

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EOPTOLINK TECHNOLOGY USA INC.,
Petitioner,

v.

APPLIED OPTOELECTRONICS, INC.
Patent Owner.

IPR2026-00123
U.S. Patent No. 11,177,887

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

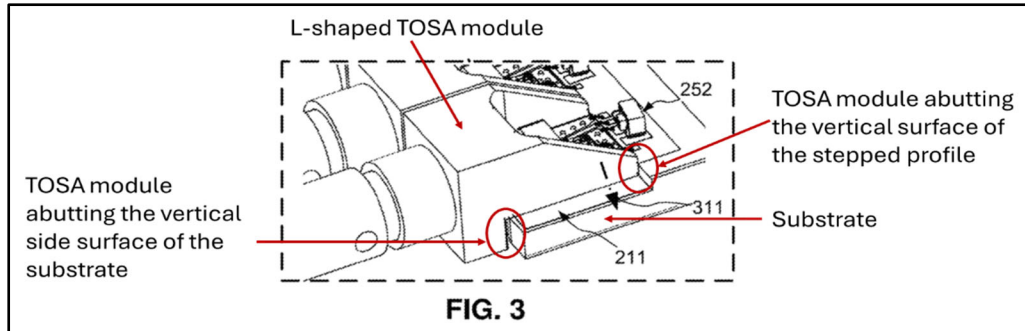
(Pursuant to Email Authorization Received on March 25, 2026)

Patent Owner's Preliminary Response ("POPR") does not identify any claim terms that require construction. *See* POPR, 9. Nevertheless, in opposing Grounds 1, 2, and 3 directed to independent claims 1 and 10, Patent Owner advances claim construction arguments for the term "edge mount." *Id.*, 12, 15–16. Patent Owner's construction of "edge mount" is incorrect and should not be adopted.

I. Claim Construction of "Edge Mount"

"Edge mount" is not a technically complex term. Instead, it carries a plain and ordinary meaning as a component being mounted at the periphery (edge) of a substrate. Indeed, neither the '887 patent nor the prosecution history provides a specialized definition or meaning of the term "edge mount." Rather, the '887 patent simply discloses "a substrate with a stepped profile" for mounting TOSA modules in a recessed orientation via "edge mounting" to provide a mechanical stop that engages surfaces of the TOSA module and limits travel along one or more axes. Ex. 1001, Abstract, 1:19–26; *see also id.* at 6:16–21, 11:28–31.

Nevertheless, Patent Owner incorrectly relies on the exemplary L-shaped profile of TOSA modules 205-1 to 205-4 to assert that "edge mount[ing]" always requires an L-shaped TOSA module, with one edge engaging the vertical surface of step/shoulder 211 (e.g., surface 704 in Figure 7A) and another edge engaging the substrate's vertical rim or side surface. POPR, 12 (citing Ex. 1001, 6:16–34); Ex. 1001, Fig. 3 (annotated below to illustrate Patent Owner's position).



Ex. 1001, Fig. 3 (annotated to show an exemplary L-shaped TOSA module edge-mounted to a recessed/stepped portion of a substrate)

Patent Owner is wrong for at least two reasons. First, the '887 patent does not require the TOSA module to always have an L-shaped profile, or to abut the substrate at two vertical interfaces, as Patent Owner contends. Rather, the '887 patent explains that the TOSA module “can” have “a generally L-shaped profile,” so that “[t]he profile of the base may therefore advantageously align along at least two axis, e.g., the X and Z axis, by simply engaging/bottoming out against surfaces of the step 211, e.g., vertical surface 704[.]” Ex. 1001, 6:25–31 (emphasis added). That is, each TOSA module 205-1 to 205-4 engages only horizontal TOSA mounting surface 702, which is aligned with the X-axis, and vertical surface 704, which is aligned with the Z-axis. *Id.* at 6:25–31, 11:28–43. Engagement of the TOSA module with the rim or side surface of the substrate is not required to “edge mount” the TOSA module. *Id.*

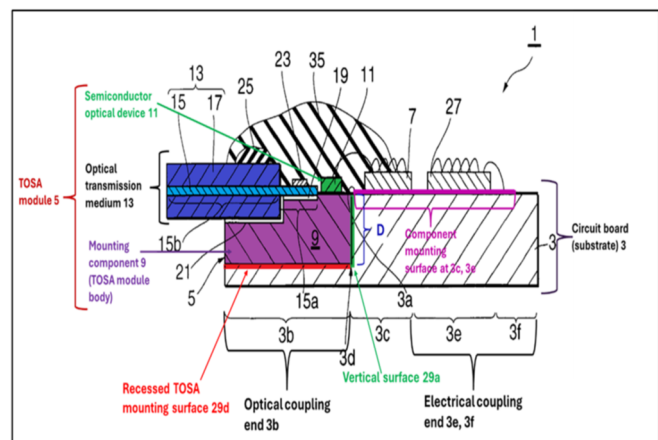
Second, “it is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims

to be so limited.” *Liebel-Flarsheim Co. v. Medrad Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004). Here, there is no indication in the intrinsic record that Patent Owner intended to limit the claims to an L-shaped TOSA module, or to have an edge of the L-shape engaged with the side surface of the substrate. Patent Owner’s interpretation of “edge mount” based on an exemplary embodiment is therefore incorrect.

II. Kuhara Discloses “Edge Mount[ing]” Under the Correct Construction

Kuhara discloses a TOSA module 5 that is edge-mounted at the edge of a recessed/stepped portion 29 of a substrate 3, with a portion of the TOSA module extending beyond the substrate. Pet., 29–30, 46–47. TOSA module 5 is therefore not merely mounted on the substrate’s top surface, as Patent Owner contends. Consistent with the ’887 patent, the TOSA’s horizontal bottom surface engages the **recessed**

TOSA mounting surface 29d and its vertical side surface engages the **vertical surface 29a** of stepped profile 29 as a mechanical stop. Compare Ex. 1001, Figs. 7A, 7B, 8, with Ex. 1004, Figs. 1B, 8B (the ’887 patent and Kuhara showing similar edge-mount).



Pet., 30 (Kuhara Fig. 1B, showing edge-mounting of TOSA module 5 to substrate 3)

Dated: March 31, 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 March 31, 2026, a copy of
**PETITIONER'S REPLY TO PATENT 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: March 31, 2026

By: / Kate Rose /
Kate Rose