UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAMBRIDGE INDUSTRIES USA, INC.,

Petitioner

v.

APPLIED OPTOELECTRONICS, INC.,

Patent Owners

Case: IPR2025-00435

U.S. Patent No. 10,042,116

PETITIONER'S OPPOSITION TO PATENT OWNER'S REQUEST FOR DISCRETIONARY DENIAL OF INSTITUTION

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TABLE OF EXHIBITS

Exhibit	Short Name	Description
Ex. 1001	’116 Patent	U.S. Patent No. 10,042,116
Ex. 1002	’116 File History	File History of U.S. Patent No. U.S. Patent No. 10,042,116
Ex. 1003	Kirk Declaration	Declaration of Dr. Andrew G. Kirk
Ex. 1004	Kirk CV	*Curriculum Vitae* of Dr. Kirk
Ex. 1005	Soldano	U.S. Patent No. 9,768,901
Ex. 1006	Lurie	U.S. Patent No. 5,351,327
Ex. 1007	Tomita	U.S. Patent No. 4,978,193
Ex. 1008	Shen	U.S. Patent Pub. No. US 2016/0349451
Ex. 1009	Shen provisional	U.S. Prov. Patent Appln. No. 62/166015
Ex. 1010	Kanazawa	Japanese Patent Pub. JP 2012-034314A
Ex. 1011	–	Kanazawa English translation
Ex. 1012	Sasaki	Japanese Patent Pub. JP 2003-215371A
Ex. 1013	–	Sasaki English translation
Ex. 1014	Claim Terms	Joint Claim Construction And Pre-Hearing Statement in *Applied Optoelectronics, Inc. v. Cambridge Industries USA, Inc.*, No. 3:24-cv-01010-JD (N.D. Cal.)
Ex. 1015	Scheduling Order	Scheduling Order dated August 7, 2024, in *Applied Optoelectronics, Inc. v. Cambridge Industries USA, Inc.*, No. 3:24-cv-01010-JD (N.D. Cal.)
Ex. 1016	Excerpt from Infringement Claim Charts	Excerpt from Patent Owner’s L.R. 3-1 & 3-2 Disclosures, June 6, 2024, in *Applied Optoelectronics, Inc. v. Cambridge Industries USA, Inc.*, No. 3:24-cv-01010-JD (N.D. Cal.)

Exhibit	Short Name	Description
Ex. 1017	Pisano Declaration	Declaration of Nicola A. Pisano collecting exemplary Stay Orders entered by Judge Haywood Gilliam and Data Showing Success Rates for Motion to Stay
Ex. 1018	Interim Process FAQS	FAQs for Interim Processes for PTAB Workload Management
Ex. 1019	Claim Construction Reply Brief	Plaintiff's Reply Claim Construction Brief, D.I. 37, in *Applied Optoelectronics, Inc. v. Cambridge Industries USA, Inc.*, No. 3:24-cv-01010-JD (N.D. Cal.)

I. INTRODUCTION

Petitioner Cambridge Industries USA, Inc. ("Petitioner" or "CIG USA") submits this brief in opposition to Patent Owner's Request for Discretionary Denial of the instant IPR petition for the '116 patent. Patent Owner's brief mentions, but then ignores, that the parallel district court litigation between Patent Owner and Petitioner was indefinitely ***stayed*** by Judge Donato on April 4, 2025, pending outcome of the PTAB proceedings. That fact, which satisfies *Fintiv* factor 1, weighs heavily against discretionary denial. *Fintiv* factors 2-5, which are subsumed in factor 1, likewise do not support denial. For example, Patent Owner's claim that the parties have invested substantial resources in the parallel proceeding lacks merit; prior to entry of the stay, the parties did no more than was required by the Patent Local Rules of the U.S. District Court for the Northern District of California, and nothing since entry of the stay.

Patent Owner tries to conflate its later-filed district court case against a ***different*** and unrelated defendant (Accelight Technologies), pending before a ***different*** district court judge (Judge Gilliam), as supporting discretionary denial. Yet Judge Gilliam routinely stays litigation for PTAB proceedings and scheduled his *Markman* hearing for October 31, 2025, well after the expected institution decision here. If this IPR is instituted, Judge Gilliam surely will grant Accelight's expected request to stay that case; that case too is unlikely to reach its *Markman* hearing.

Patent Owner's host of other considerations under *Fintiv* factor 6 and the Director's Memo, Exhibit 2001, are many shades weaker than its "judicial efficiency" claim. For example, Patent Owner derides Petitioner's reliance on expert testimony. Yet that testimony serves the approved purpose of guiding the Board to the relevant portions of the cited references. It does not, as in *Next Caller* (cited by Patent Owner) substitute unbased opinion for claim limitations missing from the cited references. The remaining factors enumerated in Ex. 2001 likewise are either neutral or do not support discretionary denial.

Patent Owner's contention that the Petition lacks merit also fails. Soldano (U.S. 9,768,901) and Shen (US2016/0349451A1) were not evaluated by the Office in connection with prior art rejections during prosecution of the '116 patent. Instead, they were submitted in an Information Disclosure Statement and checked off by the Examiner as considered, along with all of the submitted prior art, contemporaneous with preparation of the Notice of Allowance.

As demonstrated in the Petition, Soldano ***anticipates*** the limitations of all claims of the '116 patent, thus proving the Examiner materially erred in failing to appreciate the disclosure of those references. Shen also anticipates the '116 patent, and thus necessarily discloses the same elements as the '116 patent. But that similarity cannot possibly disqualify Shen as "substantially the same art" as Soldano when neither

reference was fully considered. None of the other references relied upon in the Petition, Kanazawa (JP 2012-034314A), Sasaki (JP 2003-215371A), Lurie (U.S. 5,351,327) or Tomita (U.S. 4,978,193) were ever before the Office. Kanazawa and Sasaki render obvious the challenged claims, while Lurie and Tomita demonstrate that other claimed features were notoriously old in the optical communications art.

The Director (and Board) should institute the instant IPR to effectuate the purposes of the AIA and prevent targeting of legitimate businesses with improvidently granted low-quality patents.

II. DISCRETIONARY DENIAL IS NOT WARRANTED

A. The *Fintiv* Factors Weigh Heavily Against Discretionary Denial

Neither the factors listed in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper No. 11 at 5-6 (P.T.A.B. Mar. 20, 2020) (precedential) ("*Fintiv*") nor the Director's Memorandum (Exhibit 2001) favor discretionary denial of this Petition. Here, *Fintiv* factors 1-5 disfavor a discretionary denial because Patent Owner's parallel litigation against Petitioner is stayed pending resolution of these PTAB proceedings. Moreover, Patent Owner's litigation against unrelated entity Accelight, pending before a different judge, likely will be stayed. Patent Owner also misstates the significance of *Fintiv* factor 6 considerations and the additional factors set forth in Ex. 2001, which are either neutral or do not support a discretionary stay.

1. All of the *Fintiv* Factors Disfavor Discretionary Denial

Tacitly admitting that *Fintiv* factor 1 (Stay) militates strongly against a discretionary denial, Patent Owner focuses on other *Fintiv* factors, without ever discussing the first *Fintiv* factor: "whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted." There is an obvious reason why that the stay factor is listed first – if a stay has been granted (as here), the rest of the *Fintiv* factors become much less important, if not entirely moot.

Patent Owner addresses *Fintiv* factors 2-6, out of order, to distract as much as possible from the fact that Judge Donato has stayed Patent Owner's parallel litigation against Petitioner pending outcome of the PTAB proceedings. Patent Owner instead suggests that its district court litigation against an unrelated entity (Accelight Technologies) before a different judge (Judge Gilliam) should take precedence in the *Fintiv* analysis. But as explained below, Judge Gilliam routinely stays his litigations when the underlying patents are (or may be) involved in PTAB proceedings. Petitioner addresses *Fintiv* factors 1-6 below in numerical sequence.

a. Factor 1 (Stay) Weighs Heavily Against Discretionary Denial

As Patent Owner acknowledges, Paper No. 8 at 11, the parallel district court proceeding between it and Petitioner was stayed on April 4, 2025. This factor militates strongly against discretionary denial here. *See, e.g.*, *Fintiv*, fn 9: *Precision Planting,*

LLC v. Deere & Co., IPR2019-01052, Paper No. 19 at 10 (P.T.A.B. Jan. 7, 2020) (finding that the district court stay of the parallel district court case ***rendered moot*** the patent owner's argument for discretionary denial of the petition); *Apotex Inc. v. UCB Biopharma Sprl*, IPR2019-00400, Paper No. 17 at 31–32 (P.T.A.B. July 15, 2019) (finding that the district court ***stay of the parallel district court case predicated on the inter partes review means that the trial will not occur before the Board renders a final decision***). Judge Donato has requested a status report on July 7, 2025; there is no reason to believe he would lift the stay just weeks before the institution decision.

Patent Owner makes much of its district court litigation against Accelight Technologies, pending before Judge Gilliam in the Northern District of California. As shown in Exhibit G to Exhibit 1017, Judges in the Northern District of California typically grant stays after IPR institution, with 76% of all post-institution motions to stay pending *inter partes* review granted or granted in part over the past 12 years. In particular, as shown in Exhibit H to Exhibit 1017, ***Judge Gilliam has granted all such motions*** since 2016, and there is no reason to suspect he will not do so again here. Exhibits A-F to Exhibit 1017 provide examples of Judge Gilliam's routine orders staying his litigations pending the outcome of PTAB proceedings. The Scheduling Order (Ex. 2003) entered by Judge Gilliam sets the date of his claim construction hearing for October 31, 2025, two months *after* the expected institution date for this

IPR, August 28, 2025. Patent Owner and Accelight will not have submitted their claim construction briefs by the institution date, providing ample time for Accelight to request a stay, which Judge Gilliam surely will grant if this IPR proceeds.[1] This factor weighs heavily against discretionary denial.

b. Factors 2 (Trial Date) and 3 (Parallel Proceedings) Are Moot

In view of the stay in Petitioner's case pending resolution of this IPR, and expected stay in *Accelight*, concern about the trial dates in parallel district court proceedings are moot.[2] Following successful conclusion of this IPR, Judges Donato and Gilliam may set trial dates for any remaining patents. But even if some aspect of the '116 patent survives, the resulting litigations will be greatly streamlined, resulting in judicial economy and litigation savings to the Petitioner, and probably Accelight as well. *Fintiv* factors 2 and 3 thus weigh against discretionary denial.

Prior to entry of the stay, the parties did no more in the parallel litigation than the exchanges required to comply with the Patent Local Rules for the United States

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[1] Patent Owner implies that Judge Gilliam, at a Case Management Conference in *Accelight*, decided to "move forward" after submission of a Notice reporting filing of the instant IPRs by Petitioner. However, neither the Notice nor any aspect of the IPRs was mentioned at that 8-minute conference. *See* Exhibit 1017, ¶¶ 3-4.

[2] The entire analysis set forth in *Next Caller, Inc. v. TrustID, Inc.*, IPR2019-00963, Paper No. 8 (P.T.A.B. Oct. 28, 2019), was based on the advanced state of the parallel litigation, and absence of a stay of that litigation.

District Court for the Northern District of California. Neither party identified an expert for their claim construction briefing, few documents were produced in response to discovery requests, and no depositions were scheduled or taken prior to entry of the stay. Contemporaneous with entry of the stay, Judge Donato vacated the scheduled *Markman* hearing. Contrary to Patent Owner's assertion, the parties invested little effort in the parallel litigation prior to the stay (and none since).[3] No greater effort should be expected in the *Accelight* case, as it is very likely to be stayed once the defendant there requests a stay.

In situations like the one pending here, non-identicality of the Defendant in an on-going parallel proceeding and the Petitioner weighed against discretionary denial. *See Fintiv* at fn. 26, citing to *Nalox-1 Pharms., LLC. v. Opiant Pharms., Inc*., IPR2019-00685, Paper No. 11 at 6 (P.T.A.B. Aug. 27, 2019) (distinguishing *NHK* because in *NHK*, "the Board considered 'the status of the district court proceeding between the parties'" and, in the *Nalox-1* case, the petitioner was not a party to the parallel district

[3] Patent Owner faults Petitioner for waiting eleven months to file its IPR petition, notwithstanding the one-year provision of 35 U.S.C. § 314(a) and the guidance previously in effect. Further, Petitioner had no reason to file sooner as Patent Owner's settlement demand amounted to a fraction of Petitioner's cost to challenge the asserted patents via IPRs. Only after Patent Owner's settlement demands grew exponentially, at a court-ordered mediation conducted in late August 2024, did it became evident that the parallel litigation could not be resolved.

court litigations). Here, Petitioner's district court litigation is stayed and Petitioner is not a party to the on-going district court litigation, which is likely also to be stayed.

c. Factor 4 (Issue Overlap) Disfavors Discretionary Denial

Stay of Petitioner's parallel proceeding, together with Petitioner's stipulation, discussed below, obviates any concern about the issue overlap of *Fintiv* factor 4, even if Petitioner's parallel litigation someday, post-IPR, resumes.

Judge Donato evidently stayed Patent Owner's litigation against Petitioner to defer to the Board's technical expertise. Petitioner also stipulated in its Petition, pursuant to guidance in effect when the Petition was filed, that it would not pursue invalidity against the asserted claims in the district court using the specific combination of prior art references presented in this Petition. *See* Paper No. 2 at 60. Patent Owner's contention that the litigation, if ever resumed, will address the same issues as the Petition is illusory. If this IPR proceeds, either there will be no further litigation on the '116 patent or it will be highly streamlined.

Patent Owner further contends, without evidence, that there may be substantial issue overlap in its *Accelight* case. Petitioner has no knowledge of the prior art relied upon by Accelight in that case, nor has Patent Owner presented evidence that Accelight is relying on the same prior art as Petitioner proffered in its now-stayed litigation. As *Accelight* is likely to be stayed upon request, this factor is neutral.

d. Factor 5 (Same Party) Does Not Support Discretionary Denial

Petitioner is the defendant in the ***now-stayed*** case before Judge Donato, rendering this factor neutral, if not entirely moot. Petitioner is not remotely related to the defendant in Patent Owner's *Accelight* case. And as discussed above, that case too is very likely destined to be stayed.

e. Factor 6 (Other Considerations) Disfavors Discretionary Denial

All other factors discussed in *Fintiv* or the Director's Memo, Exhibit 2001, are neutral or favor denial of Patent Owner's request for discretionary denial, including those related to the Petition merits, discussed separately below.

For example, citing *Next Caller* and Ex. 2001, Patent Owner argues, Paper No. 8 at 42, that Petitioner's expert declaration by Dr. Andrew Kirk, Ex. 1003, is a basis for discretionary denial. In contradistinction to the expert declaration in *Next Caller*, Dr. Kirk's declaration performs the ***approved*** function of directing the Board to relevant passages of the cited references. *See, e.g.*, FAQs for Interim Processes for PTAB Workload Management, Ex. 1018 at ¶ 21. Dr. Kirk does not, as did the expert in *Next Caller*, proffer opinion to supply critical limitations without disclosing the facts or data on which his opinion is based. *See Next Caller*, IPR2019-00963, Paper No. 8 at 31-32. Proper use of expert testimony here does not support discretionary denial.

Whereas Petitioner had not invested substantial effort in the parallel litigation prior to entry of the stay, Petitioner made a significant investment of time and resources to prepare and file this IPR. Patent Owner should not be permitted to frustrate that effort by relying on its later case against an unrelated party. If instituted, this IPR will enhance judicial economy by saving ***two*** Courts from repeating the same work of construing the claims and holding trials, while also reducing the likelihood of inconsistent jury verdicts. Institution of this IPR likely will save Petitioner CIG USA (and probably also Accelight) millions of dollars litigating their respective district court cases, and may obviate the need for the trials on the ’116 patent.

Patent Owner’s further contention, Paper No. 8 at 43, that litigation between Patent Owner and Petitioner may one day resume on Patent Owner’s **other** patents, following conclusion of this IPR, does not support discretionary denial. As Patent Owner points out, Petitioner has challenged all of the claims of five of the eight patents asserted in the now-stayed parallel litigation. If Petitioner’s IPRs proceed, the litigation workload of the court and the parties will be substantially reduced, if not completely obviated, thereby effectuating the purpose of IPR proceedings.

Patent Owner further asserts, Paper No. 8 at 22, that “there are settled expectations of the parties that the ’116 patent is valid and enforceable.” While this factor, enumerated in the Director’s memo, is not explained in detail, it only makes

sense in the context of an implicit or explicit understanding that ***both*** parties regarded the claims as valid, e.g., as reflected in a license agreement. It cannot be the case that a never-asserted patent achieves a patina of validity simply by the passage of time. Moreover, Petitioner had no expectation or belief that the ’116 patent was or is valid. Apart from Patent Owner’s letter sent to a different entity just prior to suit, Petitioner was unaware of the ’116 patent until the parallel proceeding was filed.

Finally, Patent Owner contends that the absence of a change in the law affecting patentability supports discretionary denial. Paper No. 8 at 44. Yet withdrawal of the previous *Fintiv* guidance constitutes a significant change in the relevant law, potentially greatly reducing the utility of the IPR procedure by elevating timing considerations over the importance of previously unseen prior art that supports a compelling ground for invalidity. In view of the strong merits of this challenge, this factor is neutral.

B. The Merits of the Petition Are Compelling

The ’116 patent includes two independent claims: claim 1 and claim 12. Patent Owner takes issue with Petitioner’s invalidity analysis of claim 1, but fails to identify any disagreement with Petitioner’s invalidity analysis of claim 11. Paper No. 8 at 28-39. As Petitioner’s invalidity analysis of claim 11 stands unchallenged, this factor alone favors denial of Patent Owner’s request for discretionary relief. Further, Patent

Owner's criticisms of Petitioner's invalidity analysis of claim 1, based on the term "substrate," demonstrate Patent Owner's inconsistent positions for claim construction for purposes of infringement and assessing validity, further weighing in favor of denying Patent Owner's request for discretionary denial, as discussed below.

1. The Cited References Anticipate Under a *Philips*-type Construction

The flaws in Patent Owner's criticisms become manifest when considering Patent Owner's treatment of the prosecution history and its proposed conflicting constructions of "substrate." Patent Owner added the substrate-related limitations to claim 1 during prosecution to overcome prior art and secure allowance of the '116 patent. Ex. 1002 at 43. That amendment ***requires*** that the "substrate" be part of the PLC, specifically, the base material upon which the layers of the PLC are formed. See Ex. 1002 at 43, 48, and 12; Ex. 1001 at 3:35-38; see also id. at FIG. 5A (item 502), 9:21-50. Indeed, Patent Owner argues to the Board that "the '116 Patent describes that the AWG is ***formed*** on a substrate." Paper No. 8 at 31 (emphasis added).

In its infringement contentions in the district court action, however, Patent Owner denies the relevance of the prosecution history of the '116 patent, and instead argues that the "substrate" should be accorded a "plain and ordinary meaning," which Patent Owner defines as "a supporting structure for an AWG device." Ex. 1014 at 4. Patent Owner derides Petitioner's proposed definition in the district court litigation –

requiring that the PLC layers be formed on the substrate – as "attempting to limit substrate to a single disclosed embodiment, which has nothing to do with the prosecution history." Ex. 1019, at 9-10. Consistent with its infringement construction, Patent Owner's infringement contentions identify as the claimed "substrate" various materials that "support" the PLC, but upon which the PLC is ***not*** formed. See Ex. 1016 at 10-15 (identifying the "substrate" at 10 as printed circuit board; at 12 as separate spacer, and at 14 as a glue layer).

Patent Owner's infringement contentions in Ex. 1016 identify as the infringing "substrate" separate structures underlying the PLC, just like silicon photonics chip 301 of Soldano and substrate 100 of Shen. Patent Owner's construction of "substrate" for infringement purposes writes out of the claims 1-11 the limitation that "the output interface region emits the received light from the AWG chip on the same side as the substrate without passing the received light through the substrate." Ex. 1001, claim 1.

As demonstrated above, while Patent Owner in Paper No. 8 embraces the prosecution history of the '116 patent, which requires the substrate to be part of the PLC, Patent Owner argues that for infringement the substrate may be a separate structure from the PLC. *See* Ex. 1002 at 43, 48, and 12; *see also*, Paper No. 2 at 7-10. Under 37 C.F.R. § 42.100(b), this Board is required to use the ***same*** construction as the Court would use in district court litigation. Accordingly, the Board should choose

Patent Owner's construction for "substrate" asserted in the district court litigation. In that case, it is plain that in both Soldano (substrate = silicon photonics chip 301) and Shen (substate = substrate 100), the exposed (not covered by the substrate) output interface region of the AWG chip emits the received light from the AWG chip on "the same side as the substrate without passing the received light through the substrate." As construed by Patent Owner in alleging infringement, the arrangements disclosed in both Soldano and Shen anticipate the claims of the '116 patent.[4]

Patent Owner's argument against Kanazawa, Paper No. 8 at 40-41, fares no better than its arguments against Soldano and Shen. Patent Owner points to the sentence in Ex. 1003 at ¶ 202 that "[a]s construed by Patentee, Kanazawa discloses that the AWG chip (14) is disposed a photodetector array (12) that is disposed on a substrate" as if it somehow favors Patent Owner' position because "the substrate and photodetector array (12) is not an element of the identified AWG chip (14)." It does not. "AWG chip (14)" in Dr. Kirk's declaration simply refers to element 14 of Kanazawa, which is entitled the "Demux integrated SOA Array." Both Patent Owner and Petitioner agree that element 14 accomplishes the purpose of an arrayed

[4] Alternatively, should the Board in its Institution Decision construe the term "substrate" as requiring the PLC layers to be formed thereon, the district court likely will defer to that technical analysis in granting summary judgment of non-infringement of claims 1-11.

waveguide grating ("AWG") by demultiplexing multiple optical signals into optical signals having separate center frequencies. Contrary to Patent Owner's suggestion, however, "AWG chip (14)" of Kanazawa does not mean the AWG chip of the claims of the '116 patent, rendering Patent Owner's assertion a *non sequitur*.

In Kanazawa, the photodetector array (12) is mounted on the surface of the demultiplexer integrated SOA array. *See* Ex., 1011, ¶ [0019]. In the Petition, the entirety of the device described in Kanazawa is what corresponds to "the AWG chip" of the '116 patent, not just the AWG chip (14). As referenced in the Petition and Dr. Kirk's declaration, this understanding of the claimed AWG chip is "as construed by Patent Owner" in its infringement contentions. Those infringement contentions variously identify as the claimed "substrate" as the printed circuit board, a separate spacer, or a glue bump. Ex. 1016 at 10-15. Plainly, none of those components, which are adjacent to the AWG, are "an element" of the AWG chip as Patent Owner construed that term in an effort to stave off invalidity.

2. The Grounds Of Invalidity Were Not Previously Considered

Patent Owner argues at Paper No. 8, at 16-20, that the Petition "is based in part on prior art presented to the Office," and thus the *Advanced Bionics* factors favor discretionary denial. Unlike in *Advanced Bionics*, where the Zimmerling reference was exhaustively considered by the Examiner multiple times, neither Soldano nor Shen

was evaluated during prosecution of the ’116 patent. Instead, the U.S. patent application publications for Soldano and Shen were merely identified in a Disclosure Statement filed in connection with the Amendment dated January 29, 2018. The Shen and Soldano references, together with all of the other references identified in IDSs submitted during pendency of the application, were considered on May 21, 2018, just shortly before the Notice of Allowance was mailed on June 4, 2018. *See* Ex. 1002 at 11, 15, 19 and 23.

As noted in *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper No. 6 (P.T.A.B. Feb. 13, 2020) (precedential) at 10, “if the record of the Office’s previous consideration of the art is not well developed or silent, then a petitioner may show the Office erred by overlooking something persuasive under factors (e) and (f).” In this case, there is no evidence that the Examiner evaluated any of the prior art in the manner in which Patent Owner now construes “substrate” for purposes of infringement. On the contrary, the Notice of Allowability indicates that the Examiner understood the term “substrate” as the base upon which the layers of cladding and optical core are deposited.

Had the Patent Owner informed the Examiner that the Office’s interpretation of “substrate” was incorrect, and that “substrate” means any structure underlying the AWG, the Examiner might never have allowed the claims. The Examiner therefore

erred in relying on Patent Owner's argument and amendments, which Patent Owner promptly jettisoned after obtaining allowance of claims 1-11.

Because the Board must construe the claims of the '116 patent as they would be construed in district court litigation, Patent Owner's construction of "substrate" in the parallel litigation nullifies the limitations on the term "substrate" and having the light exist on the "same side" that it submitted to secure allowance. Accordingly, to prevent Patent Owner's abuse of the patent system, the Board should evaluate the prior art submitted in the Petition in the light of Patent Owner's infringement interpretation of its claims.

Patent Owner's arguments that all of the other prior art relied upon in the Petition is "substantially similar" to Soldano and Shen, which were not themselves applied in any rejection, also fails. Under Patent Owner's "plain and ordinary" infringement meaning of the term "substrate," all the references relied upon by Petitioner disclose an exposed output interface region that emits received light from the AWG chip on the same side of the substrate without passing the received light through the substrate. And as noted above, the challenge to the validity of claims 12-19 presented in the Petition is entirely unrebutted.

C. The Process Set Out In Exhibit 2001 May Violate the APA

Petitioner submits that the Director's Memo dated March 26, 2025, Exhibit 2001, may violate the Administrative Procedures Act ("APA") because it exceeds the Director's authority and may violate the America Invents Act ("AIA").

The AIA does not specifically authorize the Director to deny IPR petitions based on the factors set forth in Ex. 2001. The PTAB's application of the *Fintiv* factors arguably has already led to unpredictable outcomes among similarly situated IPR petitioners. Ex. 2001 appears to exacerbate that problem by introducing several additional, highly malleable factors. For example, with respect to the guidance provided in Ex. 1018 for expert testimony, Petitioners may face discretionary denial for having either ***too much*** or ***too little*** expert testimony – literally, a "Goldilocks' problem." The PTAB guidance on expert testimony leaves too great a hazard for Petitioners to "guess wrong," with dire results.

Further, the procedure set out in Exhibit 2001 may be procedurally invalid because it was issued without complying with the notice-and-comment rulemaking requirements of the APA. *See* 5 U.S.C. § 553(b), (c); 35 U.S.C. §§ 2(b)(2), 316(a).

And finally, discretionary denial is not specifically authorized for any basis other than set forth in 35 U.S.C. § 314(a). The Director lacks absolute discretion regarding whether to institute an IPR; instead that discretion is limited to the bases

authorized in 35 U.S.C. § 314; 35 U.S.C. § 316(a)(2). *Cf., SAS Inst., Inc. v. Iancu*, 584 U.S. 357, 363-364 (2018). For these additional reasons Petitioner requests that the Director deny Patent Owner's request for discretionary denial.

III. CONCLUSION

Petitioner respectfully requests that the Director deny Patent Owner's request for discretionary denial.

Date: May 27, 2025 By: */Nicola A. Pisano/*

Nicola A. Pisano
Reg. No. 34,408
EVERSHEDS SUTHERLAND (US) LLP
12255 Camino Real, Suite 100
San Diego, California 92130-2071
Phone: (858) 252-2952
Fax: (858) 252-6503

CERTIFICATION UNDER 37 C.F.R. § 42.24

Petitioner certifies that the word count in this Petition is 4,326 words, as counted by the word-processing program (Microsoft Word for Office 365) used to generate this paper, where such word count excludes the table of contents, table of authorities, mandatory notices, certificate of service, appendix of exhibits, and this certificate of word count. This paper is in compliance with the 14,000-word limit set in 37 C.F.R. § 42.24(a)(1)(i).

Date: May 27, 2025 By: */Nicola A. Pisano/*

Nicola A. Pisano
Reg. No. 34,408
EVERSHEDS SUTHERLAND (US) LLP
12255 Camino Real, Suite 100
San Diego, California 92130-2071
Phone: (858) 252-2952
Fax: (858) 252-6503

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e), 42.105, the undersigned hereby certifies that true and correct copies of the above-captioned PETITIONER'S OPPOSITION TO PATENT OWNER'S REQUEST FOR DISCRETIONARY DENIAL OF INSTITUTION and all associated exhibits were served in their entireties on May 27, 2025, upon the Patent Owner at the correspondence address of record for the subject patent as listed on the USPTO's Patent Center via Priority Mail Express®:

APPLIED OPTOELECTRONICS, INC.
13115 Jess Pirtle Blvd.
Sugar Land, TX 77478

Date: May 27, 2025 By: */Nicola A. Pisano/*

Nicola A. Pisano
Reg. No. 34,408
EVERSHEDS SUTHERLAND (US) LLP
12255 Camino Real, Suite 100
San Diego, California 92130-2071
Phone: (858) 252-2952
Fax: (858) 252-6503