

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LUXOTTICA OF AMERICA INC.,

Petitioner

v.

E-VISION OPTICS, LLC

Patent Owner

Case No. IPR2024-01071

Patent No. 8,905,541

PATENT OWNER'S SUR-REPLY TO PETITIONER'S REPLY

Mail Stop PATENT BOARD
Patent Trial and Appeal Board
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

	Page(s)
EXHIBIT LIST	v
I. INTRODUCTION	1
II. GROUND 1: THERE WAS NO MOTIVATION TO COMBINE HOWELL-596 WITH HOWELL-158.....	2
A. Claim 1	2
B. Claim 12: Petitioner’s Identification Of Prior Art Elements Is Inconsistent and in Direct Conflict with the Teachings Of The Cited References.....	12
C. Claim 18: Petitioner’s Reliance On Non-Electronic Eyeglasses Illustrates Petitioner’s Failure To Identify A Motivation To Combine	16
D. Claims 2-11 and 13-17	18
III. GROUND 2: CLAIMS 16-17 ARE NOT OBVIOUS	18
IV. GROUND 3: HOWELL-596 DOES NOT TEACH AN INSULATING LAYER.....	18
A. Claim 1	18
B. Claims 2-18	20
V. GROUND 4: CLAIMS 16-17 ARE NOT OBVIOUS	21
VI. GROUND 5: KOKONASKI-166 DOES NOT DISCLOSE AN INSULATING LAYER, AND THERE WAS NO MOTIVATION TO COMBINE WITH HOWELL-158	21
A. Claim 1	21
B. Claims 2-9, 11, and 13-18	25

VII. GROUND 6: THERE WAS NO MOTIVATION TO COMBINE KOKONASKI-999 WITH HOWELL-158	26
A. Claim 1	26
B. Claims 2-9, 11, and 13-18	28
VIII. CONCLUSION.....	28
CERTIFICATION OF WORD COUNT	29
CERTIFICATE OF SERVICE	30

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.</i> , 694 F.3d 1312 (Fed. Cir. 2012)	<i>passim</i>
<i>In re Application of Aller</i> , 220 F.2 454 (C.C.P.A. Mar. 22, 1955)	17
<i>Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC</i> , 825 F.3d 1373 (Fed. Cir. 2016)	8
<i>Arctic Cat Inc. v. Polaris Indus., Inc.</i> , 795 F. App'x 827 (Fed. Cir. 2019).....	8, 9, 11
<i>In re Fulton</i> , 391 F.3d 1195 (Fed. Cir. 2004)	8
<i>KSR Int'l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	6, 24
<i>In re Magnum Oil Tools Int'l, Ltd.</i> , 829 F.3d 1364 (Fed. Cir. 2016)	4, 11, 26
<i>Smithkline Beecham Corp. v. Apotex Corp.</i> , 439 F.3d 1312 (Fed. Cir. 2006)	26
<i>TQ Delta, LLC v. CISCO Sys., Inc.</i> , 942 F.3d 1352 (Fed. Cir. 2019)	3, 4, 6, 17
<i>Twitter, Inc. v. VidStream LLC</i> , 825 F. App'x 844 (Fed. Cir. 2020).....	3
<i>Univ. of Strathclyde v. Clear-Vu Lighting LLC</i> , 17 F.4th 155 (Fed. Cir. 2021)	9
<i>Wasica Finance GMBH v. Continental Automotive Sys., Inc.</i> , 853 F.3d 1272 (Fed. Cir. 2017)	26

Statutes

35 U.S.C. § 312(a)(4).....	21
35 U.S.C. § 316(e)	3
37 C.F.R. § 42.104(B)(4)	21

EXHIBIT LIST

Exhibit	Description
2001	<i>eVision Optics, LLC and Vision Smart Optics, Inc. v. Luxottica Group S.P.A. and Luxottica of America Inc.</i> , Case No. 8:23-cv-02013 AB (SHK) Order Denying Defendants’ Motion to Stay, Dkt. 75 (Aug. 21, 2024 C.D. Cal.)
2002	<i>eVision Optics, LLC and Vision Smart Optics, Inc. v. Luxottica Group S.P.A. and Luxottica of America Inc.</i> , Case No. 8:23-cv-02013 AB (SHK) Order Re Civil Jury/Court Trial, Dkt. 54 (April 4, 2024 C.D. Cal.)
2003	<i>eVision Optics, LLC and Vision Smart Optics, Inc. v. Luxottica Group S.P.A. and Luxottica of America Inc.</i> , Case No. 8:23-cv-02013 AB (SHK) Order Scheduling Additional Dates and Correcting Scheduling Order, Dkt. 58 (April 18, 2024 C.D. Cal.)
2004	<i>eVision Optics, LLC and Vision Smart Optics, Inc. v. Lenovo Group, Ltd., et al.</i> , Case No. 8:23-cv-01860 AB (SHK) Defendants’ Preliminary Invalidity Contentions (July 19, 2024 C.D. Cal.)
2005	<i>eVision Optics, LLC and Vision Smart Optics, Inc. v. Luxottica Group S.P.A. and Luxottica of America Inc.</i> , Case No. 8:23-cv-02013 AB (SHK) Defendants’ Invalidity Contentions (July 12, 2024 C.D. Cal.)
2006	<i>eVision Optics, LLC and e-Vision Smart Optics, Inc. v. Lenovo Group, Ltd. et al.</i> , Case No. 8:23-cv-01860-AB-SHK, Order re Civil Jury/Court Trial, Dkt. 54 (April 3, 2024 C.D. Cal.)
2007	Lex Machina – Federal Court – Federal District Court Cases in C.D. Cal, Pending Between 2019-09-01 and 2024-09-19
2008	Vacancies in the Federal Judiciary 118th Congress, last updated on 9/23/2024, https://www.uscourts.gov/judges-judgeships/judicial-vacancies/current-judicial-vacancies
2009	<i>eVision Optics, LLC and Vision Smart Optics, Inc. v. Luxottica Group S.P.A. and Luxottica of America Inc.</i> , Case No. 8:23-cv-02013 AB (SHK) Order Scheduling Additional Dates and Correcting Scheduling Order, Dkt. 58 (April 18, 2024 C.D. Cal.)
2010	<i>eVision Optics, LLC and e-Vision Smart Optics, Inc. v. Lenovo Group, Ltd. et al.</i> , Case No. 8:23-cv-01860-AB-SHK, Order

Patent Owner's Sur-Reply to
Petitioner's Reply for *Inter Partes* Review
Patent No. 8,905,541

Exhibit	Description
	Granting Joint Stipulation to Schedule Additional Dates, Dkt. 56 (April 18, 2024 C.D. Cal.)
2011	<i>eVision Optics, LLC and Vision Smart Optics, Inc. v. Luxottica Group S.P.A. and Luxottica of America Inc.</i> , Case No. 8:23-cv-02013 AB (SHK) (IN CHAMBERS) Order Continuing Claim Construction Hearing, Dkt. 97 (Oct. 7, 2024 C.D. Cal.)
2012	<i>eVision Optics, LLC and e-Vision Smart Optics, Inc. v. Lenovo Group, Ltd. et al.</i> , Case No. 8:23-cv-01860-AB-SHK, (IN CHAMBERS) Order Continuing Claim Construction Hearing, Dkt. 74 (Oct. 7, 2024 C.D. Cal.)
2013	<i>eVision Optics, LLC and e-Vision Smart Optics, Inc. v. Lenovo Group, Ltd. et al.</i> , Case No. 8:23-cv-01860-AB-SHK, Order Granting Joint Stipulation to Modify Order, Dkt. 78 (Dec. 4, 2024 C.D. Cal.)
2014	Declaration of James D. Oliver, PhD in Support of Patent Owner's Response
2015	James D. Oliver Curriculum Vitae
2016	https://museumoffailure.com/exhibition/oakley-thump
2017	https://www.cnet.com/reviews/oakley-thump-review/
2018	https://www.globenewswire.com/news-release/2004/11/15/318738/2175/en/Exclusive-Media-Event-Marks-Debut-of-OAKLEY-THUMP.html
2019	Nugroho, et al. "Understanding and Evaluating User Centered Design in Wearable Expressions"
2020	Wearable Computing – a new approach in Concurrent Enterprising, Conference Paper, June 2006

I. INTRODUCTION

Petitioner has not met its burden to prove, by a preponderance of the evidence, that claims 1-18 of the '541 patent are unpatentable.

In its reply, Petitioner repeatedly posits that a POSITA is “not an automaton.” (Reply, 4, 8.) While relying so heavily on that language, Petitioner reduces the POSITA into an automaton possessed by the retrospective and biased desires of a Petitioner seeking to challenge a patent, ignoring what was known in the art to apply a convoluted, self-defeating combination of prior art teachings that would have created more problems than it might have solved.

Petitioner's combinations all depend on a POSITA's using metal eyeglass frames in a way that would have been detrimental, both aesthetically and functionally. Petitioner then argues that it would have been obvious to a POSITA to resolve these problems--which Petitioner has created--by inserting an insulating layer, further impeding aesthetics and functionality. Petitioner purports to rely on a POSITA's ordinary creativity to overcome problems that would not have existed but for Petitioner's proposed combinations. The opposite is true: a POSITA would exercise common sense, logic, and creativity to avoid those problems in the first place.

A common theme in Petitioner's Grounds 1-6 is that Petitioner engages in hindsight to handwave these deficiencies away and circumvent its burden of proof. Rather than properly assessing whether a POSITA would have had any reason to make the proposed combinations, Petitioner works backwards, stitching together disparate features from the prior art and ignoring multiple ways those features conflict with one another.

Accordingly, the Board should find the challenged claims patentable.

II. GROUND 1: THERE WAS NO MOTIVATION TO COMBINE HOWELL-596 WITH HOWELL-158

A. Claim 1

As Patent Owner noted previously, Petitioner offers two main arguments to support its assertion that a POSITA would have combined the teachings of Howell-158 and Howell-596: (1) that Howell 158 allegedly suggests Petitioner's combination (Petition, 22); and (2) that it would have been obvious to construct Howell-596's eyeglass frames from metal, only after which would it have been obvious to insulate Howell-596's electrical components (Petition, 22-24). (POR, 17). Patent Owner explained in its response why neither argument is persuasive. (*Id.*, 17-23). As explained below, Petitioner's reply arguments fare no better.

First, Petitioner fails to meaningfully respond to Patent Owner's argument that Petitioner failed to specify where in Howell-596's glasses a POSITA would

have inserted an insulating layer. In particular, Patent Owner noted that the petition does not specify whether, in Petitioner's proposed combination, Howell-158's double-sided electrical tape would be inserted between Howell-596's circuit board and module, between the module and the housing, or between the housing and the frames. (POR, 16.) Petitioner dodged that question in its reply, merely (1) repeating its assertion that a POSITA would have applied an insulating layer between Howell-596's electrical components and its frame; and (2) arguing, in effect, that a POSITA would have figured it out. (Reply, 2-3 ("A POSITA is not an automaton and would have known how to apply an insulating layer.").)

It was Petitioner's burden to fully articulate its obviousness combinations in the petition. *Twitter, Inc. v. VidStream LLC*, 825 F. App'x 844, 851 (Fed. Cir. 2020) (citing 35 U.S.C. § 316(e)). While the obviousness analysis does not assume that a POSITA is an automaton, Petitioner did have to explain *why* and *how* a POSITA would have been motivated to create a *specific combination* identified in the petition. *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012) (affirming a finding of nonobviousness where the challenger "fail[ed] to explain why a person of ordinary skill in the art would have combined elements from specific references *in the way the claimed invention does.*") (emphasis in original)); *see also TQ Delta, LLC v. CISCO Sys., Inc.*, 942 F.3d 1352, 1359 (Fed. Cir. 2019)

(noting that the Federal Circuit rejects “obviousness determinations based on conclusory and unsupported expert testimony” and has “repeatedly expressed concerns that crediting such testimony risks allowing the challenger to use the challenged patent as a roadmap to reconstruct the claimed invention using disparate elements from the prior art—i.e., the impermissible ex post reasoning and hindsight bias that KSR warned against”); *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1381 (Fed. Cir. 2016) (noting that the Board does not have the authority to “raise, address, and decide unpatentability theories never presented by the petitioner and not supported by record evidence”).

Simply asserting that Howell-158 discloses what the claim language requires—as Petitioner does here—is insufficient to show how a POSITA would have incorporated Howell-158's insulating layer into Howell-596's more complex eyeglass structure, which includes both a module and a housing in addition to electrical components and frames. *See TQ Delta*, 942 F.3d at 1359. Petitioner's lack of specificity is especially important here, where different possible locations for Howell-158's tape create different problems in Petitioner's combination. {*See* POR, 16-17, 22.)

Second, Petitioner incorrectly alleges that Patent Owner “misunderstand[s] the law” by attaching probative weight to the fact that, despite Howell-158's

incorporating Howell-596 by reference, neither reference discloses (or even suggests) Petitioner's proposed combination. (Reply, 4-5.) But it is Petitioner who misunderstands Patent Owner's argument. (See Reply, 4-5.) Contrary to Petitioner's suggestion, Patent Owner does not argue that one or both of the Howell references must have disclosed Petitioner's combination. Rather, Howell-158's incorporation by reference of Howell-596 is significant because their inventors themselves considered the two references to be related but did not disclose Petitioner's proposed combination.

Third, Petitioner repeats its argument that a POSITA would have been motivated to combine the references because Howell-158 purports to incorporate Howell-596 by reference—and that “the combined references therefore disclose metal frames in a single source—namely, Howell-158.” (Reply, 5.) But this fact is irrelevant. Petitioner itself notes—in the preceding paragraph of its reply—that it has not asserted anticipation based on Howell-158 or any other “single source.” (*Id.*) And as Patent Owner explained in its response, Howell-158's metal-frame embodiment is one of an unusually large number of disclosed embodiments, and Howell-596 is one of *two dozen* related applications Howell-158 purports to incorporate by reference. (POR, 17-18.) Petitioner's implicit suggestion that mere awareness of the reference(s) would have motivated a POSITA to incorporate metal

frames into Howell-596's radiation monitoring glasses defies common sense. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. at 401 (2007) (noting that "it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does" given that "[i]nventions usually rely upon building blocks long since uncovered, and claimed discoveries almost necessarily will be combinations of what, in some sense, is already known.").

Fourth, Petitioner notes that (1) claim 1 of the '541 patent is not limited to metal frames; and (2) "Howell-158 identifies metal frames as a known option for implementing eyewear containing electronics." (Reply, 5.) Neither fact is relevant to the obviousness analysis here. That a POSITA was aware of metal frames in general—or that claim 1 does not require them—has no bearing on whether a POSITA would have incorporated metal frames into eyeglasses with Howell-596's UV detection system. *See ActiveVideo*, 694 F.3d at 1328; *TQ Delta* 942 F.3d at 1359. Relatedly, that metal frames might have certain advantages in certain contexts, as Petitioner alleges, does not establish motivation to use them in the specific combination Petitioner proposes. *ActiveVideo*, 694 F.3d at 1328. The obviousness analysis requires consideration of both advantages and disadvantages associated with each combination. *Id.*

In both its petition and reply, Petitioner ignores disadvantages of incorporating metal frames into Howell-596's eyeglasses. For example, as Dr. Oliver explained, metal frames in Petitioner's combination would have increased the risk of short circuits and reduced aesthetics and comfort. (*See* EX-2014, ¶¶52-55; EX-1018, 18:4-14.) Moreover, Howell-596 is intended to measure UV radiation, including in environments exposed to heavy sunlight. (*See* EX-1004, Abstract, ¶¶[0004], [0224]; EX-1018, 18:4-14.) While Petitioner notes that metal frames conduct electricity,, Petitioner overlooks the fact that metal frames conduct significant heat as well. (EX-1018, 18:4-14.) Thus, a POSITA would not have built electronic eyeglasses to detect high UV radiation from sunlight, encased the electronics in metal frames that would conduct both electricity and heat, and then add insulation to solve avoidable problems Petitioner's combination created. (*See id.*)

Fifth, after failing to weigh the disadvantages of metal frames alongside their alleged benefits, Petitioner criticizes Patent Owner for doing exactly that in its response. (Reply, 6.) Here again, rather than addressing the holes in its own arguments, Petitioner mischaracterizes Patent Owner's argument. But contrary to Petitioner's assertion, Patent Owner does not argue that the various problems that would have been created by using metal frames with Howell-596's UV detection

glasses “teach away” from the claimed invention. Patent Owner does, however, explain why Petitioner’s proposed combination introduces problems that would have dissuaded a POSITA from attempting it. (POR, 20-21.) Considering such problems is not only appropriate, but also necessary. *See Arctic Cat Inc. v. Polaris Indus., Inc.*, 795 F. App'x 827, 833 (Fed. Cir. 2019) (affirming decision finding challenged claims patentable because the petitioner “tried to create a problem with the prior art in hopes of creating a motivation to combine” and noting that “[t]he relevant inquiry is whether or not a person having ordinary skill in the art would be motivated to combine references despite drawbacks that the combination might present.”).

Petitioner’s remaining arguments on this issue are not persuasive. In *Allied*, the alleged disadvantages of the petitioner’s combination were merely speculative, and did not rise to the level of “teaching away” from the claimed invention. *Allied Erecting & Dismantling Co. v. Genesis Attachments, LLC*, 825 F.3d 1373, 1381 (Fed. Cir. 2016). Unlike in *Allied*, Patent Owner here does not rely on a “teaching away” argument, and Petitioner does not dispute that metal frames have significant disadvantages—including electric and thermal conductivity. (See POR, 20-21; Reply, 6-7.) Similarly, unlike in *Fulton*, Petitioner’s combination here is not only undesirable, but also counterproductive. *See In re Fulton*, 391 F.3d 1195, 1200 (Fed. Cir. 2004). And although Petitioner contends its combination would have yielded

“predictable results,” Petitioner does not identify what those “predictable results” would have been. (Reply, 7.) In fact, the most predictable results of Petitioner’s combination would have been the problems identified by Patent Owner (POR, 19-21), which would have dissuaded a POSITA from attempting Petitioner’s combination. *Arctic Cat Inc.*, 795 F. App'x at 833.

Sixth, Petitioner disputes Patent Owner’s contention that Howell-158’s insulating layer would have significantly limited the sunlight exposure of Howell-596’s UV detection sensor, for three reasons. (Reply, 7-9.) None is persuasive.

Petitioner’s first argument on this point merely recites the claim language, applying impermissible hindsight and failing to address the detrimental impact of Howell-158’s insulation in Petitioner’s combination. *See Univ. of Strathclyde v. Clear-Vu Lighting LLC*, 17 F.4th 155, 165 (Fed. Cir. 2021) (“The inventor's own path itself never leads to a conclusion of obviousness; that is hindsight. What matters is the path that the person of ordinary skill in the art would have followed, as evidenced by the pertinent prior art.”) (citation omitted). Moreover, while Petitioner argues that “[t]here is no requirement that an insulating layer must be applied to and cover *all* electronic components” (Reply, 7), Petitioner proposes applying Howell-

158's insulating layer to Howell-596's circuit board (Petition, 27), which, according to Howell-596 itself, must be exposed to sunlight (EX-1006, ¶[0075]).

Petitioner's second argument also fails. Although Petitioner argues that Howell-158's dielectric tape need not be "bodily incorporated" into Howell-596 (Reply, 8)—, Petitioner was still required to articulate how a POSITA allegedly would have been incorporated Howell-158's insulating layer into Howell-596's UV detection system, or otherwise combined their teachings to construct an operable device. *See ActiveVideo Networks, Inc.*, 694 F.3d at 1328. And while the Board correctly noted in its institution decision that Petitioner was not required to limit its proposed combination to dielectric tape—the only insulating layer Howell-158 discloses (*see* EX-1004, ¶[0053])—Petitioner *was* required to explain how a POSITA would have modified Howell-158's teachings (if at all) and apply them to Howell-596's UV detection system. *See ActiveVideo Networks, Inc.*, 694 F.3d at 1328.

Petitioner's final incompatibility-rebuttal argument dismisses Patent Owner's evidence of negative weight, design, and aesthetics impacts as "merely unsupported conjecture." (Reply, 8-9.) To the contrary, Patent Owner's argument is amply supported by evidence, including Howell-596 and more than three pages of expert testimony—which in turn relies on both ground 1 references and five additional

exhibits. (POR, 21; EX-2014, ¶¶53-55.) As just one example, Howell-158 references titanium as lightweight *relative to other metals*, a concern would have dissuaded a POSITA from incorporating metal frames into Howell-596. (See EX-1006, ¶[0052]; EX-2014, ¶¶54-55.) Petitioner's reliance on *Ericsson* is therefore misplaced.

Seventh (and lastly), Petitioner disputes Patent Owner's contention that Howell-596 has no need for an insulating layer because it discloses multiple other ways to prevent contact between conductive portions of its UV detection system. (Reply, 9-10.) Contrary to Petitioner's suggestion, these features of Howell-596 are not merely more preferred or more desirable than Petitioner's proposed solution of metal frames and insulation, as was the case in *Fulton*. Rather, Howell-596's fixed positions and air gaps eliminate the problem underlying Petitioner's proposed solution (see POR, 21-23), significantly undercutting—if not disproving—Petitioner's alleged motivation to combine. See *Arctic Cat Inc.*, 694 F.3d at 1328.

Finally, Petitioner asserts for the first time in its reply that Howell-596 itself discloses an insulating layer. (Reply, 9 (“In any case, Howell-596 discloses an insulating layer.”)) The Board should reject this argument as waived. See *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d at 1381. But even if the Board elects to consider it, Petitioner's characterization of adhesives disclosed by Howell-596 as

“an insulating layer” is, at best, misleading. At most, the disclosures Petitioner relies on (and the figures they reference) describe use of an adhesive—applied, for example, between the *ends* of a circuit board and an eyewear housing—to hold Howell-596's UV detection system in place, *without covering or otherwise interfering with its electrical components*. (See EX-1004, ¶¶[190], [196], FIGS. 16C, 17B.) Thus, consistent with Patent Owner's position, Petitioner's belated reply argument confirms that, even if a POSITA were motivated to use metal frames with Howell-596's UV detection system, there still would have been no need for an insulating layer.

B. Claim 12: Petitioner's Identification Of Prior Art Elements Is Inconsistent and in Direct Conflict with the Teachings Of The Cited References

For claim 12—unlike claim 1, from which claim 12 depends—Petitioner asserts that Howell-158's insulating layer satisfies not only the “insulating layer” limitation, but also the “electronics module” limitation common to both claims. (Reply, 10.) With respect to this additional limitation, Petitioner argues that Howell-158's insulating layer “meets the ‘electronics module’ limitation because it ‘encapsulate[s] the electrical components’ and provides ‘mechanical stiffness.’” (See *id.*) But even assuming Petitioner adequately disclosed this theory in its petition,

and even ignoring Petitioner's inconsistent mappings to the same claim limitations, Petitioner's argument fails for multiple reasons.

As an initial matter, Petitioner mischaracterizes Howell-158 in its reply, arguing that the reference “**confirms** that its insulating layer can function as a **housing** or **container** by providing encapsulation, insulation, and mechanical stiffness.” (Reply, 13 (emphases added).) But Howell-158 mentions an insulating layer in only a single paragraph, which neither discloses nor suggests that an insulating layer can “function as a housing or container.” (EX-1004, ¶53.) In fact, contrary to Petitioner's assertion, a POSITA would have understood that Howell-158's insulating layer **cannot** function as a housing or container.

Howell-158 discloses only one example of an insulating layer: “a tape to encapsulate the electrical components,” which, “to a certain degree, can . . . provide mechanical stiffness.” (EX-1004, ¶53.) Petitioner argues that, merely because Howell-158 discloses that its tape embodiment has those two properties—(1) encapsulation of electronics and (2) a certain degree of mechanical stiffness—Howell-158's tape satisfies the “electronics module” limitation of claim 12 of the '541 patent. But neither Howell-158 nor Petitioner addresses what degree of mechanical stiffness might be necessary for an electronics module. And Petitioner does not assert—much less prove—that a POSITA would have understood tape—

whether double-sided or otherwise—to provide sufficient stiffness to house an electronics module.

Petitioner also cites various '541 patent disclosures for the proposition that, in certain circumstances, the exterior wall of an electronics module can function as the claimed insulating layer. (Reply, 11 (citing EX-1001, 59:18-9, 58:50-55, 2:20-21, 7:45-51.) But those disclosures indicate only that the wall of an electronics module—if made from an insulating material—can also function as an insulating layer. At most, that would not mean that an insulating layer—regardless of its structure, material, and other properties—is necessarily an electronics module within the meaning of the challenged claims.

Relatedly, Petitioner's disclaimer-related arguments (Reply, 12-13) are irrelevant in the context of claim 12. In response to Petitioner's ground 3 argument—that Howell-596 alone renders certain '541 patent claims obvious—Patent Owner argued that, during prosecution, Patent Owner disclaimed an embodiment where the claimed electronics module also satisfies the insulating layer limitation. (POR, 35-36.) But Patent Owner does not rely on its disclaimer argument in responding to ground 1, and, in any event, Petitioner does not challenge claim 12 under ground 3.

Petitioner next criticizes Patent Owner for a supposedly “overly narrow interpretation of Howell-158,” which, according to Petitioner, “is not limited to using double-sided electrical tape and allows for other types of insulating layers.” (Reply, 14.) But Howell-158’s single-paragraph disclosure concerning an insulating layer does not disclose or suggest any exemplary embodiments other than tape. Even if it did, Howell-158 describes only that exemplary tape embodiment—and not insulating layers generally—as having the “certain degree” of “mechanical stiffness” Petitioner suggests is necessary for an insulating layer to constitute the claimed electronics module. (*See* Reply 10; EX-1004, ¶53.) And in any event, Petitioner cites no evidence, in Howell-158 or elsewhere, indicating that some other undisclosed insulating layer could have been used to construct an electronics module.

Finally, Petitioner largely ignores Patent Owner’s argument that Petitioner failed to establish any motivation to incorporate Howell-158’s insulating layer into Howell-596 *as an electronics module*, particularly given that Howell-158’s tape would not only impair the functionality of Howell-596’s UV sensor, but also provide less mechanical stiffness than Howell-596’s own module. (*See* POR, 28-30; Reply, 14.) And confusingly, while Petitioner asserts that “the Petition’s rationale for combining the references does not depend on Howell-158’s insulating layer encapsulating the sensor” (Reply, 14), that is exactly the rationale set forth in the

petition: “The insulating layer qualifies as the claimed electronics module including because it ‘encapsulate[s] the electrical components’ to provide both insulation and ‘mechanical stiffness.’” (Petition, 34.)

Petitioner's inconsistent and shifting positions underscore Petitioner's failure to carry its burden of proof. The Board should find claim 12 patentable.

C. Claim 18: Petitioner's Reliance On Non-Electronic Eyeglasses Illustrates Petitioner's Failure To Identify A Motivation To Combine

Petitioner asserts that a POSITA would have arrived at the thickness requirement of claim 18 through routine optimization (Reply, 14), again circumventing its burden rather than articulating how a POSITA would have combined prior art teachings to arrive at the claimed invention. *See ActiveVideo*, 694 F.3d at 1328. The non-electronic eyeglass frames of Dudli and Della, which have no internal electronic components, do not address how to incorporate internal electronic components, do not address how to incorporate electronics into eyeglasses at all, and would not have motivated a POSITA to implement the dimensions recited in claim 18. Petitioner does not dispute this (Reply, 15-16). Instead, Petitioner argues that its expert relied on Dudli and Della merely to explain that a POSITA would have been motivated to maintain the proportions of electronic eyewear similar to traditional eyewear. (*Id.*) Petitioner's expert does not explain how a POSITA

would have managed to accomplish this. (*Id.*) Dr. Feland's oversimplification that the claimed thickness is merely a "result-effective variable" is also not supported by the evidence. (*Id.*) In fact, Petitioner and Dr. Feland overlook the fact that the thickness limitations recited in the '541 Patent strike a delicate balance between providing structural support while not impeding the highly sensitive sensing mechanism and insulating layer as claimed. (EX-1001, 66:15-34.) These considerations were far from the "general conditions" upon which the Court of Customs and Patent Appeals predicated its finding of routine experimentation in *Aller*. *In re Application of Aller*, 220 F.2 454, 456 (C.C.P.A. Mar. 22, 1955).

Petitioner also asserts that "[t]he Petition identifies prior art describing spectacles with temples having 'a thickness of 0.2 to 0.5 mm' or 'around 0.7 mm.'" (Reply, 15.) But Petitioner's generalized statements of vague potential benefits do not sufficiently articulate motivation to combine. *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d at 1328; *TQ Delta, LLC*, 942 F.3d at 1359. The absence of any teaching or explanation for how a POSITA would have been motivated by non-electronic eyeglasses to come to the dimensions recited in claim 18 are fatal to the Petition.

D. Claims 2-11 and 13-17

Claims 2-11 and 13-17 all depend from claim 1, and, accordingly, are patentable over Petitioner's Ground 1 combination for the same reasons claim 1 is patentable. *See* § II.D., *supra*.

III. GROUND 2: CLAIMS 16-17 ARE NOT OBVIOUS

Claims 16 and 17 depend from claim 1. Petitioner does not address the deficiencies in the petition except to incorporate by reference its prior arguments pertaining to Ground 1. Accordingly, for the reasons set forth above and in Patent Owner's Response, claims 16-17 are patentable.

IV. GROUND 3: HOWELL-596 DOES NOT TEACH AN INSULATING LAYER

A. Claim 1

In its reply, Petitioner continues to improperly rely on the '541 patent's specification as a roadmap for interpreting and modifying Howell-596 teachings. (*See* Reply, 17.) Petitioner also reiterates its position that Howell-596 discloses an insulating layer based on the flawed premise that a POSITA would have formed the exterior wall for Howell-596's UV detection system with an insulating material. *Id.*

Petitioner fails to acknowledge the distinction between eyeglasses formed from non-conductive materials and eyeglasses that include insulating layers between conductive materials and electrical components. *Id.* In doing so, Petitioner also

disregards the fact that this very distinction was made during prosecution of the '541 Patent, and was a reason for why the application was allowed over the prior art. (EX-1003, 37, 60-68.). Additionally, Petitioner misunderstands Patent Owner's argument, which noted the petition's failure to explain why a POSITA would have been motivated to incorporate an insulating layer into the eyewear of Howell-596. (Reply, 19.)

Petitioner's assertion that a POSITA would have selected an insulating material for the exterior wall of Howell-596's electronics module misses the point. (Reply, 18.) Petitioner merely argues that Howell-596 teaches that a housing of an electronics module may be formed of a material that is not electrically conductive. (*Id.*) Howell-596's exterior wall does not insulate anything because there is no electrically conductive material in the eyewear housing to insulate the UV detection system from. (EX-2014, ¶74.) And as Patent Owner explained, a non-conductive material is not an "insulating layer" if there is no conductive material to insulate the electrical components from. (POR, 36.)

Petitioner's argument assumes the use of metal frames in Howell-596's eyeglasses (Reply, 18-19)—contrary to Patent Owner's arguments and expert testimony. (*See, e.g.*, POR 34-35; EX-2014 ¶74.) Petitioner does not dispute that ground 3 is predicated on Howell-596's incorporating metal frames, nor does

Petitioner address the problems that would have resulted from metal frames. (Reply, 18-19). In fact, despite arguing that its motivation to modify Howell-596 is predicated on the UV detection system being “metal-cased” (Petition, 48), Petitioner avoids this argument in its reply. (*See* Reply, 17-19.)

Petitioner also fails to address Patent Owner's argument that Howell-596 teaches alternatives to insulating layers (such as air gaps) that obviate the need for insulation even if Howell-596's UV detection module were metal-cased. (*See id.*; *see also* POR, 37; EX-1004 ¶[0194]; EX-2014 ¶¶74-75.) In fact, the knowledge of a POSITA indicates that using metal frames or otherwise forcing insulating layers into Howell-596's UV detection system, which focuses on minimizing components in an already complicated system, would be counterproductive to Howell-596's system.

Accordingly, claim of the '541 patent is patentable over Howell-596.

B. Claims 2-18

Claims 2-18 all depend from claim 1. Petitioner provides no arguments or explanations that overcome the deficiencies laid out in Patent Owner's Response. Accordingly, for the same reasons set forth above and in Patent Owner's Response, claims 2-11 and 13-17 are patentable.

V. GROUND 4: CLAIMS 16-17 ARE NOT OBVIOUS

Claims 16 and 17 depend from claim 1. Like Ground 2, Petitioner does not address the deficiencies in the Petition except to incorporate by reference its prior arguments pertaining to Ground 3. Accordingly, for the reasons set forth above and in Patent Owner's Response, claims 16-17 are patentable.

VI. GROUND 5: KOKONASKI-166 DOES NOT DISCLOSE AN INSULATING LAYER, AND THERE WAS NO MOTIVATION TO COMBINE WITH HOWELL-158

A. Claim 1

Petitioner's reply arguments either repeat the same mistakes made in the petition or attempt to sidestep Patent Owner's critical points.

First, Petitioner merely doubles down on its insufficient showing in the petition that Kokonaski-166 discloses an insulative layer. (Reply, 20.) Petitioner again relies on nothing more than its expert's unsupported opinion, which cannot form the basis for a missing limitation. 37 C.F.R. § 42.104(b)(4); 35 U.S.C. § 312(a)(4). Petitioner passively seeks to shift the burden of proof regarding whether silicone is insulative. But it is Petitioner who must prove, by a preponderance of the evidence, that each and every element of the challenged claims is present in the prior art. *ActiveVideo Networks, Inc.*, 694 F.3d at 1328 (citation omitted). Aside from unsupported statements from Petitioner and its expert's speculation, Petitioner

provides no evidence that silicone is insulative, especially in eyeglasses lacking metal frames. And while Petitioner describes its expert's testimony as undisputed, Patent Owner's expert explained that Kokonaski-166's silicone seal is not an insulating layer. (EX-2014, ¶¶ 78-79.) Thus, Petitioner fails to meet its burden.

Second, Petitioner distracts from the main issue by characterizing an inherency analysis in the prosecution history as “inherent anticipation.” (Reply, 21.) But analysis of whether a reference inherently discloses a limitation is the same—whether that reference stands alone or is part of an obviousness combination. Petitioner asserts that whether an insulating layer is “necessarily present” in Kokonaski-166 “is irrelevant to the petition's obviousness analysis.” (Reply, 21.) But Petitioner *does not argue that an insulative layer would have been obvious*. (Petition, 56-57.) Rather, Petitioner relies on Kokonaski-166's purportedly express disclosure. (*Id.*) Accordingly, whether or not Kokonaski-166 discloses an insulative layer—inherently or expressly—is highly relevant to whether the petitioned grounds succeed. They do not.

The statements made during prosecution of the '541 patent make clear that Kokonaski-166 does not disclose an insulating layer. (POR, 38-39.) Moreover, the Examiner further found that an insulating layer would not have been obvious to a POSITA given that, absent metal frames or housings, there is no insulation being

provided by any non-conductive material within Kokonaski-166. (*See id.*, 37, 65-67.)

Third, Petitioner again merely repeats the conclusory argument made in its petition that a POSITA would have been motivated to apply insulation to the alleged electronics module without actually showing *why* a POSITA would have been so motivated. (Reply, 21.) Kokonaski-166's silicone seal is not a layer, nor is it a layer disposed between an electronic component within an electronics module and the eyeglass frame. (POR, 40.) Instead, it is a water-resistant seal placed within the frame. (*Id.*) In fact, the seal is used as a part of the frame – not between electrical components – so that the frame itself is watertight. (EX-1008, ¶[0087].) Thus, fatal to Petitioner's argument is the fact that nowhere does Kokonaski-166 teach an insulating layer between an electrical component within the electronics module and the frame of Kokonaski-166's eyeglasses.

Despite these facts, Petitioner merely concludes that a POSITA would have applied the Kokonaski-166's seal in a different manner and within a different context. (Petition, 57.) Petitioner asserts that Patent Owner “fail[s] to meaningfully address” the arguments in the petition, but there *are no arguments* in the petition as to why a POSITA would have been motivated to apply Kokonaski-166's seal in a manner different than that of Kokonaski-166. Again, Petitioner fails to carry its

burden. *ActiveVideo Networks, Inc.*, 694 F.3d at 1328 (citing *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. at 418).

Fourth, Petitioner's arguments regarding a POSITA's alleged motivation to implement Howell-158's teachings within Kokonaski-166 is rife with inaccuracies. (Reply, 21-22.) Kokonaski-166 expressly notes the importance of aesthetics as a design consideration, and adding unnecessary elements such as metal and insulation detract from those considerations. (POR, 40-42.) For example, Kokonaski-166 uses a large silicone seal for water resistance, and would not have been motivated to sacrifice wearability by using the bulky, water-resistant silicone seal as an insulating layer.¹ (EX-2014, ¶¶83-84.) Petitioner admits that its proposed motivation is not preferable, but in conclusory fashion argues that a POSITA would have somehow used Howell-158's "one example" of double-sided sticky tape as inspiration to modify Kokonaski-166's silicone seal. (Reply, 23.)

¹ Petitioner again mischaracterizes its position that silicone is insulative as unrebutted (Reply, 22), but as explained immediately above, it is neither unrebutted nor necessarily correct.

Regardless, Petitioner does not adequately address Patent Owner's arguments that a POSITA would have had any motivation to use Howell-158's teaching of double-sided sticky tape to modify Kokonaski-166 when doing so would also impede removability and ease of component replacement. (*Id.*; POR, 41-42.) While Petitioner claims that Howell-158's double-sided sticky tape provides for replaceability, that argument is absent in the Petition, is unsupported attorney argument, and mischaracterizes Howell-158. The portion of Howell-158 that Petitioner relies upon for this argument does not refer to the double-sided sticky tape, and it requires that the entire temple tip be removed from Howell-158's eyeglasses. (EX-1006, ¶[0171].) Further, that portion of Howell-158 does not describe replacement of certain electronics, but rather a small portion of the eyeglasses that Howell-158 admits is "not [even] considered as part of the temple." (*Id.*)

Additionally, as Kokonaski-166 does not disclose reliance on metal frames, there is no motivation to modify Kokonaski-166 to use its silicone material as an insulating layer, particularly given that there would be no insulation being provided by Kokonaski-166's silicone material for non-metal frames. (EX-2014, ¶¶83-84.)

B. Claims 2-9, 11, and 13-18

Claims 2-9, 11 and 13-18 all depend from claim 1. Petitioner provides no arguments or explanations that overcome the deficiencies laid out in Patent Owner's

Response. Accordingly, for the same reasons set forth above and in Patent Owner's Response, claims 2-9, 11, and 13-18 are patentable.

**VII. GROUND 6: THERE WAS NO MOTIVATION TO COMBINE
KOKONASKI-999 WITH HOWELL-158**

A. Claim 1

Because Patent Owner has identified a flaw in Petitioner's combination of Kokonaski-999 and Howell-158, Petitioner attempts to depart from its articulation of Ground 6 in the petition. (Reply, 25.) Petitioner's Ground 6 expressly relies on Kokonaski-999's disclosure of conductive portions of the frame. (Petition, 69.) Petitioner now seeks to pivot to "other options" purportedly disclosed in Kokonaski-999, but these arguments have been waived. (Reply, 25.) *See also, Wasica Finance GMBH v. Continental Automotive Sys., Inc.*, 853 F.3d 1272, 1285 (Fed. Cir. 2017) (quoting *Smithkline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1319 (Fed. Cir. 2006)) ("Our law is well established that arguments not raised in the opening brief are waived."); *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d at 1381.)

Moreover, Petitioner's asserted motivation to combine was based on Kokonaski-999's inclusion of conductive frame portions, which according to Petitioner, allegedly necessitated an insulating layer. (Petition, 69.) Petitioner's abandonment of its only argument in the Petition concedes that there is no

motivation to combine, and Petitioner does not articulate why an insulating layer would have otherwise been necessary. (EX-1009, ¶32; EX-2014, ¶89.)

Petitioner also attempts to mischaracterize Patent Owner's responsive arguments as relying on a "teaching away" and a misunderstanding of the law. (Reply, 24.) But in doing so, Petitioner fails to acknowledge the relevance of Kokonaski-999's teachings in showing a lack of motivation to modify Kokonaski-999, particularly where Petitioner's combination contradicts Kokonaski-999's teachings. (Pet., 43). That is, Petitioner does not dispute Patent Owner's point that Kokonaski-999 teaches an alternative to the combination that Petitioner proposes, such that a POSITA would not have been motivated to combine Kokonaski-999 with Howell-158 as proposed by Petitioner. (POR, 44-45.)

There is no motivation to combine Kokonaski-999 and Howell-158, because doing as Petitioner suggests **(1)** would have defeated the stated purposes of the references; and **(2)** overlooks superior alternatives to Petitioner's proposed combinations. (POR, 43-45.) Kokonaski-999 expressly states that having conductive portions of a frame would *provide* electrical functionality to Kokonaski-999's eyeglasses. (POR, 44.) Petitioner suggests adding insulation, which would *impede* that very electrical functionality. (Petition, 69.) Petitioner does not dispute

this. (Reply, 25.) Accordingly, a POSITA would not have been motivated to apply Howell-158's teachings within the context of Kokonaski-999.

B. Claims 2-9, 11, and 13-18

Claims 2-9, 11 and 13-18 all depend from claim 1. Petitioner provides no arguments or explanations that overcome the deficiencies laid out in Patent Owner's Response. Accordingly, for the same reasons set forth above and in Patent Owner's Response, claims 2-9, 11 and 13-18 are patentable.

VIII. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board find challenged claims 1-18 patentable.

Date: August 4, 2025

Respectfully submitted,

KING & SPALDING LLP

BY: /Brian Eutermoser/

Brian Eutermoser

Registration No. 64,058

*Attorney for Patent Owner
e-Vision Optics, LLC*

CERTIFICATION OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned **PATENT OWNER'S SUR-REPLY TO PETITIONER'S REPLY** specified in 37 C.F.R. § 42.24 have 5,567 words, in compliance with the 5,600 word limit set forth in 37 C.F.R. § 42.24. This word count was prepared using Microsoft Word 365 v.2022.

Date: August 4, 2025

Respectfully submitted,

KING & SPALDING LLP

BY: /Brian Eutermoser/
Brian Eutermoser
Registration Number 64,058

Attorney for Patent Owner
e-Vision Optics, LLC

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **PATENT OWNER'S SUR-REPLY TO PETITIONER'S REPLY** was served by filing the documents through the Patent Trial and Appeal Case Tracking System (P-TACTS) on August 4, 2025 and courtesy copies were also served via electronic mail, in their entireties on the following:

Ali S. Razai (Reg. No. 60,771)
ali.razai@morganlewis.com
Benjamin B. Anger (Reg. No. 62,207)
ben.anger@morganlewis.com
MLB-Luxottica-IPR-541@morganlewis.com
Morgan, Lewis & Bockius LLP
600 Anton Boulevard, Suite 1800
Costa Mesa, CA 92626-7653
Phone: (714) 830-0600
Fax: (714) 830-0700

*Counsel for Petitioner
Luxottica of America Inc.*

Alexander B. Stein (Reg. No. 71,397)
alexander.stein@morganlewis.com
Jacob L. Peterson (Reg. No. 65,096)
jacob.peterson@morganlewis.com
Morgan, Lewis & Bockius LLP
1301 Second Avenue, Suite 3000
Seattle, WA 98101
Phone: (206) 274- 6400
Fax: (206) 274-640

Date: August 4, 2025

KING & SPALDING LLP

BY: /Brian Eutermoser/
Brian Eutermoser
Registration No. 64,058

*Attorney for Patent Owner
e-Vision Optics, LLC*