

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

OPTICIS CO., LTD

Petitioner,

v.

INNEOS LLC,

Patent Owner.

Case No. IPR2023-01256
U.S. Patent No. 7,198,416

**SUR-REPLY TO PATENT OWNER'S PRELIMINARY
RESPONSE TO PETITION**

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As authorized by the Board on November 29, 2023, Patent Owner submits the following Sur-Reply to Petitioner’s Reply to Patent Owner’s Preliminary Response (Paper 12) (“Reply”). Because the Reply contains new grounds for invalidity, it should be excluded. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016). Further, Petitioner’s analysis of the preamble invites reversible error by treating the preamble as an undifferentiated whole. *See TomTom, Inc. v. Adolph*, 790 F.3d 1315, 1323 (Fed. Cir. 2015) (each portion of divisible preamble should be analyzed separately). The Reply’s “plain and ordinary meaning” of “optical combiner” is contradicted by the specification. “Stop” is a structural limitation clearly described in the specification. Petitioner still fails to identify the correct corresponding structure for “focusing means,” warranting denial of institution. *See* 37 C.F.R. §42.104(b)(3). Finally, for Ground 5, the Reply misconstrues the priority-date evidence. Institution should be denied.

I. REPLY EXCEEDS PERMISSIBLE SCOPE

Petitioner’s Reply goes beyond the scope allowed by the Board (“to address Patent Owner’s claim construction arguments and evidence”) and argues for grounds of invalidity not raised in the Petition. Reply 8–9. Petitioner asks the Board to consider Lemoff and Kurita in new ways not previously disclosed in the Petition. “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.’ 35 U.S.C. §312(a)(3).” *Intelligent Bio-Sys., Inc.*, 821 F.3d at 1369. If new issues are presented in a Reply, the Board need not “parse the reply brief to determine which, if any, parts of that brief are responsive and which are improper.” *Id.*

First, the Reply argues that the Board should combine Kurita and Lemoff in a way that is not disclosed in the Petition, based on the arguments advanced in the Reply. Reply 8–9. (“The Petition includes grounds based on Kurita, based on Lemoff, and their combination. The Board should institute.”). However, Ground 2 is the only combination that includes Kurita and Lemoff. In Ground 2, the Petition relies on Lemoff only for its “receptacle and ferrule.” *See* Petition pp. 29, 33.

Second, the Reply argues Kurita is “integrated,” which is not argued in the Petition. *Id.* p. 9. Third, the Reply offers new arguments that Lemoff meets claim limitations under Patent Owner’s constructions, even though Petitioner did not apply those constructions in its Petition. *Id.* p. 8. Petitioner should not be allowed to submit new grounds for invalidity in its Reply.

II. RESPONSE TO REPLY REGARDING CLAIM CONSTRUCTIONS

A. All or Nothing Approach to Construing Preamble Is Improper

Petitioner’s Reply argues that the preamble should not be construed at all because it includes a phrase that provides the stated “purpose or intended use” of the invention. Reply at 1. But if the preamble can be neatly packaged into separate

portions, the Board can and should analyze each portion of the preamble separately. *Bio-Rad Labs., Inc. v. 10X Genomics Inc.*, 967 F.3d 1353, 1371 (Fed. Cir. 2020) (*citing TomTom*, 790 F.3d at 1323 (trial “court erred in determining it had to construe the entire preamble if it construed a portion of it”))).

In the Reply, Petitioner skips the phrase “optical combiner” in the preamble and focuses only on the preamble’s statement of purpose. In fact, the only reason Petitioner contends “optical combiner” is not limiting is because a portion of the preamble states the intended purpose. *See* Reply at 2 (referring to Section I.A. regarding “Statement of Purpose or Intended Use”). This conflicts with *TomTom*, 790 F.3d at 1323, and *Bio-Rad Labs., Inc.*, 967 F.3d at 1371.

Pursuant to Federal Circuit precedent, the Board should examine each portion separately, as Patent Owner did in its POPR. If one portion of the preamble is found not to be limiting that does not mean the entire preamble is nonlimiting as Petitioner’s Reply argues. In this case, even when considered separately, all portions of the preamble are limiting, including the stated purpose and intended use, because the preamble provides important context to the claims, including antecedent basis for several elements in the body of the claims.

Petitioner also contends that the body of the claims disclose a “structurally complete” invention. But this argument is circular. An invention is only structurally complete if “deletion of the preamble phrase does not affect the

structure or steps of the claimed invention.” *Am. Med. Sys., Inc. v. Biolitec, Inc.*, 618 F.3d 1354, 1359 (Fed. Cir. 2010) (quoting *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 809 (Fed. Cir. 2002)). Thus, Petitioner is actually suggesting that the optical components in the body of the claims could be discrete, free-floating components that are not combined or integrated into a device at all. But this ignores the reality that the specification never discusses free-floating optical components in the context of the invention, and describes the “present invention” as a “compact” and cost effective optical combiner, that can be “one piece” or of “two or more parts combined.” EX1001 at 1:51-55, 2:21-26.

B. “Optical Combiner” Limits the Claims Beyond Its Stated Purpose

Petitioner alternatively argues that if “optical combiner” is limiting, it should be given its plain meaning. But Petitioner’s proposed construction (which Petitioner improperly tries to offer as a restatement of the term’s “plain meaning”)—*a device that combines multiple optical inputs into an output*—once again attempts to cabin the optical combiner to its stated purpose or intended use. Reply at 2. Other portions of the preamble cover the stated purpose or intended use of the optical combiner. See cl. 1 (e.g., “optical combiner *usable in data communication systems for multiplexing the outputs of a plurality of n lasers*”).

Contrary to the Reply, *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251 (Fed. Cir. 1989) and its reasoning are directly on point. There, the

defendant also asserted the preamble merely stated a purpose or intended use of the claimed structure in reciting “An optical waveguide comprising....” *Id.* at 1256. However, the Federal Circuit found the “specification makes clear that the inventors were working on the particular problem of an effective optical communication system not on general improvements in conventional optical fibers.” *Id.* at 1257. The Court held “[t]he invention is restricted to those fibers that work as waveguides as defined in the specification.” *Id.*

In *Wastow Enters., LLC v. Truckmovers.com, Inc.*, 855 F. App’x 748, 752 (Fed. Cir. 2021), the Federal Circuit limited “device” in the preamble to a particular type of device because of the specification’s clear message that the invention was confined to that device. *See Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1358 (Fed. Cir. 2012) (term in preamble is a fundamental characteristic of the invention and informs the meaning of other claim terms, specification supports this conclusion); *Honeywell Int’l, Inc. v. ITT Indus.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006) (when the specification describes the features of the “present invention” as a whole, this description limits the scope of the invention).

Here, the specification characterizes the present invention as an integrated device; the device can be either a one-piece combiner or one where the parts have been sub-assembled into a single device. EX1001 at Abstract, 2:11-18, 1:51-55, 4:61-63. The optical combiner is a module separate and apart from the optical

components themselves. *Id.* at 3:32-34, 3:39-40, 4:10-11, 4:32-34. Further, the specification explains that the optical combiner's module is "formed" by integrating its parts. *See id.* 3:39-44; *see also id.* 3:67-4:9, 4:10-13, 4:55-57, 4:61-63. Petitioner's reliance on the discussion of Lee in the "Background" section of the specification is irrelevant. Patent Owner does not argue that "combiner" or a "device" is a term of art, but that the specification defines and delimits the present invention's "optical combiner." The specification clearly distinguishes Lee from the "present invention." *Id.*, 1:67-67, 2:5-6.

C. Focusing Means

Petitioner's Reply confirms that Petitioner ignores the embodiments of "focusing means" shown in FIGS. 1–11 and the corresponding descriptions in the specification. Petitioner is simply referencing the portions of the specification that tie the element labeled as a focusing lens to the claimed function, and not the structure of that element as shown in the Figures and corresponding descriptions.

When multiple embodiments in the specification correspond to the claimed function, proper application of §112, ¶ 6 generally reads the claim element to embrace each of those embodiments. *Micro Chemical, Inc. v. Great Plains Chem. Co., Inc.*, 194 F.3d 1250, 1258–59 (Fed. Cir. 1999).

When analyzing the various structures of a focusing means in the specification, the Figures show a focusing lens that is integrated into the optical

combiner and positioned in such a way relative to the optical path to accomplish the claimed function of focusing the collimated light onto a single spot on the fiber. *See* FIGS. 1–11. The specification does not have to state the lens is “integrated” because it can be seen in the Figures—it is axiomatic that Figures disclose structure. *See, e.g., In re Beigel*, 7 F. App’x 959, 963 (Fed. Cir. 2001) (“Figures 6 and 7 and their corresponding descriptions in the specification provide an explicit structure for different embodiments....”).

And the specification *does* describe each focusing lens as being integrated. EX1001 3:31-38, 3:54-60, 4:5-8, 4:35-46. What is clear from the specification is that the focusing means is not a discrete, free floating, focusing lens.

Claim 2 is consistent with Patent Owner’s construction of focusing means. Under the proper construction of “optical combiner,” the “focusing lens” in claim 2 is integrated into the optical combiner, an integrated device. This is consistent with the “focusing means” disclosed in the specification as an integrated lens.

Next, the Reply attempts to shift the burden to the Patent Owner to identify corresponding structure, but this is Petitioner’s burden. In *Facebook, Inc. v. Sound View Innovations, LLC*, IPR2017-01006, Paper 14 (P.T.A.B. Aug. 29, 2017) the PTAB denied institution where Petitioner presented the same corresponding structure as Patent Owner in counterpart district court litigation. Disagreeing with both parties over the proper corresponding structure, the PTAB found that the

Petitioner’s adoption of Patent Owner’s construction “does not relieve the Petitioner of its burden to comply with [the] Rules for [IPRs].” *Id.* at 15; *see* 37 C.F.R. § 42.104(b)(3).

D. Stopped

Patent Owner’s construction of “stopped” comes from and is consistent with the specification itself and dictionary definitions of what it means to be “stopped.” Petitioner’s construction is not a term of art or based on any disclosure from the specification. The term “stopped” appears three times in the claims—not only in the functional language of the means plus function element. Petitioner’s argument, that not all of the claimed embodiments specifically illustrate the stop, is unavailing. Although stop 60 is not labeled in FIG. 6, it is clearly visible in the cutaway view of the ferrule. And FIGS. 7–11 only show the combiner “generally,” to illustrate certain aspects of additional embodiments. EX1001 at 3:62.

III. PATENT OWNER’S PRIORITY DATE

Petitioner’s Reply misconstrues the priority evidence in the record. There is evidence of diligence “from November 10, 2003 until January 15, 2004.” Reply 9.

In Curtis Ray’s Declaration that was submitted during prosecution, he submitted a Windows Explorer Screenshot showing the file name of the last computer model generated on January 9, 2004, explaining that from the date of conception through January 27, 2004, he worked in updating the computer

modeling and optical aspects of the design. The quotation is here:

Between the date of concept[ion], approximately July 17, 2003, until the final disclosure was generated on January 27, 2004, I worked together with Eric Grann and Brian Peters in updating the computer modeling of the mechanical and optical aspects of the design. Enclosed as Exhibit B is a printout highlighting the “ZEMAX Optical Design Files” for the “LX4” coupler, which is the acronym for the concept here in issue. Exhibit B indicates that revisions were being made until January 9, 2004. The intervening revisions between July 17, 2003 and January 9, 2004 were continually updated automatically by our computerized design files and cannot be recovered at this time.

EX1002 p. 74–76. Computer models can be found in the Invention Disclosure Forms (*see id.* at 84–116), and the metadata of the last computer model is shown at Exhibit B to the Ray Declaration. EX1002 p. 74-76, 83. Thus, this evidence establishes diligence *prior* to January 9, 2004.

Eric Grann declared that Mr. Ray and he, simultaneously, “updated our prior art search during the period from November 10, 2003 through approximately January 15, 2004.” EX1002 p. 121. The prior art searches are corroborated by the Invention Disclosure Forms, particularly Rev 2 because the prior art is different from the prior art disclosed in Rev 1, and Rev 2 was created on January 27, 2024. *Compare* EX1002 p. 97 *with* p. 109; EX2011 ¶¶8-11. In other words, Petitioner erroneously (a) ignores the Ray declaration concerning computer modeling, and (b)

merely selects the endpoints of the effort to update the prior art search and calls the intervening period a lapse in activity. *In re Enhanced Sec. Research, LLC*, 739 F.3d 1347 (Fed. Cir. 2014) establishes that prior art searching can be considered in a diligence analysis. Who performs the prior art searches is not determinative. While *Correge v. Murphy*, 705 F.2d 1326 (Fed. Cir. 1983) deals with abandonment, these doctrines are related. See *Perfect Surgical Techniques, Inc. v. Olympus Am., Inc.*, 841 F.3d 1004, 1009 (Fed. Cir. 2016) (the “point of the diligence analysis is . . . **to assure that, in light of the evidence as a whole, the invention was not abandoned or unreasonably delayed.**”) (emphasis added).

Petitioner’s suggestion that there is no additional evidence available to support diligent reduction to practice is wholly speculative. Petitioner incorrectly claimed the metadata did not exist; Patent Owner’s submission was specifically in response to that assertion. Even without the metadata, the Examiner found the evidence submitted during prosecution sufficient to establish the earlier priority date. Petitioner has failed to advance a sufficient argument to override the examiner’s express finding concerning the priority date. Alternatively, to the extent there remains any question about additional facts or evidence to support applicants’ diligent efforts to reduce to practice, Patent Owner submits that the discovery procedures available in the co-pending district court action (C.D. Cal. Case No. 8:23-cv-00185-MCS-ADS) are better suited to draw out that evidence.

Date: December 13, 2023

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that on December 13, 2023, that a true and correct copy of the foregoing was served on Counsel for Petitioner via filing through the P-TACTS, as well as by delivering a copy via electronic mail to the following email address(es):

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