to go ahead and make this finding ourselves. I do not find either approach persuasive.

A

Samsung's principal contention in its cross-appeal is that it implicitly addressed claim 20 in its petition by incorporating by reference its express showings as to other

claims. Samsung's logic is flawed. Because claim 20 is the only claim in which the "generating control signals" limitation appears, that limitation is not ever addressed in Samsung's discussion of other claims. While Samsung did incorporate by reference other portions of its petition, giving Samsung full credit for all that it incorporated still leaves the same void.[1]

Moreover, in the limited portion of the petition addressing claim 20, the *only* substantive discussion is about the detecting thresholds component of claim 20, *not* the generating control signals limitation. The words and all of the figures in the petition's discussion of claim 20 are *all* addressed solely to intensity and *not at all* to control signals. J.A. 5475-76 ("Bird-Ishii-Geva teaches Claim 20, as above for Claim 13, using the *intensity profile* of Figure 3 along each of the X and Y axes. . . . Because the Geva-Ishii combination is sensing light along both the X and Y axes, there would be two minimum *intensity* level thresholds . . . .") (emphasis added).

Before us, Samsung insists that, despite its silence with respect to claim 20's unique limitation, Samsung's position should have somehow been clear to the Board. By addressing claim 20 in the same part of its petition as claim 13 (as well as claims 6 and 7), yet not saying anything express about how the prior art rendered obvious the "generating control signals" limitation, Samsung expected the Board to divine that Samsung viewed claim 20 as not materially different from claim 13. But "it is the petitioner's burden to present a clear argument," and "the Board should . . . not have to decode a petition to locate additional

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[1] I have no objection to the well-established practice of efficiently discussing multiple claims in the same portion of a petition. The interests of efficiency, however, do not allow a petitioner to avoid its burden of proof with respect to every limitation of any challenged claim.

arguments beyond the ones clearly made." *Netflix, Inc. v. DivX, LLC*, 84 F.4th 1371, 1377 (Fed. Cir. 2023); *see generally Intell. Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) ("It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify 'with particularity' the 'evidence that supports the grounds for the challenge to each claim.'") (quoting 35 U.S.C. § 312(a)(3)). I think it is plain that Samsung did not meet this burden.

B

Samsung's additional argument on appeal, with which the majority again agrees, is that claim 20's "generating control signals by the input circuitry" does not need to have been separately addressed because it is basically the same thing as claim 13's "output indication of intensity of the electromagnetic radiation," and the latter limitation was proven to be obvious. The majority concludes, for instance, that "[t]he claims are substantially similar to one another, with claim 20 requiring 'generating control signals by the input circuitry,' and claim 13 requiring 'provid[ing] an output indication of intensity of the electromagnetic radiation.'" Maj. Op. at 10-11 (internal citations omitted; second alteration in original). It continues by analyzing the specification for the meaning of the terms – as Samsung should have done before the Board – to conclude that "both terms simply refer to outputting information to the control center in response to an intensity indication." Maj. Op. at 15.

While the majority may be correct, it is impossible (at least for me) to tell from the undeveloped record. The purported similarities between the limitations are not self-evident. The words used in the two limitations ("generating control signals" and "providing an output indication of intensity") are quite different, making this a very different case from the one on which the majority relies. *See Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*,

381 F.3d 1111, 1119-20 (Fed. Cir. 2004) (finding, in appeal from district court – where complaints may be amended, unlike IPR petitions – no substantial difference between "operatively connected" and "operatively associated").

Just because Power2B's patent "does not describe any difference between an 'output indication' and 'control signal,'" it does not necessarily follow that the two terms must be substantially similar. Maj. Op. at 13. As the majority acknowledges, different claim terms are presumed to have different meanings. Maj. Op. at 14 (citing *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000)). But Samsung has ignored this presumption and instead attempts to place the onus on Power2B by contending that Power2B "does not argue that these terms are meaningfully different from each other or that the prior art does not teach them." Cross-Appellant's Reply Br. 5-6. We should not allow Samsung to shift the burden and ask this court to fix Samsung's failure to rebut the presumption. *See Netflix*, 84 F.4th at 1377 ("[W]e have rejected, many times, post-hoc attempts on appeal to include additional, new arguments not contained in the petition.").

III

An appeal is far too late for Samsung to try, for the first time, to show that claim 20's "generating control signals" limitation is not materially different from limitations of claims found unpatentable. By not making its arguments to the Board, Samsung forfeited its opportunity to make them to us. *See Netflix*, 84 F.4th at 1378 ("Any argument not raised to the Board is forfeited, and we decline to consider it for the first time on appeal."). There is no reason to excuse Samsung's forfeiture, and neither Samsung nor the majority suggests one.

The Board did not abuse its discretion. And Power2B should not be deprived of its property right. I respectfully dissent.