

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAMBRIDGE INDUSTRIES USA, INC.,
Petitioner,

v.

APPLIED OPTOELECTRONICS, INC.,
Patent Owner.

IPR2025-00436
Patent 10,313,024 B2

Before MITCHELL G. WEATHERLY, MONICA S. ULLAGADDI, and
IFTIKHAR AHMED, *Administrative Patent Judges*.

WEATHERLY, *Administrative Patent Judge*.

DECISION

Denying Petitioner's Request on Rehearing of
Decision Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.71(d)

I. INTRODUCTION

A. Background

Cambridge Industries USA, Inc. ("Petitioner") filed a petition (Paper 2, "Pet.") to institute an *inter partes* review of claims 1–17 (the "challenged claims") of U.S. Patent No. 10,313,024 B2 (Ex. 1001, "the

'024 patent"). 35 U.S.C. § 311. Applied Optoelectronics, Inc. ("Patent Owner") timely filed a Preliminary Response. Paper 10.

Patent Owner filed a timely Request for Rehearing of the Decision Denying Institution of *Inter Partes* Review. Paper 13 ("Reh'g Req." or "Request for Rehearing"). For the reasons expressed below, we deny the Request for Rehearing.

B. Standard for Reconsideration

When rehearing a decision on petition, the Board will review the decision for an abuse of discretion. *See* 37 C.F.R. § 42.71(c). An abuse of discretion may be determined if a decision is based on an erroneous interpretation of law, if a factual finding is not supported by substantial evidence, or if the decision represents an unreasonable judgment in weighing relevant factors. *See Arnold P'ship v. Dudas*, 362 F.3d 1338, 1340 (Fed. Cir. 2004). The party challenging the decision has the burden of showing the decision should be modified, and the request for rehearing "must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed" in its papers. 37 C.F.R. § 42.71(d).

II. ANALYSIS

In our Decision, we concluded that Petitioner had failed to carry its burden of demonstrating a reasonable likelihood of prevailing that either Mizobuchi or Akashi anticipated any of claims 1–17. Dec. 7, 11. Petitioner argues that we should institute review for four reasons. First, Petitioner argues that we violated Petitioner's due process rights by failing to allow Petitioner to address the meaning of "light engine driving circuit" in a reply brief responding to Patent Owner's Preliminary Response. Reh'g Req. 12.

Second, Petitioner argues that our analysis of its challenge based on Mizobuchi because we ignored Mizobuchi's teachings regarding the microcontroller and we erred by "adopting Patent Owner's misrepresentation" of Mizobuchi reflecting "profound confusion about the teachings of the '024 patent and Mizobuchi." *Id.* at 13–14. Third, Petitioner argues that we "failed to consider the knowledge" of an ordinarily skilled artisan when analyzing whether Akashi described the claimed "light engine driving circuit." *Id.* at 14–15. Fourth, Petitioner argues that we "seized upon an errant annotation" and disregarded "uncontested evidence of anticipation" when analyzing whether Akashi described the claimed "light engine interface region." *Id.* at 15. None of Petitioner's arguments is persuasive.

A. Due Process

Petitioner argues that by "failing to provide Petitioner with an opportunity to respond to Patent Owner's redefinition of the 'light engine driving circuit,' the Board violated Petitioner's due process rights." Reh'g Req. 12. We denied Petitioner's request to file a brief to respond to Patent Owner's alleged "redefinition" of the "light engine driving circuit" via email on July 1, 2025. Ex. 3001.

Petitioner's Request for Rehearing is styled as having been filed under Rule 42.71(d) and seeking rehearing of our Decision Denying Institution of Review. Reh'g Req. cover page, 1. "A party may request rehearing on a decision by the Board on *whether to institute a trial* pursuant to paragraph (d) of this section." 37 C.F.R. § 42.71(c) (emphasis added). Our decision on July 1, 2025, denying Petitioner's request to file a reply to the Patent Owner Preliminary Response is not a decision on "whether to institute trial"

and thus is not a decision for which Petitioner may request rehearing under Rule 42.71(c) or (d). *Id.* For this reason alone, Petitioner's Request for Rehearing on the due process issue is improper and denied.

Additionally, Petitioner both failed to make a showing of good cause for its request for permission to file a reply to the Patent Owner Preliminary Response. Ex. 3001; see also 37 C.F.R. § 42.108(c) (requiring petitioners to show good cause for a request to file a reply to the preliminary response). If Petitioner had wished to seek rehearing of that interlocutory ruling denying its request to file a preliminary reply, it could have done so under Rule 42.71(b) within fourteen days of our denial. But it did not. Nor did Petitioner expressly address the meaning of "light engine driving circuit" in its Petition, despite an opportunity to do so. On balance, we find that Petitioner had ample process available to address its concerns about claim interpretation. In the current circumstances, we find that Petitioner has failed to show that we violated its due process rights.

For all these reasons, Petitioner's Request for Rehearing of our decision denying its request to file a reply to Patent Owner's Preliminary Response is procedurally improper and thus denied.

B. Mizobuchi's Alleged Disclosure of the "Light Engine Driving Circuit"

Petitioner argues that we erred by "ignor[ing] Mizobuchi's teachings regarding the microcontroller," Reh'g Req. 13, and that the Petition "identified" the microcontroller as the claimed "light engine driving circuit," *id.* (citing Pet. 12, 19). The Petition never mentions the word "microcontroller" at the cited locations or in its text at all, much less "identify" the microcontroller as a "light engine driving circuit." *See generally*, Pet. Petitioner may not alter its Petition or the argument

presented as a basis for establishing that reconsideration is warranted.
37 C.F.R. § 42.71(d).

Instead, Petitioner expressly identified a “clock data recovery (‘CDR’) circuit and a power supply” as the claimed “light engine driver circuit.” *Id.* at 19 (citing Ex. 1006, Figs. 2, 3A, 3:57–64,¹ 12:27–41). Mizobuchi’s Figures 2 and 3A fail to illustrate either of these components, and the cited text from Mizobuchi does not describe these components as a driving circuit of any kind, much less a “light engine driving circuit.” Ex. 1006, Figs. 2, 3A, 3:57–64, 12:27–41. We reviewed those cited portions of Mizobuchi and find Petitioner’s assertions to be unpersuasive because Petitioner does not show how Mizobuchi expressly or inherently discloses a “light engine driving circuit.” Dec. 6–7. We discern no error justifying reconsideration of our conclusion that Petitioner had failed to demonstrate a reasonable likelihood of proving that Mizobuchi disclosed a “light engine driving circuit” on the claimed “substrate.”

C. Akashi’s Alleged Disclosure of the “Light Engine Driving Circuit”

Petitioner argues that we failed to consider the knowledge of an ordinarily skilled artisan and “unrebutted evidence” of how such an artisan would have understood how Akashi discloses the claimed “light engine driving circuit.” *Reh’g* Req. 14–15 (citing Ex. 1003 ¶ 124). The cited

¹ We reproduced part of this cited portion of Mizobuchi in the Decision, Dec. 7. That portion also mentions a microcontroller as a component on Mizobuchi’s first circuit board 2. Ex. 1006, 3:57–59. Simply citing text from Mizobuchi without explanation does not constitute “identifying” the microcontroller as the claimed “light engine driving circuit,” let alone point out with sufficient particularity how or why a component of Mizobuchi’s printed circuit board 2 discloses this recitation of the claims. 37 C.F.R. § 42.104(b).

testimony reads, in its entirety: “In my opinion, a POSITA would have understood that Akashi discloses a light engine driving circuit disposed on the substrate 107 that provides a RF signal and a power signal to drive the hermetically sealed light engine to output one or more channel wavelengths.” Ex. 1003 ¶ 124 (citing Ex. 1007, FIG. 1, ¶¶ 26–27).

“A reference may anticipate inherently if a claim limitation that is not expressly disclosed ‘is necessarily present, or inherent, in the single anticipating reference.’ . . . The inherent result must inevitably result from the disclosed steps; ‘[i]nherency . . . may not be established by probabilities or possibilities.’” *In re Montgomery*, 677 F.3d 1375, 1379–80 (Fed. Cir. 2012) (citations omitted, alterations to second quote in original). Dr. Kirk’s testimony and the cited portions of Akashi fall far short of establishing an express or inherent disclosure of the claimed “light engine driving circuit” on the claimed “substrate.” Dec. 8. Dr. Kirk cites Akashi’s Figure 1, which does not illustrate any driving circuit, and Akashi’s paragraphs 26 and 27, which briefly describe Akashi’s Figures 3 and 4. Ex. 1007, Fig. 1, ¶¶ 26, 27. His testimony is also inconsistent with Petitioner’s annotation of an area on a different substrate in Akashi, circuit board 109, as the substrate on which Akashi allegedly disposes a “light engine driving circuit,” further undermining the probative value of his testimony. As explained in our Decision, we concluded that Petitioner failed to carry its burden of demonstrating a reasonable likelihood that Akashi describes the claimed “light engine driving circuit disposed on the substrate” as recited in the claims. This failure of proof in the Petition alone is sufficient to support our finding that Akashi had not been shown to anticipate any claim. Therefore, we discern no error justifying reconsideration of our Decision.

D. Akashi's Alleged Disclosure of the "Light Engine Interface Region"

Petitioner argues that we "seized upon an errant annotation" on Akashi's Figure 1, when we concluded that Petitioner had failed to identify how Akashi describes the claimed "light engine interface region for electrically coupling with the hermetically-sealed light engine." Reh'g Req. 15. Petitioner contends that the text of the Petition explained that "the light engine interface region is configured to electrically couple with the hermetically sealed light engine via the second circuit board." *Id.* (citing Pet. 30; Ex. 1003 ¶ 123). Even if we were to ignore Petitioner's "errant" annotation on Akashi's Figure 1, Petitioner's textual explanation falls short of demonstrating a reasonable likelihood that Akashi describes the claimed region on the "substrate." Petitioner argues that the region is on Akashi's "second circuit board" 109, which is a different substrate than Akashi's circuit board 107, which Petitioner alleged to be the claimed "substrate" when arguing that an ordinarily skilled artisan "would have understood that Akashi discloses a light engine driving circuit disposed on the substrate 107." Pet. 30. Petitioner's mapping of the "light engine driving circuit" and the "light engine interface region" to different substrates in Akashi is an independent reason for finding Petitioner's challenge based on Akashi to be unpersuasive.

For these reasons, we discern no error in our conclusion that Petitioner failed to carry its burden of demonstrating a reasonable likelihood that Akashi describes the claimed "light engine interface region" on the "substrate" as recited in the claims. Therefore, we discern no error justifying reconsideration of our Decision.

E. Summary of Alleged Errors

Although Petitioner spends almost ten pages summarizing alleged errors in the Decision, it ties none of these alleged errors to the “arguments” it presents for reconsidering our Decision. Reh’g Req. 2–11. Nor does Petitioner point out how any particular “error” is material to our ultimate conclusion that Petitioner failed to demonstrate a reasonable likelihood of proving that any challenged claim was unpatentable.

III. ORDER

For the reasons given, it is:

ORDERED that Patent Owner’s Request for Rehearing of the Decision Denying Institution of *Inter Partes* Review (Paper 13) is *denied*.

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