

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HISENSE USA CORPORATION,
Petitioner,

v.

BRIGHTPLUS VENTURES LLC,
Patent Owner.

IPR2023-01401
Patent 8,941,331 B2

Before STACEY G. WHITE, KEVIN C. TROCK, and
JOHN D. HAMANN, *Administrative Patent Judges*.

HAMANN, *Administrative Patent Judge*.

PRELIMINARY GUIDANCE
PATENT OWNER'S MOTION TO AMEND
37 C.F.R. § 42.121(e)

I. INTRODUCTION

On March 20, 2024, we instituted trial as to claims 17–25 of U.S. Patent No. 8,941,331 B2. Paper 7. After institution, Patent Owner filed a Motion to Amend that is contingent on the patentability of claims 17 and 22. Paper 11 (“Motion” or “Mot.”). Petitioner filed an Opposition on September 23, 2024. Paper 16 (“Opposition” or “Opp.”).

In the Motion, Patent Owner requested that we provide preliminary guidance concerning the Motion in accordance with 37 C.F.R. § 42.121(a)(1)(ii).¹ Mot. 2, 18–19; *see* 37 C.F.R. § 42.121(e)(1); *see also Rules Governing Motion to Amend Practice and Procedures in Trial Proceedings under the America Invents Act before the Patent Trial and Appeal Board*, 89 Fed. Reg. 76,421 (Sept. 18, 2024) (“Final Rule”). We have considered Patent Owner’s Motion and Petitioner’s Opposition.

In this Preliminary Guidance, we provide information 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 associated with filing a motion to amend in an *inter partes* review and whether Petitioner establishes a reasonable likelihood that the substitute claims are unpatentable. 37 C.F.R. § 42.121(e)(1), (2); *see also* 35 U.S.C. § 316(d) (statutory requirements for a motion to amend); 37 C.F.R. § 42.121(a)(2), (a)(3), (b) (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

¹ Although Patent Owner’s submission requested guidance under the Board’s MTA (Motion to Amend) Pilot Program, because the Pilot Program has been replaced with Final Rule governing motion to amend practice as of October 18, 2024, we provide guidance under the Final Rule, but note that our guidance is the same either way.

guidance regarding motions to amend). The reasonable likelihood standard this Preliminary Guidance applies is different than the preponderance of the evidence standard applied when ultimately deciding the Motion. *Compare* 37 C.F.R. § 42.121(e)(1) *with* § 42.121(d). Finally, this preliminary guidance is not a “decision” for purposes of rehearing under 37 C.F.R. § 42.71(d). 37 C.F.R. § 42.121(e)(2).

For purposes of this Preliminary Guidance, we focus on the proposed substitute claims, and specifically on the amendments proposed in the Motion. *See* 37 C.F.R. § 42.121(e)(1); Final Rule, 89 Fed. Reg. at 76,425. We do not address the patentability of the originally challenged claims. *See id.* Moreover, in formulating our preliminary views on the Motion and Opposition, we have not considered the parties’ other substantive papers on the underlying merits of Petitioner’s challenges. 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 or any other subsequent decision in this proceeding. 37 C.F.R. § 42.121(e)(2); *see Medytox, Inc. v. Galderma S.A.*, 71 F.4th 990, 1000 (Fed. Cir. 2023).

II. PRELIMINARY GUIDANCE

A. Statutory and Regulatory Requirements

Patent Owner bears the ultimate burden to show that its Motion to amend complies with the requirements of 35 U.S.C. § 316(d)(1), (3) and 37 C.F.R. § 42.121(a)(2), (a)(3), (b)(1), and (b)(2). 37 C.F.R. § 42.121(d)(1). For the reasons discussed below, at this stage of the proceeding, and based on the current record, it appears that Patent Owner has not shown a reasonable likelihood that it

has satisfied the statutory and regulatory requirements associated with filing a motion to amend. *See* 37 C.F.R. § 42.121(e)(1).

1. Reasonable Number of Substitute Claims

A motion to amend must propose a reasonable number of substitute claims. 35 U.S.C. § 316(d)(1)(B); 37 C.F.R. § 42.121(a)(3). Patent Owner has shown it proposes a reasonable number of substitute claims because Patent Owner proposes no more than 1 substitute claim for each challenged claim. *See* 37 C.F.R. § 42.121(a)(3) (presumption that only one substitute claim is needed to replace each challenged claim).

2. Respond to Ground of Unpatentability

A motion to amend must respond to a ground of unpatentability involved in the proceeding. 37 C.F.R. § 42.121(a)(2)(i). Patent Owner has responded to a ground of unpatentability involved in this proceeding because the Motion adds further limitations that Patent Owner contends render the claims patentable over Lys, Grootes, Xu, Mueller, and Blum cited in the Petition. Mot. 4.

Petitioner argues Patent Owner did not address, in its Motion, the structure and arrangement that the Board preliminarily decided was taught by Lys and therefore does not respond to grounds of unpatentability involved in the proceeding. Opp. 2. We determine Petitioner's arguments in this regard implicate the merits of Petitioner's unpatentability arguments, rather than whether Patent Owner has responded to a ground of unpatentability. We address these merits arguments below in connection with our analysis of the unpatentability arguments.

3. Scope of Amended Claims

A motion to amend may not enlarge the scope of the claims of the patent. 35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii). Patent Owner's Motion has

enlarged the scope of the claims of the patent because both claims 26 and 27 omit “a lighting panel” which was required by claim 17 and claim 22 (by virtue of dependency). *Lectrosonics* at 6 (“[a] patent owner may not seek to broaden a challenged claim *in any respect* that enlarges the scope of the claims of the patent”) (emphasis added); *see also* Opp. 3–4 (arguing claim 27 is enlarged by not including the lighting panel). If the phrase “a lighting panel” was not omitted, the amendment would not seek to enlarge the scope of the claims.

4. New Matter

A motion to amend may not introduce new subject matter. 35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii). We preliminarily determine that Patent Owner has not established that the Motion does not introduce new subject matter because Patent Owner has not set forth sufficient written description support for the proposed substitute claims, as explained below.

i. Patent Owner’s Written Description Support

Patent Owner has not set forth sufficient written description support for the proposed substitute claims in accordance with the relevant sections of 37 C.F.R. and the precedential *Lectrosonics* decision.

First, the Motion is required to set forth the support “in the original disclosure of the patent.” 37 C.F.R. § 42.121(b)(1); *Lectrosonics* at 7–8 (“[i]mportantly, to meet this requirement, citation should be made to the original disclosure of the application, as filed, rather than to the patent as issued”). The Motion (*see* Mot. 6–7) did not set forth the support in the original disclosure of the ’331 patent that was filed May 17, 2013, but instead set forth disclosure in the patent as issued in January 2015. Second, the Motion (*see* Mot. 6–7) did not set forth support in the priority application original disclosures. *See* 37 C.F.R.

§ 42.121(b)(2) (the motion must set forth the support in an earlier-filed disclosure for each claim for which the benefit of the filing date of the earlier-filed disclosure is sought); *Lectrosonics* at 7–8 (motion to amend must “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”). Third, the Motion did not set forth written description support for each proposed substitute claim *as a whole*. See *Lectrosonics* at 8 (“the motion must set forth written description support for each proposed substitute claim as a whole, and not just the features added by the amendment”). To provide guidance, however, below we address whether what Patent Owner did identify supports the features added by amendment.

ii. Claim 27

The support cited for substitute claim 27 (reciting production of a yellow color using a phosphor) on page 7 of the Motion does not specifically call out the color yellow. Rather, column 7 describes “the LEDs **16A-16D** may be covered by an encapsulant **14**, which . . . may include . . . phosphors, and/or other elements to achieve a desired . . . color.” Ex. 1001, 7:34–38. At this stage, in light of the description in the Background section of the ’331 patent that “backlight assemblies typically employ white LED lighting devices that include a blue-emitting LED coated with a wavelength conversion phosphor that converts some of the blue light emitted by the LED into yellow light” (see Ex. 1001, 1:54–58), we consider the claimed production of yellow light using a phosphor to be supported by the teaching in column 7,² as it would have been understood by someone of ordinary

² We consider the claimed production of yellow light using a phosphor to have written description support if Patent Owner establishes the language in column 7 is in the original disclosure of the ’331 patent and any earlier-filed disclosure for which the benefit of the filing date of the earlier-filed disclosure is sought, as discussed above.

skill in the art. And thus, at this stage, we do not agree with Petitioner’s argument that because “phosphors are disclosed [in column 7], at best, as one of multiple examples of components of the broad concept of an ‘encapsulant’” there is no written description support (*see* Opp. 6) for the reason that phosphors to achieve a desired color are disclosed in column 7.

At this stage, we do not agree with Petitioner’s arguments (*see* Opp. 6–7) that there is no support for “wavelength conversion phosphor containing element” because we consider at least the description of the encapsulant 14 including phosphors (*see* Ex. 1001, 7:34–38) would provide support.

B. Indefiniteness and Unpatentability Arguments by Petitioner

Claim 26 is an independent claim that is a proposed substitute for independent claim 17 and claim 27 is an independent claim that is a proposed substitute for dependent claim 22.

Petitioner bears the ultimate burden to show that any proposed substitute claims are unpatentable. 37 C.F.R. § 42.121(d)(2). For the reasons discussed below, at this stage of the proceeding, and based on the current record,³ it appears that Petitioner has shown a reasonable likelihood that proposed substitute claim 26 is unpatentable as obvious. *See* 37 C.F.R. § 42.121(e)(1). Regarding proposed substitute claim 27, at this stage of the proceeding, and based on the current record, it appears that Petitioner has shown a reasonable likelihood that the limitation in proposed substitute claim 27 “said blue light interacting with the wavelength conversion phosphor containing element to produce a dominant wavelength corresponding to a yellow color” does not impart patentability to claim 27.

³ We express no view on the patentability of original claims 17 and 22 in this Preliminary Guidance. Instead, we focus on limitations added to those claims in the Patent Owner’s Motion to Amend.

However, Petitioner does not expressly address the patentability of the other language added to claim 27 compared with original claims 17 and 22, namely, the following language in italics: “wherein the first *and second* strings of solid state lighting devices are *covered*⁴ with a wavelength conversion phosphor *containing element*.”

1. Indefiniteness

i. Claim 26

At this stage, we disagree with Petitioner’s argument that “each tile” in claim 26 is indefinite (*see* Opp. 4) because we consider “each tile” refers to the previously recited “at least two rectangular tiles.”

ii. Claim 27

At this stage, we disagree with Petitioner’s argument that “said blue light” in claim 27 lacks antecedent basis (*see* Opp. 4) because we consider “said blue light” to refer to “a combined light including a dominant wavelength corresponding to a blue color.”

At this stage, we disagree with Petitioner’s argument that “the first light that includes a combined light including a dominant wavelength corresponding to a blue color” in claim 27 is indefinite (*see* Opp. 4–6) for the same reason as above.

2. Obviousness

i. Claim 26

The limitations added to claim 26 compared with original claim 17 are “a lighting bar assembly containing at least two rectangular tiles configured into a

⁴ Claim 22 recites “coated” instead of “covered.”

two-dimensional array; wherein each tile comprises” at least first and second strings.

At this stage, we agree with Petitioner’s contentions that prior art of the original grounds teaches these limitations. *See* Opp. 8–14. For example, Lys discloses a lighting bar assembly as shown in Figure 8 and described in the associated text containing at least two rectangular tiles in the form of rectangular tiles 802 configured into a two-dimensional array as shown in Figure 8. *See* Ex. 1005 (Lys) 49:7–23, Fig. 8; Opp. 9–10. Lys describes the light tile 802 can include a panel 804 on which light sources are disposed in an array. *Id.* Lys further describes a board 204 similar to panel 804 with a six-by-six array of LED light sources 300 of different colors. *See id.* at 68:18–30, Fig. 22b.

At this stage, we consider the above-cited portions of Lys teach that “each tile comprises . . . solid state lighting devices.” At this stage, we have not further considered whether “at least first and second strings of solid state lighting devices that are respectively configured to emit at least a first light and a second light, respectively” is taught because this language stems from the originally challenged claims.

ii. Claim 27

The limitations added to claim 27 compared with original claims 17 and 22 are set forth in italics below:

wherein the first *and second* strings of solid state lighting devices are *covered*⁵ with a wavelength conversion phosphor *containing element* and are configured to emit the first light that includes a combined light including a dominant wavelength corresponding to a blue color, *said blue light interacting with the wavelength conversion phosphor*

⁵ Claim 22 recites “coated” instead of “covered.”

*containing element to produce*⁶ a dominant wavelength corresponding to a yellow color.

At this stage, we view the claimed blue to yellow conversion to have been known in the art. *See* Ex. 1001, 1:54–58 (“backlight assemblies typically employ . . . a blue-emitting LED coated with a wavelength conversion phosphor that converts some of the blue light emitted by the LED into yellow light”); *Qualcomm Inc. v. Apple Inc.*, 24 F.4th 1367, 1375–76 (Fed. Cir. 2022) (admissions are permissible evidence in an IPR for establishing background knowledge possessed by a person of ordinary skill in the art).

At this stage, we agree with Petitioner’s contentions that prior art of the original grounds and other new prior art disclose converting blue light into yellow light using a wavelength conversion phosphor containing element. *See* Opp. 14–22.

Lys describes “blue LEDs that include a phosphor” (Ex. 1005, 6:16–17) and “a phosphor material that converts luminescence having a first spectrum to a different second spectrum.” *Id.* at 37:28–30; *see also id.* at 3:15–16 (“a phosphor for shifting a wavelength of light”), 4:15–16 (“a phosphor for shifting a wavelength of light”), 36:11–13 (“white LEDs (typically produced through a blue or UV LED plus a phosphor mechanism) does give a ‘better’ white”). In one example, “luminescence having a relatively short wavelength and narrow bandwidth spectrum ‘pumps’ the phosphor material, which in turn radiates longer wavelength radiation having a somewhat broader spectrum.” *Id.* at 37:30–38:2.

We observe Lys does not appear to expressly state that blue light and a phosphor is used to produce yellow.

⁶ Claim 22 has the word “and” instead of this language in italics.

Maeda⁷ relates to “light-emitting semiconductor devices utilizing blue-light-emitting diodes (hereinafter, referred to as blue LEDs) and yellow/yellowish phosphors in combination to emit white light.” Ex. 1018 ¶ 1; *see* Opp. 16–17. Maeda describes “yellow/yellowish phosphor particles 2 is a phosphor which absorbs blue light emitted by the blue LED 1 to emit a luminescence having a main emission peak in the wavelength range from 550 nm to 600 nm.” Ex. 1018 ¶ 181; *see* Opp. 17. A wavelength of 580 nm is yellow. *Id.* ¶ 5; *see also id.* ¶ 39 (yellow/yellowish light is between or equal to 550 nm and 600 nm). Park⁸ describes “a blue LED chip is coated with a phosphor. The phosphor converts some of the blue light into yellow. When yellow and blue colors mix together in the phosphor layer, (a mixture of a thermosetting polymer and a phosphor), the escaping light becomes white.” Ex. 1019 ¶ 99; *see* Opp. 18. Henson⁹ describes “a blue LED die can be coated with a YAG:Ce phosphor (or the like). In this example, a portion of the blue light from the LED die is mixed with the phosphor-converted yellow light to effectively generate ‘white’ light.” Ex. 1020 ¶ 32; *see* Opp. 19.

Accordingly, at this stage, we agree with Petitioner that Maeda, Park, and Henson disclose solid state lighting devices that are covered with a phosphor and are configured to convert blue light into yellow light using the phosphor. *See* Opp. 16–20. At this stage, we agree with Petitioner that there would have been motivation to combine the newly-cited portions of Lys as well as the portions of Maeda, Park, and Henson with the art of the original grounds. *See* Opp. 20–22 (citing Exhibit 1022 (Second Declaration of Rafael Betancourt)).

⁷ US 2005/0227569 A1, published Oct. 13, 2005 (Ex. 1018, “Maeda”).

⁸ US 2005/0133800 A1, published Jun. 23, 2005 (Ex. 1019, “Park”).

⁹ US 2005/0140270 A1, published Jun. 30, 2005 (Ex. 1020, “Henson”).

C. Board Discretion to Raise New Grounds of Unpatentability

The Board may exercise its discretion to raise a new ground of unpatentability in connection with a proposed substitute claim, irrespective of Patent Owner's and Petitioner's burdens. 37 C.F.R. § 42.121(d)(3); *see Nike, Inc. v. Adidas AG*, 955 F.3d 45, 53 (Fed. Cir. 2020); *Hunting Titan, Inc. v. DynaEnergetics Europe GmbH*, 28 F.4th 1371, 1381 (Fed. Cir. 2022). In its new grounds, the Board may consider and make of record any evidence in a related proceeding before the Office and evidence that a district court can judicially notice and any information identified in examination assistance, e.g., from a prior art search in relation to proposed substitute claims. 37 C.F.R. § 42.121(d)(3)(i), (ii).

We exercise our discretion to raise new grounds of unpatentability, which we provide notice of in this Preliminary Guidance. 37 C.F.R. § 42.121(d)(3) and (e)(3), (4). The parties will have an opportunity to respond. 37 C.F.R. § 42.121(d)(3) and (e)(3). Patent Owner may respond in a revised MTA or in its reply for the MTA. *See* 37 C.F.R. § 42.121(e)(3). Petitioner may respond in its sur-reply. *Id.*

1. Patentability

For the reasons discussed below, at this stage of the proceeding, and based on the current record, it appears that proposed substitute claim 27 is unpatentable as indefinite because lines 8–13 of claim 27 recite that the second string is configured to emit the first light but lines 2–3 of claim 27 recite that the first string is configured to emit first light and the second string is configured to emit second light. The language is unclear. If the intent is that the second string emits both first and second light, then this should be expressly stated.

Regarding claim 26, we understand the language “configured into a two-dimensional array” modifies “at least two rectangular tiles.” At this stage, we

question whether two tiles can be configured into a two-dimensional array. Two tiles, like two points in space, only define one dimension. It appears that three tiles are required in order for the tiles to be configured into a two-dimensional array — for example, a first tile, a second tile below the first tile, and a third tile to the left or right of the first tile. We observe column 8, lines 53–60 of the '331 specification identifies a co-linear arrangement of tiles in Figure 4A as a one-dimensional array not two-dimensional as claimed. At this stage, we do not consider claim 26 indefinite.

2. Conclusion

For the reasons detailed above, we exercise our discretion to raise new grounds of unpatentability. This Preliminary Guidance serves as notice of our newly raised grounds under 37 C.F.R. § 42.121(d)(3), (e)(1). As detailed below, Patent Owner has the opportunity to respond in a reply or revised MTA and Petitioner has the opportunity to respond in a sur-reply. 37 C.F.R. § 42.121(e)(3), (e)(4), (f).

III.CONCLUSION

This concludes our Preliminary Guidance. Patent Owner has the option to reply to this Preliminary Guidance *or* to file a revised MTA by DUE DATE 3. 37 C.F.R. § 42.121(e)(3), (f); Ex. 3002. Patent Owner's reply or revised MTA may only respond to this Preliminary Guidance or Petitioner's Opposition and may be accompanied by new evidence (including declarations). 37 C.F.R. § 42.121(e)(3). Petitioner has the option to file a sur-reply responsive to this Preliminary Guidance, Patent Owner's reply, or Patent Owner's revised MTA but may not present new evidence in any case. 37 C.F.R. § 42.121(e)(3). Petitioner may also

file a reply to the preliminary guidance in the case Patent Owner does not file a reply or revised MTA. 37 C.F.R. § 42.121(e)(4).

In addition, 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 subsequent to the issuance of the Final Written Decision. We draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged 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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