

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ACCELIGHT TECHNOLOGIES, INC.,

Petitioner,

v.

APPLIED OPTOELECTRONICS, INC.,

Patent Owner.

Case IPR2026-00093

Patent No. 9,523,826

PATENT OWNER'S PRELIMINARY RESPONSE

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EXHIBITS

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2011	Declaration of Dr. Alan E. Willner

I. INTRODUCTION

Patent Owner Applied Optoelectronics, Inc. (“AOI”) submits this Preliminary Response to the Petition of Accelight Technologies, Inc. (“Accelight”) (“Petitioner”) challenging the patentability of claims 1–7 (the “Challenged Claims”) of U.S. Patent No. 9,523,826 (the “’826 Patent”) (Exhibit 1001). The Director should deny institution because Petitioner has not established a reasonable likelihood that it will prevail on any claim in any Ground raised in the Petition.

Accelight presents three grounds of invalidity against the Challenged Claims.

In Ground 1, Accelight challenges independent claims 1 and 7 and dependent claims 2–6 as anticipated by Mizue (U.S. Patent No. 7,201,520, Ex. 1004).

In Ground 2, Accelight challenges independent claim 1 and dependent claims 2–6 as obvious over Li (China patent CN 203026708 U, Exhibit 1007, and English translation, Exhibit 1005) in view of Liu (China patent CN 201749226 U, Exhibit 1008, and English translation, Exhibit 1006).

In Ground 3, Accelight challenges independent claim 7 as obvious over Li.

As set forth below, Accelight fails to show that the prior art references anticipate or render obvious any of the Challenged Claims. Thus, Accelight has not

established a reasonable likelihood that it will prevail on any claim on any Ground raised in the Petition. Accordingly, AOI respectfully requests that the Director decline to institute *inter partes* review.

II. BACKGROUND

A. '826 Patent

The '826 Patent is entitled "Pluggable Optical Transceiver Module," and issued on December 20, 2016. The '826 Patent issued from U.S. Patent Application No. 14/504,500 filed on October 2, 2014, which claims priority to an earlier filed Taiwan Patent Application, 102135723 A, filed October 2, 2013. *See* '826 Patent (Exhibit 1001), Abstract; *See also* Exhibit 2011 (Declaration of Dr. Alan E. Willner) at ¶¶ 56–59.

The '826 Patent is directed to a pluggable optical transceiver module for insertion into a plugging slot. The pluggable optical receiver includes a main body and sliding component. The main body has two opposite side surfaces and two sliding slots. Each of the two sliding slots is located at one of the two side surfaces. The sliding component includes a linkage arm and two extending arms. Each of the two extending arms is disposed on one of the two sliding slots to have a fastening position and a releasing position. *See id.*; *see also* Exhibit 2011 at ¶ 57.

Figure 1 (reproduced below) shows an example of a pluggable optical transceiver module 10 disclosed in the '826 Patent. Pluggable optical transceiver module 10 is configured to be inserted into a socket 20 to convert optical signals into electronic signals. *See* '826 Patent (Exhibit 1001) at Col. 2:47–53; Exhibit 2011 at ¶ 58.

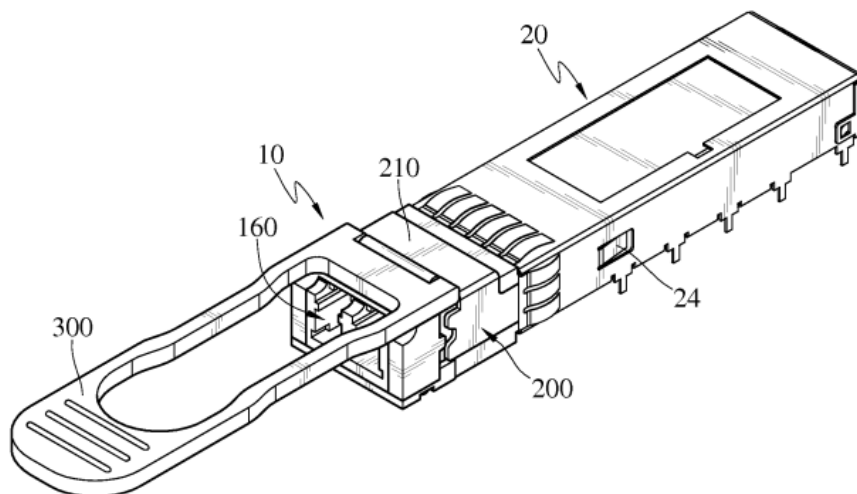
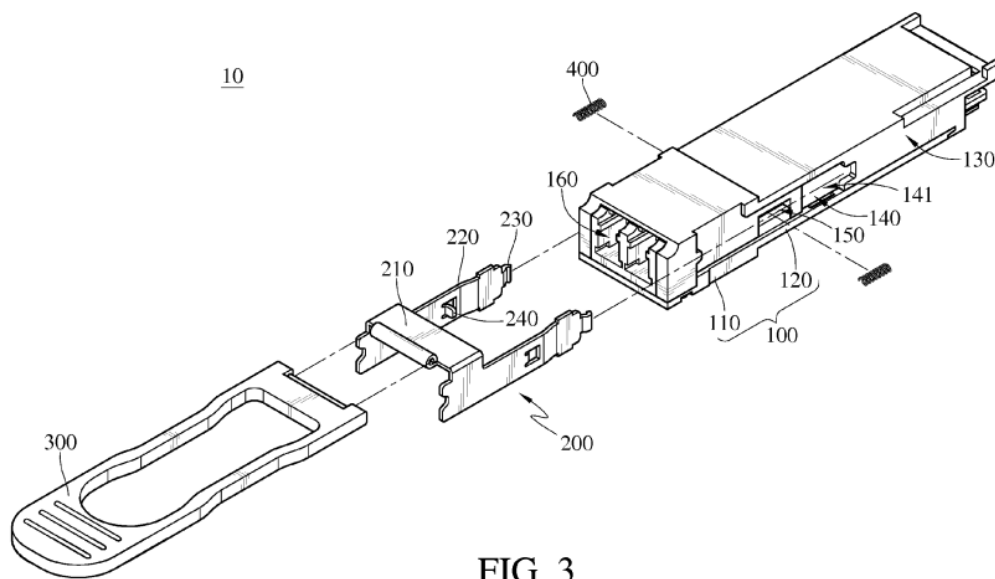


FIG. 1

Figure 3 (reproduced below) shows an exploded view of Figure 1. *See* '826 Patent (Exhibit 1001) at Col. 2:47-53; Exhibit 2011 at ¶ 59.



B. Relevant File History

The application for the '826 Patent was filed on October 2, 2014, as Application No. 14/504,500 with nine claims, including two independent claims. See “File History,” Exhibit 1002; see also Exhibit 2011 at ¶¶ 60–63.

During prosecution, in a non-final Office Action mailed March 31, 2016, the PTO (“Office”) rejected both independent claims and several dependent claims as anticipated under 35 U.S.C. § 102(a)(1) by U.S. Patent Application Publication No. 2011/0081114 to Togami, *et al.* The Office also rejected several dependent claims under 35 U.S.C. § 103 as obvious over Togami in view of U.S. Patent No.

7,201,520 to Mizue, *et al.* See “File History,” Exhibit 1002 at pp. 68-79; *see also* Exhibit 2011 at ¶¶ 61.

On August 1, 2016, AOI filed an amendment amending the two independent claims to add limitations from two dependent claims and cancelled the two dependent claims. See “File History,” Exhibit 1002 at pp. 87-92; *see also* Exhibit 2011 at ¶ 61. One of the limitations added to claim 1 in the amendment was “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component.” See *id.* In conjunction with the amendment, AOI explained that “[e]ven if this structure in Mizue were combined with Togami, however, the spring 30 is exposed and not covered by the arm 20a. See Mizue, FIG. 9. As such, the proposed combination would not result in an elastic component being ‘covered by the extending arm such that the elastic component is confined by the main body and the sliding component,’ as recited in amended independent claims.” See *id.*

A Notice of Allowance was mailed on August 12, 2016. *See* “File History,” Exhibit 1002 at pp. 99-105; *see also* Exhibit 2011 at ¶ 62. The Notice of Allowance states that “[t]he following is an examiner's statement of reasons for allowance: The prior art of record, which is the most relevant prior art known, does not disclose or render obvious the pluggable optical transceiver module defined in claim 1 or the pluggable optical transceiver module defined in claim 9, wherein the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component in combination with all of the limitations of claim 1 or of claim 9, respectively.” *See id* at p. 104; *see also* Exhibit 2011 at ¶ 62.

The '826 Patent issued on December 20, 2016, with seven claims, including two independent claims. *See* “File History,” Exhibit 1002; *see also* Exhibit 2011 at ¶ 63.

C. Prior and Pending Petitions for IPR Filed Against AOI Patents

The '826 Patent was the subject of a prior petition for IPR filed by another party, Cambridge Industries USA, Inc. (“CIG”). CIG’s petition, IPR2025-00433, was filed on January 17, 2025. In that proceeding, AOI filed a request for discretionary denial, which was granted on June 27, 2025. *See* Exhibit 2003. (AOI

filed a similar request on January 13, 2026 in this matter.) CIG then filed a request for rehearing by the Director, which was denied on August 21, 2025. See Exhibit 2004. On October 10, 2025, CIG filed a petition for writ of mandamus in the Court of Appeals for the Federal Circuit, and, on December 9, 2025, the petition was denied. See Exhibit 2010. Thus, a request for IPR of the '826 Patent has already been denied twice and mandamus relief denied.

Petitioner, in addition to this petition for IPR of the '826 Patent, has also filed petitions for IPR of four other AOI patents: U.S. Patent No. 10,379,301 ("301 Patent"); U.S. Patent No. 10,042,116 ("116 Patent"); U.S. Patent No. 10,788,690 ("690 Patent"); and U.S. Patent No. 9,448,367 ("367 Patent") (which is the only patent that has not been the subject of a prior IPR petition). AOI has separately filed Requests for Discretionary Denial of Petitioner's petitions for IPR of the '301, '116, and '367 patents. As to the '367 patent, the Director granted AOI's Request for Discretionary Denial of the Petition on February 3, 2026. As to the '301 and '116 patents, the Director denied AOI's Requests for Discretionary Denial of the Petitions. With respect to the '301 patent, AOI filed its Patent Owner's Preliminary Response on January 7, 2026. At the request of Accelight, the Director/Board authorized Petitioner and AOI to file supplemental briefs on claim

construction, which were filed on February 3, 2026 and February 6, 2026, respectively.

On January 17, 2025, CIG had also previously filed petitions for IPR on the '301 Patent, the '116 Patent, the '690 Patent, and U.S. Patent 10,313,024 (" '024 Patent").¹ The petition on the '116 Patent was also discretionarily denied by the Acting Director on June 27, 2025 along with the '826 Patent. And, the IPR petitions on the '301 Patent and '024 Patent were subsequently denied institution by the Board on substantive grounds. Thus, only one of the five IPR petitions filed by CIG was instituted—the one for the '690 patent.

Thus, of the five AOI patents challenged by Petitioner in IPRs, three are the subject of prior petitions for IPR that have already been denied, including the prior petition for IPR of the '826 Patent, which was discretionarily denied.

D. The Litigation Between AOI and Petitioner Accelight

On December 13, 2024, AOI filed a lawsuit against Petitioner for patent infringement in the case captioned *Applied Optoelectronics, Inc. v. Accelight*

¹ CIG is accused of infringing these and other patents in separate litigation captioned *Applied Optoelectronics, Inc. v. Cambridge Industries, Inc.*, case no. 3:24-cv-01010-JD (N.D. CA).

Technologies, Inc., case no. 4:24-cv-09041-HSG (N.D. CA) (the “Accelight Litigation”). The complaint alleges Petitioner infringes six AOI patents, including the ’826 Patent. In the Accelight Litigation, Accelight alleges that each of the six patents-in-suit is invalid. Accelight has filed petitions for IPR of five of the six patents. On April 15, 2025, AOI served its infringement contentions, stating that Petitioner infringes claims 1–7 of the ’826 Patent. On May 30, 2025, Petitioner served its invalidity contentions. *See* Exhibit 2005.

In its invalidity contentions, Petitioner contends that claims 1–7 are invalid under either 35 U.S.C. § 102 or § 103 based on five separate arguments that each rely on one or more of six different references. The following arguments from Petitioner’s invalidity contentions in the Accelight Litigation are relevant here: (1) obvious over a China patent in view of U.S. Patent No. 7,201,520 to Mizue (Exhibit 1004); (2) anticipated by or obvious over China patent CN 203026708 U to Li (Exhibit 1007 and English translation Exhibit 1005) or obvious over Li in view of Mizue; (3) anticipated by or obvious over Mizue, or obvious over Mizue in view of Li; (4) anticipated by or obvious over a China patent in view of China patent CN 201749226 U to Liu (Exhibit 1008 and English translation Exhibit 1006); and (5) obvious over a China patent in view of Li with or without Mizue. *See* Exhibit 2005, pp. 9–10. Pursuant to the District Court’s Scheduling Order,

between May 30, 2025 and October 7, 2025, Petitioner served invalidity contentions and documents; the parties exchanged proposed terms for claim construction, preliminary constructions and extrinsic evidence, and damages contentions; and the parties filed a Joint Claim Construction Statement and Prehearing Statement, and opening, responsive, and reply claim construction briefs. *See, e.g.*, Exhibit 2006.

On October 9, 2025, the District Court granted the parties' joint motion to stay the case based on Petitioner's petitions for IPR. The Court ordered the parties to regularly file joint status reports, including after any PTAB decision on any of Petitioner's petitions for IPR. *See* Exhibit 2007.

E. The Petition for *Inter Partes* Review

On November 3, 2025, 11 months after AOI filed its complaint in the Accelight Litigation, Petitioner filed its Petition for IPR of the '826 Patent.

In the Petition, Petitioner challenges claims 1–7 of the '826 Patent. Petitioner asserts three grounds of invalidity: (1) claims 1–7 are anticipated by Mizue (U.S. Patent No. 7,201,520, Ex. 1004); (2) claims 1–6 are obvious over Li (China patent CN 203026708 U, Exhibit 1007, and English translation, Exhibit 1005) in view of Liu (China patent CN 201749226 U, Exhibit 1008, and English translation, Exhibit 1006); and (3) claim 7 is obvious over Li.

On October 16, 2025, the PTAB issued its Notice of Filing Date Accorded to Petition and Time for Filing Patent Owner Preliminary Response (Paper 4).

AOI has timely filed Requests to the Director for Discretionary Denial of Petitioner's Petitions for IPR of the '367 Patent (on December 15, 2025), the '301 Patent (on December 4, 2025), the '116 Patent (on December 4, 2025), and the '826 Patent (on January 13, 2026). As to the '367 patent, the Director granted AOI's Request for Discretionary Denial of the Petition on February 3, 2026. As to the '301 and '116 patents, the Director denied AOI's Requests for Discretionary Denial of the Petitions. With respect to the '301 patent, AOI filed its Patent Owner's Preliminary Response on January 7, 2026. At the request of Accelight, the Director/Board authorized Petitioner and AOI to file supplemental briefs on claim construction, which were filed on February 3, 2026 and February 6, 2026, respectively.

F. Alleged Prior Art References

1. Mizue, U.S. Patent No. 7,201,520 (Exhibit 1004)

Mizue discloses an optical module having a pluggable configuration. The optical module can latch with the cage when the optical connector is mated with the receptacle. The optical module is secured in the cage by latching the latch of the cage and the projection of the module. When the optical connector is in the

optical receptacle, the slab of the actuator butts the optical connector such that the optical module cannot be released from the cage. *See* Exhibit 1004 at Abstract; *see also* Exhibit 2011 at ¶ 68.

Figure 7 shows an exploded view of an optical module 1a in accordance with Mizue. The optical module 1a includes a primary unit 10, a holder 12, a bracket 14, a receptacle body 16, a housing 18, an actuator 20 and a bail 22. The optical module 1a includes a spring 30. Exhibit 1004 at Col. 7:4-12; *see also* Exhibit 2011 at ¶ 69.

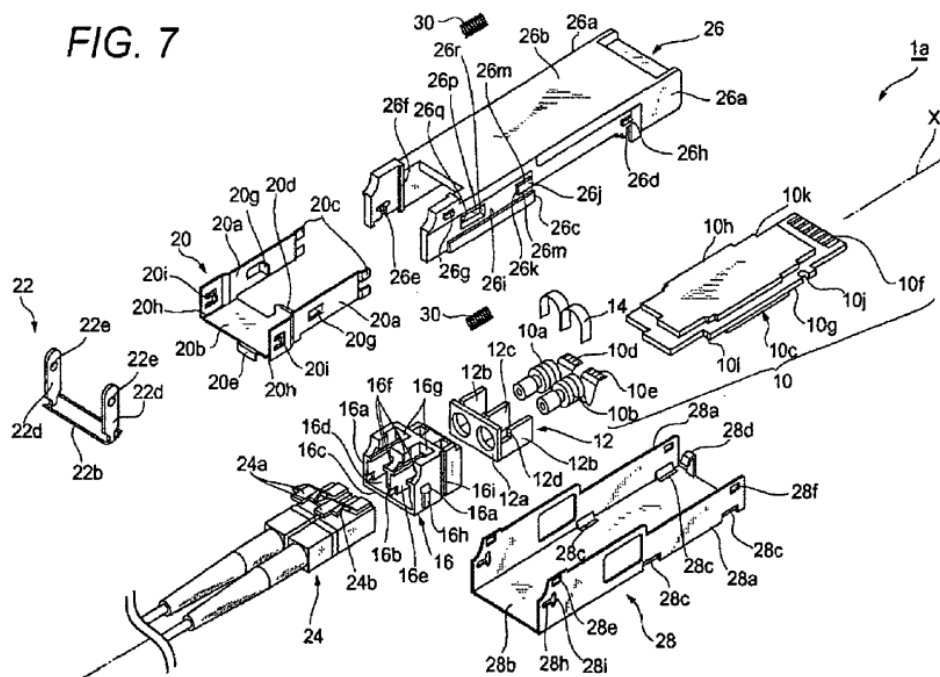


Figure 7 of Mizue

Exhibit 1004, Figure 7.

2. Li, China Patent CN 203026708 U (Exhibit 1007 and English translation, Exhibit 1005)

Li discloses a QSFP module interface device with “an upper cover, a lower cover, and an elastic arm, wherein two opposite sides of the upper cover are connected to the lower cover at connecting positions, which have first recess portions recessed thereon.” “[T]he elastic arm is engaged within the first recess portion, and an unlocking device is arranged between the elastic arm and the first recess portion. The QSFP module interface device is capable of achieving hot plugging.” *See* Exhibit 1005 at Abstract; *see also* Exhibit 2011 at ¶ 80.

3. Liu, China patent CN 201749226 U (Exhibit 1008, and English translation, Exhibit 1006).

Liu discloses a QSFP interface module structure that “includes a module housing and a PCB board installed inside the module housing.” The module housing has a locking mechanism installed thereon to lock the module housing to an external interface. The locking mechanism includes an unlocking member and a resetting spring installed between the unlocking member and the module housing. The front section of the unlocking member is provided with two unlocking plates located on two sides of the module housing. The outer sides of the ends of the two unlocking plates are provided with unlocking protrusions. The protrusion has an

inclined surface. The rear end of the unlocking member is connected to a pulling handle. Liu states that its structure “provides a simpler structure to make plugging and unplugging operations more convenient and enable quick plugging and unplugging operations.” *See* Exhibit 1006, Abstract; *see also* Exhibit 2011 at ¶ 81.

III. DEFINITION OF A PERSON OF ORDINARY SKILL IN THE ART

For the purposes of this Preliminary Response only, AOI applies Petitioner’s proposed level of skill in the art: A person of ordinary skill in the art (“POSITA”) knowledgeable of the technical field of the ’826 Patent would have had “(1) a bachelor’s degree in electrical or electronics engineering or an equivalent degree, and (2) 2–4 years of work experience in optoelectronics, optical networking, optical communications, or a closely-related field.” Petition at p. 9; *see also* Exhibit 2011 at ¶¶ 38–41.

AOI reserves the right to further address Petitioner’s formulation of a POSITA if trial is instituted.

IV. CLAIM CONSTRUCTION

Petitioner asserts that there are no claim terms of the ’826 patent that require claim construction to resolve the dispute in this forum. Petition at pp. 9–10. For purposes of this Preliminary Response only, AOI also asserts that claim

construction is not necessary to resolve the controversy presented by the Petition because Petitioner has not demonstrated a reasonable likelihood of prevailing on any Challenged Claim. *See, e.g.*, Exhibit 2011 at ¶¶ 65–67.

V. PETITIONER HAS NOT ESTABLISHED A REASONABLE LIKELIHOOD OF PREVAILING FOR ANY CHALLENGED CLAIM

Petitioner bears the burden on institution of “demonstrating a reasonable likelihood that it will prevail in showing the unpatentability of at least one claim.” *SMIC, Ams. v. Innovative Foundry Techs., LLC*, IPR2020-00837, Paper 13, 13–14 (PTAB Oct. 9, 2020) (citing 35 U.S.C. §§ 314(a) and 312(a)(3)). In making this showing, Petitioner must identify “the evidence that supports the grounds for the challenge to each claim.”” *Id.* Petitioner has not met that burden.

Here, Petitioner has not shown a reasonable likelihood of success for any challenged claim under any of the three asserted grounds of unpatentability. The Director should thus deny institution.

VI. GROUND 1: PETITIONER HAS NOT SHOWN A REASONABLE LIKELIHOOD THAT CLAIMS 1–7 ARE ANTICIPATED BY MIZUE

Petitioner has not shown that Mizue anticipates any Challenged Claim (claims 1–7) of the ’826 Patent. *See* Exhibit 2011 at ¶ 70.

A. Mizue fails to disclose a “pluggable optical transceiver module, for being inserted into a plugging slot of a socket, the socket comprising two first fastening parts located in the plugging slot.”

The preamble of claim 1 recites “a pluggable optical transceiver module, for being inserted into a plugging slot of a socket, the socket comprising two first fastening parts located in the plugging slot.” *See* Exhibit 1001 at Claim 1; *see also* Exhibit 2011 at ¶ 64. Mizue fails to disclose this limitation.

Petitioner argues that Mizue anticipates claim 1 because Mizue discloses “‘an optical module having a pluggable configuration, which enables to latch with the cage’ of a host device.” *See* Petition at p. 13-15. But Petitioner admits that Mizue “does not include an express discussion of the combination of module 1a with cage 4.” In an attempt to overcome this deficiency in Mizue, Petitioner asserts that “a POSITA would have readily envisaged from Mizue’s disclosure that optical module 1a plugs into cage 4 in the same manner as optical module 1.” *See id.* at p. 14.

However, such an approach using “general knowledge”—a broad category encompassing AAPA, expert declarations, common sense, and other non-patent or non-printed publication evidence—cannot be used to supply a missing claim limitation in an IPR. *See* Exhibit 2008 at p. 1, July 31, 2025 Memorandum from Acting Director Stewart. Thus, as here, if a prior art reference admittedly lacks a

specific element, petitioners can no longer argue that a person of ordinary skill in the art (POSITA) would inherently understand or fill that gap based on background knowledge, and the IPR should be denied. *See id.* (“As a practical matter, enforcement of Rule 104(b)(4) means that applicant admitted prior art (AAPA), expert testimony, common sense, and other evidence that is not ‘prior art consisting of patents or printed publications’ (collectively, ‘general knowledge’) may not be used to supply a missing claim limitation. Per 35 U.S.C. § 312(a)(4), the Board shall deny an IPR petition that fails to comply with Rule 104(b)(4).”). For this reason alone, the Director should deny the Petition as to Ground 1.

B. Mizue fails to disclose “a sliding component comprising a linkage arm and two extending arms, wherein the two extending arms are connected to two ends of the linkage arm, respectively, each extending arm has a second fastening part, the main body is between the two extending arms.”

Claim limitation 1[b][1] recites “a sliding component comprising a linkage arm and two extending arms, wherein the two extending arms are connected to two ends of the linkage arm, respectively, each extending arm has a second fastening part, the main body is between the two extending arms.” *See* Exhibit 1001 at Claim 1; *see also* Exhibit 2011 at 64. Mizue also fails to disclose this limitation.

Petitioner argues that Mizue discloses claim limitation 1[b][1] because Mizue discloses “Optical module 1a includes an actuator 20 (sliding component)

comprising two arms 20a (extending arms), and a center portion 20b and front side walls 20h that together form a linkage arm, and wherein the two extending arms are connected to two ends of the linkage arm.” *See* Petition at p. 18-21. But Petitioner admits that “Mizue does not expressly disclose the contact between slabs 20c (second fastening parts) and latches 4e (first fastening parts) of cage 4 with respect to optical module 1a.” In an attempt to overcome this deficiency in Mizue, Petitioner again asserts that “a POSITA would ‘at once envisage’ that contact between slabs 20c (second fastening parts) and latches 4e (first fastening parts) of optical module 1a is the same as the contact between those elements of optical module 1” and “a POSITA would have readily recognized slabs 20c on extending arms 20a of optical module 1a as second fastening parts that engage with latches 4e (first fastening parts) of cage 4.” *See id.* at p. 20.

However, such an approach using “general knowledge”—a broad category encompassing AAPA, expert declarations, common sense, and other non-patent or non-printed publication evidence—cannot be used to supply a missing claim limitation in an IPR. *See* Exhibit 2008 at p. 1, July 31, 2025 Memorandum from Acting Director Stewart. Thus, as here, if a prior art reference admittedly lacks a specific element, petitioners can no longer argue that a person of ordinary skill in the art (POSITA) would inherently understand or fill that gap based on background

knowledge, and the IPR should be denied. *See id.* (“As a practical matter, enforcement of Rule 104(b)(4) means that applicant admitted prior art (AAPA), expert testimony, common sense, and other evidence that is not ‘prior art consisting of patents or printed publications’ (collectively, ‘general knowledge’) may not be used to supply a missing claim limitation. Per 35 U.S.C. § 312(a)(4), the Board shall deny an IPR petition that fails to comply with Rule 104(b)(4).”). For this reason alone, the Director should deny the Petition as to Ground 1.

C. Mizue fails to disclose “the two extending arms are slidably disposed on the two sliding slots to have a fastening position and a releasing position.”

Claim limitation 1[b][2] recites “a sliding component comprising a linkage arm and two extending arms, wherein the two extending arms are connected to two ends of the linkage arm, respectively, each extending arm has a second fastening part, the main body is between the two extending arms.” *See* Exhibit 1001 at Claim 1; *see also* Exhibit 2011 at ¶ 64. Mizue also fails to disclose this limitation.

Petitioner argues that Mizue discloses claim limitation 1[b][2] because Mizue discloses “[e]xtending arms 20a of actuator 20 are disposed on the sliding slots (grooves 26i) of the main body (upper body 26).” *See* Petition at p. 21-22. But Petitioner again relies on a POSITA, stating “[a]s discussed regarding claim term 1[b][1], a POSITA would ‘at once envisage’ that engagement between

extending arms 20a and grooves 26i would be same as the engagement between those elements of optical module 1.” *See id.*

In other words, in an attempt to overcome this deficiency in Mizue, Petitioner again asserts that “a POSITA would ‘at once envisage’ that contact between slabs 20c (second fastening parts) and latches 4e (first fastening parts) of optical module 1a is the same as the contact between those elements of optical module 1” and “a POSITA would have readily recognized slabs 20c on extending arms 20a of optical module 1a as second fastening parts that engage with latches 4e (first fastening parts) of cage 4.” *See id.* at p. 21. Petitioner further states, “[a] POSITA would have understood that extending arms 20a of optical module 1a are disposed on the sliding slots (grooves 26i) in the same manner as in optical module 1.” *Id.* at 22.

However, as noted, such an approach using “general knowledge”—a broad category encompassing AAPA, expert declarations, common sense, and other non-patent or non-printed publication evidence—cannot be used to supply a missing claim limitation in an IPR. *See Exhibit 2008 at p. 1, July 31, 2025 Memorandum from Acting Director Stewart.* Thus, as here, if a prior art reference admittedly lacks a specific element, petitioners can no longer argue that a person of ordinary skill in the art (POSITA) would inherently understand or fill that gap based on

background knowledge, and the IPR should be denied. *See id.* (“As a practical matter, enforcement of Rule 104(b)(4) means that applicant admitted prior art (AAPA), expert testimony, common sense, and other evidence that is not ‘prior art consisting of patents or printed publications’ (collectively, ‘general knowledge’) may not be used to supply a missing claim limitation. Per 35 U.S.C. § 312(a)(4), the Board shall deny an IPR petition that fails to comply with Rule 104(b)(4).”). For this reason alone, the Director should deny the Petition as to Ground 1.

D. Mizue fails to disclose “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component.”

Mizue does not disclose the limitation of claim 1 requiring “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component.” *See* Exhibit 2011 at ¶¶ 71–72.

Independent claim 7 also includes this limitation, requiring “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component.” *Id.* at ¶¶ 71, 73.

This claim limitation in claim 1 and claim 7 requires that the elastic component “is covered by the extending arm” *in addition to* being “confined by the main body and the sliding component.” *See, e.g.,* Exhibit 2011 at ¶ 74. As shown in Figures 8 and 9 (reproduced below with annotations), Mizue does not disclose this claim limitation. *See id.*

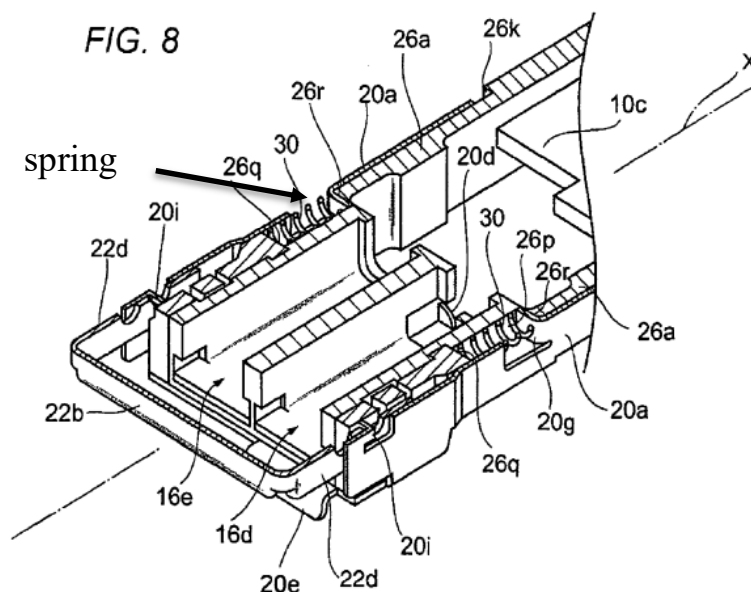




Figure 9 of Mizue

Petitioner points to spring 30 in Mizue as the asserted elastic component. *See* Petition at pp. 26-29; *see also* Exhibit 2011 at ¶ 75. Petitioner points to “extending arm 20a of actuator 20” as the asserted “sliding component” of the ’826 patent. *See* Petition at p. 28. However, as shown in Mizue’s Figures 8 and 9, spring 30 is not covered by the sliding component as identified by Petitioner, i.e. “extending arm 20a of actuator 20” in Mizue. *See, e.g.*, Exhibit 2011 at ¶ 75. Indeed, Petitioner acknowledges that at most in Mizue “elastic component 30 is covered *partially* by

extending arm 20a when the actuator is in the fastening position.” *See* Petition at p. 28 (emphasis added). Importantly, this is because the spring 30 is fully exposed when the extending arm 20a is at the releasing position. *See, e.g.* Exhibit 1005 at FIGs. 8, 9; Col. 7:50-53; *see also* Exhibit 2011 at ¶ 75.

Thus, the spring 30 in Mizue is not *covered* by the extending arm as required by claims 1 and 7. Therefore, Mizue does not meet the required limitation of claims 1 and 7 that “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component.” Therefore, Petitioner has not shown that Mizue anticipates claim 1 or claim 7 of the ’826 Patent. *See, e.g.,* Exhibit 2011 at ¶ 76.

E. Mizue fails to disclose Claims 2–6

Claims 2–6 of the ’826 Patent depend from claim 1 and thus also contain this limitation. *See* Exhibit 2011 at ¶ 77.

Because Petitioner has not shown that Mizue anticipates claim 1, Petitioner also has not shown that Mizue anticipates claims 2–6. *See, e.g.,* Exhibit 2011 at ¶

78. Accordingly, Petitioner has not shown that Mizue anticipates any of the Challenged Claims (claims 1–7) of the '826 Patent. For at least these reasons, Petitioner is unlikely to succeed on the merits of Ground 1. *See, e.g.*, Exhibit 2011 at ¶ 79.

VII. GROUND 2: PETITIONER HAS NOT SHOWN A REASONABLE LIKELIHOOD THAT CLAIMS 1–6 ARE OBVIOUS OVER LI IN VIEW OF LIU

Petitioner has not shown that Li in view of Liu (the “Li-Liu Combination”) renders obvious any of claims 1–6 of the '826 patent. *See* Exhibit 2011 at ¶ 82.

- A. The Li-Liu combination fails to disclose “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component.”**

The Li-Liu Combination fails to disclose “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and

the sliding component.” *See* Exhibit 2011 at ¶ 83.

Petitioner relies solely on Li in the Li-Liu Combination for this claim limitation. Petitioner states that “Li discloses a return spring” as the elastic component. *See* Petition at p. 66; *see also* Exhibit 2011 at ¶ 84. However, the return spring in Li is placed between the second limiting surface and the limited part, which is the opposite of the limitation in claim 1. Claim 1 expressly requires the elastic component to be “between the first limiting surface and the limited part.” *See* Exhibit 1001 at Col. 5:50–55; *see also* Exhibit 2011 at ¶ 84.

Therefore, Li in view of Liu does not meet the required limitation that “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component.” As a result, the Li-Liu Combination does not render claim 1 obvious. *See* Exhibit 2011 at ¶ 85.

B. The Li-Liu Combination fails to disclose Claims 2–6.

Claims 2–6 of the ’826 Patent depend from claim 1 and thus also contain this limitation. *See, e.g.*, Exhibit 2011 at ¶ 86. Because Petitioner has not shown

that the Li-Liu Combination renders claim 1 obvious, Petitioner also has not shown that the Li-Liu Combination renders claims 2–6 obvious. *See id.* at ¶ 87.

Accordingly, Petitioner has not shown that the Li-Liu Combination renders obvious any of the claims (claims 1–6) of the '826 Patent challenged in Ground 2.

For at least these reasons, Petitioner is unlikely to succeed on the merits of Ground 2. *See id.* at ¶ 88.

VIII. GROUND 3: PETITIONER HAS NOT SHOWN A REASONABLE LIKELIHOOD THAT CLAIM 7 IS OBVIOUS OVER LI

For the same reasons as for claim 1 in Ground 2, claim 7 is not obvious over Li. Specifically, Petitioner fails to show a reasonable likelihood that Li renders obvious claim 7 of the '826 patent, which is challenged in Ground 3. *See* Exhibit 2011 at ¶ 89.

- A. Li fails to disclose “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component.”**

Petitioner has not shown that claim 7 of the '826 patent is obvious over Li. *See* Exhibit 2011 at ¶ 89.

Li fails to disclose “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component.” *See* Exhibit 2011 at ¶ 90.

Petitioner argues that Li discloses this claim limitation. *See* Petition at 86–89; *see also* Exhibit 2011 at ¶ 91. As discussed above with regards to Ground 2, Petitioner states that “Li discloses a return spring” as the elastic component. *See id.* However, the return spring in Li is placed between the *second* limiting surface and the limited part, not “between the first limiting surface and the limited part” as claimed in claim 1. *See* Exhibit 1006; *see also* Petition at 86–89; *see also* Exhibit 2011 at ¶ 91. Claim 1 expressly requires the elastic component to be “between the *first* limiting surface and the limited part.” *See* Exhibit 1001 at Col. 5:50–55 (emphasis added).

Therefore, Li does not disclose the required limitation that “an elastic component, wherein the main body has a first limiting surface and a second limiting surface forming the limiting space, the first limiting surface is closer to the

head part than the second limiting surface, and the elastic component is located in the limiting space and between the first limiting surface and the limited part and is covered by the extending arm such that the elastic component is confined by the main body and the sliding component.” *See* Exhibit 2011 at ¶ 92. As a result, Li does not render claim 7 obvious.

IX. RESERVATION OF RIGHTS

Should the Director decide to institute an *inter partes* review, AOI reserves all rights to make additional arguments in, and present claim constructions and evidence with, its Patent Owner Response. AOI’s silence on any particular claim or limitation at this time is not a concession that the Petition’s discussion of that claim or limitation is properly based. AOI also reserves the right to dispute the level of ordinary skill in the art if the Director decides to institute *inter partes* review. Accordingly, AOI reserves the right to submit additional or alternative arguments of patentability, and nothing in this Preliminary Response acts or should be construed to act as an admission, acquiescence, or estoppel on the merits of the Petition.

X. CONCLUSION

For the reasons set forth above, AOI respectfully requests that the Director

deny institution of the Petition for all Challenged Claims of the '826 Patent.

Dated: February 13, 2026

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CERTIFICATE OF WORD COUNT

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the Microsoft Office word count including all footnotes for the foregoing Patent Owner's Preliminary Response, excluding the table of contents, table of authorities, certificate of word count, appendix and certificate of service, totals 6064 words, which is less than the 14,000 words allowed under 37 C.F.R. § 42.24(b)(1).

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CERTIFICATE OF SERVICE

The undersigned hereby certifies service on the Petitioner, pursuant to 37 C.F.R. § 42.6(e) and by agreement of counsel, by electronic (e-mail) delivery of a true copy of the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE**, which was served on February 13, 2026 to the following Counsel for Petitioner via e-mail:

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