

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ACCELIGHT TECHNOLOGIES, INC.,
Petitioner,

v.

APPLIED OPTOELECTRONICS, INC.
Patent Owner.

IPR2025-01567
U.S. Patent No. 10,379,301

**PETITIONER'S REPLY TO PATENT OWNER'S PRELIMINARY
RESPONSE**

(Pursuant to Email Authorization Received on Jan. 29, 2026 (Exhibit 3101))

Patent Owner challenges only the meaning of “carrier” in the Preliminary Response (POPR) and contends that construction of that term is not needed to decide the Petition. POPR, 16–18. Petitioner agrees that “carrier” may be immaterial to the POPR arguments. Nonetheless, Patent Owner’s additional claim construction positions opposing Grounds 1 and 2 merit the Board’s attention and resolution.

A. “Bonding Wire” Should Be Given its Plain and Ordinary Meaning as an Electrical Wire Interconnecting Two Components

Patent Owner asserts a specialized meaning of “bonding wire” to argue Kim lacks such disclosure. POPR, 19-22. But the ’301 patent and its prosecution history provide no special definition, and Patent Owner’s expert offers none that departs from the plain meaning of “bonding wire”: an electrical wire interconnecting two components. Contrary to Patent Owner’s assertion, the Board did not narrowly define “bonding wire” in a prior IPR. *Id.*, 20-21. Rather, the Board simply found that Soldano—asserted as anticipatory in the prior IPR—did not “expressly or inherently” disclose wire bonding when describing an electrical connection. Ex. 2010, 8. In contrast, Kim discloses that optoelectronic diode 140 and light receiving chip 150 are “electrically connected,” Ex. 1004, ¶[0029], and Kim’s Figure 4 shows a wire connecting those components, which Patent Owner’s expert admits “could be taken as a bonding wire,” Ex. 2011, ¶82. This meets the plain meaning of “bonding wire,” and an *ipsis verbis* disclosure is not required for obviousness. *In re Meng*, 492 F.2d 843, 847 (C.C.P.A. 1974) (a drawing may render an invention obvious).

B. The Specification and Claim Language Support Construing “In” to Mean “At” an End of the Carrier (Instead of “On” the Carrier’s End)

Patent Owner misstates that claim 1 requires the optical fiber connector to be disposed “on” the end of the carrier; rather, claim 1 recites that the connector is “disposed in an end of the carrier.” Ex. 1001, 4:63-64. Claim 1 further recites that the connector is connected to an input end of the AWG. *Id.*, 5:2-4. Considering these two limitations together, a POSITA would have understood that the optical fiber connector is connected to the AWG **at** an end of the carrier, which the Petition clearly shows. Pet., 26-30, 60-63. This interpretation is fully supported by the ’301 patent. Ex. 1001, 3:9-14 (“An optical fiber connector 4 may be disposed **at another end of the carrier 8**. ...An input end 61 of the arrayed waveguide grating 6 may be **connected to** the optical fiber connector 4[.]”) (emphases added). Patent Owner implicitly acknowledges that interpreting “in” to mean “inside” or “within” the carrier is technically nonsensical and thus urges “in” to mean “on.” POPR, 22-23. But the specification or prosecution history does not support “on”; rather, the specification supports Petitioner’s construction of “in” as “at” the end of the carrier.

C. “Disposed on” Allows Indirect Placement of the AWG on the Carrier

Patent Owner misconstrues claim 1 as requiring direct placement of the AWG on the carrier. When direct placement is intended, claim 1 expressly states that: “the optoelectronic diodes and the light receiving chip are disposed directly on the same top surface of the end of the carrier.” Ex. 1001, 4:59-62. But claim 1 does not require

the AWG to be disposed **directly** on the top surface of the carrier. *Id.*, 4:65-67. Nor should a direct placement limitation be imported from an embodiment into the claims. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004). Notably, the examiner found that “on” permits intervening elements, e.g., “a book stacked on another book stacked on a table is still ‘on the surface of [the] table’” despite the intervening book. Ex. 1002, 155-56. To distinguish prior art, Patent Owner amended “on” to “directly on” for the optoelectronic diodes and the light receiving chip, but not for the AWG. *Id.*, 174. Likewise, courts construe “on” to include indirect placement with intervening elements. *Bridgelux, Inc. v. Cree, Inc.*, No. C 06–6495, 2008 WL 3843072, at *10-12 (N.D. Cal. Aug. 15, 2008) (construing “on” as “positioned indirectly or directly above,” just as a package is “on” the table even if there was a tablecloth); *Nitride Semiconductors Co., Ltd. v. Lite-On Tech. Corp.*, No. W-21-CV-00183, 2022 WL 17347782, at *5, 7 (W.D. Tex. Nov. 30, 2022) (plain meaning of “formed on” is “formed directly or indirectly above”).

The Petition shows that Kim’s AWG 120 is disposed **indirectly** on the top surface of carrier 180/280 via supporting part 170, and the top surface underlies the midpoint of the AWG. Pet., 28-29. Same is correct for Ho. *Id.*, 61-63 (showing AWG 235 indirectly disposed on top surface of carrier 238 beneath the AWG midpoint).

Dated: February 3, 2026

Respectfully submitted,

/Arpita Bhattacharyya/

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), I certify that on February 3, 2026, a copy of
**PETITIONER'S REPLY TO PATENT'S OWNER'S PRELIMINARY
RESPONSE** was served upon the below-listed counsel by electronic mail:

Jo Dale Carothers - jcarothers@weintraub.com
Eric Caligiuri - ecaligiuri@weintraub.com

Dated: February 3, 2026

By: /Kate Rose/
Kate Rose