

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. IPR2024-01070

Patent No. 8,801,174

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

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<i>Wilson v. Martin</i> , 789 F. App’x 861 (Fed. Cir. 2019)	7

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.) (excerpted)
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.) (excerpted)
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

Exhibit	Description
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 Granting Joint Stipulation to Schedule Additional Dates, Dkt. 56 (April 18, 2024 C.D. Cal.)
2011	U.S. Patent 8,801,174 File History
2012	U.S. Patent Application Pub. 2006/0023158 (“Howell-158”)
2013	<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.)
2014	<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.)
2015	<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.)
2016	Declaration of Professor James H. Oliver, Ph.D.
2017	<i>Curriculum Vitae</i> of Professor James H. Oliver, Ph.D.

Patent Owner's Sur-Reply to
Petitioner's Reply for *Inter Partes* Review
U.S. Patent No. 8,801,174

Exhibit	Description
2018	<i>e-Vision Optics, LLC and Vision Smart Optics, Inc. v. Luxottica Group S.P.A. and Luxottica of America Inc.</i> , Case No. 8:23-cv02013 AB (SHK), Luxottica's (Petitioner's) Opening Claim-Construction Brief, Dkt. 76 (C.D. Cal., Aug. 30, 2024) ("Petitioner's Claim Construction Brief")
2019	Second Translation of Japanese Patent Application Publication No. S58-113913 ("Hattori-913 Second Translation")

I. INTRODUCTION

Petitioner has not met its burden to prove, by a preponderance of the evidence, that the challenged claims of the '174 patent are unpatentable.

Petitioner repeatedly mischaracterizes Patent Owner's arguments in an effort to divert attention from the key issues at hand. In doing so, Petitioner fails to substantively respond to many of Patent Owner's critical points.

Regarding the first claim set, Petitioner argues that Patent Owner's interpretation of "constrain" is "unsupported by either the intrinsic or extrinsic record." (Reply, 1.) However, the parties appear to apply the very same construction of "constrain." (Section II, *infra*.) To the extent any dispute exists, it is the degree to which the electronics module must be held in a fixed position—specifically, whether minor movement is permissible. Importantly, Petitioner does not contest Patent Owner's position that the '174 patent explicitly distinguishes "constrain" from "substantially constrain," indicating that a constrained module will be held in a fixed position without minor movements. (Section II, *infra*.) Instead, Petitioner effectively argues that judicial estoppel should bar such an interpretation, while failing to address whether judicial estoppel is appropriately applied in these circumstances. It is not. (*Id.*)

Regarding the second claim set, Petitioner mischaracterizes the parties' dispute as whether the preamble is limiting or not, a point that is ultimately irrelevant.

Regardless of whether the preamble is limiting, the second claim set recites process steps (i.e., method steps), which Petitioner has not shown to be disclosed or rendered obvious by the cited prior art.

For at least these reasons, and for the further deficiencies discussed below and in Patent Owner's response, Petitioner has failed to carry its burden, and the challenged claims should be found not unpatentable.

II. CLAIM CONSTRUCTION

Petitioner purports to apply the plain and ordinary meaning of “constrain,” relying on the specification's definition of “constrain” as consistent with that plain and ordinary meaning. (Petition, 10 (citing EX-1001, 11:52-57).) The disclosure Petitioner cites defines “constrain” as “when the first electrical conductor is configured to provide support (i.e., a restraining force) for the electronics module to retain the module in a fixed position within the temple.” (EX-1001, 11:52-57.)

This is identical to the understanding of “constrain” Patent Owner applies in its response:

- “Petitioner fails to show that the prior art discloses or renders obvious *conductors that constrain an electronics module*, such that the *electronics*

module is physically secured by the *conductors* to retain the *module* in a fixed position within the temple.” (POR¹, 34.)

- “Therefore, the prosecution history confirms that *constrain* requires (1) a restraining force and (2) retaining the *electronics module* in a fixed position, and a POSITA would have understood the same.” (POR, 39.)
- “[A]s required by the claim language and the intrinsic record, ‘*electrical conductors...configured to couple the electronics module to the first temple to constrain the electronics module*’ (limitation 1[i]) requires that the *electronics module* be physically held in place in a fixed position.” (POR, 39.)
- “[N]owhere does Petitioner show that Brunton ‘frictionally retained’ contact pins *physically secure or provide a restraining force to the hearing aid to retain the hearing aid in a fixed position within the temple.*” (POR, 41.)
- “Petitioner has not shown that these contact pins disclose or suggest providing a restraining force to *constrain* the hearing aid and physically hold it in place.” (POR, 41.)
- “Petitioner has not shown—nor does Brunton disclose, teach, or suggest—that Brunton’s electrical conductors *constrain* the hearing aid unit and physically hold it in place in a fixed position.” (POR, 42; *see also id.*, 47, 52-53.)

¹ On April 10, 2025, Patent Owner filed a Corrected Patent Owner Response at Paper 22. All citations herein to the Patent Owner Response are to Paper 22.

Thus, based on the petition and Patent Owner's response, the parties agree that to constrain the electronics module, the conductors must be configured to provide a restraining force that retains the module in a fixed position. Petitioner confirms this understanding in its reply. (Reply, 2 (“The ’174 patent defines ‘constrain’ in accordance with its ordinary meaning: ‘provid[ing] support (i.e. a restraining force)’ and ‘retain[ing] the module in a fixed position within the temple.’”).)

Confusingly, Petitioner then goes on to suggest there is disagreement as to the proper construction, but in doing so, mischaracterizes Patent Owner's position. (Reply, 2-3, 5-6.) Specifically, Petitioner incorrectly states that Patent Owner “contends that ‘constrain’ requires ‘the electrical conductors physically hold the electronics module in place by a physical insert...’ and further demands ‘a tightening force by use of a fastener.’” (Reply, 2-3 (quoting POR, 35-36, 41), 5-6.) But the above-cited portions of Patent Owner's response make clear that Petitioner's selected quotations came from descriptions of *exemplary* embodiments in the specification and were not intended to limit the defined meaning of “constrain.” (See POR, 36, 41.)

For example, Patent Owner cites an embodiment in which the “electrical conductors ‘***may be inserted through an opening***’ of the electronics module and apply pressure to a surface of a component therein, which ***thereby restricts the module from being removed*** from the temple or moved within the temple.” (POR, 36 (citing EX-

1001, 11:59-65) (emphasis added).) But this permissive language describing one exemplary embodiment is not meant to limit “constrain” to conductors inserted through an opening or those which restrict the module from being removed, as Petitioner contends. (Reply, 2-3, 5-7.)

Patent Owner also cites an alternative exemplary embodiment in which a fastener is used to apply a mechanical tightening force to clamp the conductors to physically secure the electronics module. (POR, 37-38 (citing EX-1001, Fig. 16).) Patent Owner contrasts this example with Brunton's contact pins, explaining that they do not *constrain* the hearing aid unit “(e.g., applying a tightening force by use of a fastener).” (POR, 41.) But Patent Owner nowhere indicates that such a fastener is required; indeed, Patent Owner makes clear that in some embodiments, a fastener may not be necessary due to the restraining force of the conductor. (POR, 7 (“this design ‘reduce[s] the need to use multiple fasteners for the electronics module because, for instance, at least a portion (e.g., one side of) the electronics module may be held in place by the electrical conductor’”).) Patent Owner cites these exemplary embodiments to support its interpretation of “constrain”—i.e., that to constrain the electronics module, the conductors must be configured to provide a restraining force that retains the module in a fixed position. (POR, 34, 39, 41, 42.)

The parties' dispute, therefore, appears to be limited to the level or degree to which the claimed electronics module must be constrained. (Reply, 7-8; POR, 37-39.) Patent Owner contends that the '174 patent explicitly distinguishes between "substantially constrain" and "constrain" and explains that substantial constraint allows for "some minor movement of the electronics module within the temple." (POR, 37-38 (quoting EX-1001, 11:65-12:3).) A POSITA would, therefore, understand that to "constrain" the module, the module must be held in a fixed position *without* minor movement. (POR, 37-39.) Petitioner appears to take issue with this interpretation but does not dispute that the intrinsic record supports this construction. (Reply, 7-8.) Rather, Petitioner argues only that Patent Owner's interpretation here allegedly contradicts Patent Owner's position at the district court. (Reply, 7-8.)

Petitioner's argument fails for two reasons. First and foremost, a determination as to the degree to which the claimed module must be constrained is unnecessary, since the cited prior art does not disclose or render obvious applying a restraining force sufficient to hold an electronics module in a fixed position, regardless of whether "constrain" allows for minor movement or none. (*See* Section III, *infra*.) Second, Petitioner has made no attempt to show that judicial estoppel is applicable here; it is not.

“The Supreme Court provides several non-exclusive factors that guide a court’s decision whether to apply judicial estoppel: (1) the party’s later position must be ‘clearly inconsistent’ with its earlier position; (2) the party must have succeeded in persuading a court to adopt the earlier position, thereby posing a ‘risk of inconsistent court determinations’; and (3) ‘the party seeking to assert an inconsistent position would derive an unfair advantage or impose an unfair detriment on the opposing party if not estopped.’” *PayPal Holdings, Inc. v. Fintiv, Inc.*, IPR2023-00744, Paper 29 at 21-22 (PTAB Oct. 2, 2024) (quoting *New Hampshire v. Maine*, 532 U.S. 742, 750-51 (2001)) (declining to apply judicial estoppel where factor (2) had not been met because it was not clear from the record that the district court had agreed with patent owner’s claim construction arguments, despite the district court construing the term as patent owner wished); *Wilson v. Martin*, 789 F. App’x 861, 873 (Fed. Cir. 2019) (declining to apply judicial estoppel where factor (2) was not met because “statements were made in a different context and were part of a different evidentiary record”).

The district court has not yet construed the claim terms at issue, and the parallel proceeding is stayed pending the Board’s final written decision. *E-Vision Optics, LLC v. Luxottica Grp S.P.A.*, No. 8:23-cv-02013 AB (SHKx), slip op. (C.D. Cal. Jan. 17, 2025), Dkt. 121. That is, the district court has not adopted either party’s position and

there is no risk of inconsistent decisions, since the parallel case is stayed. Accordingly, factor (2) is not met, and application of judicial estoppel would be inappropriate.

The circumstances here are not comparable to the cases cited by Petitioner. (Reply, 8.) For example, in *CommScope Techs. LLC v. Dali Wireless Inc.*, the patent owner asked the Federal Circuit to uphold a judgment of no invalidity but overturn a judgment of no infringement, which would have required that the Federal Circuit apply different meanings of a single claim term for purposes of the infringement and validity analyses. 10 F.4th 1289, 1298-99 (Fed. Cir. 2021). The Federal Circuit declined to do so. *Id.* The decision in *White v. Dunbar* is even less relevant, as there, the Court found the proffered construction of a claim term in a reissued patent was too broad, such that the reissued patent was a material expansion and unlawfully granted. 7 S. Ct. 72, 75 (1886). Both cases stand for the unremarkable proposition that claims must be construed consistently when determining infringement and validity. Neither case addresses when judicial estoppel is appropriate. As discussed above, there is no estoppel here, since there has been no court decision construing the claims.

III. PETITIONER HAS NOT SHOWN INDEPENDENT CLAIM 1 OR ITS DEPENDENT CLAIMS 2-14 TO BE UNPATENTABLE

A. Grounds 1 & 2: Brunton Does Not Anticipate Or Render Obvious Conductors to Constrain the Claimed Electronics Module

The '174 patent speaks for itself in describing “constrain” as “provid[ing] support (i.e., *a restraining force*) for the electronics module *to retain the module in a fixed position* within the temple”—a description that is supported and affirmed by the prosecution history. (POR, 36-39; Section II, *supra*.) As discussed above, Petitioner mischaracterizes Patent Owner's interpretation of “constrain” as *requiring* “a tightening force by use of a fastener” when Patent Owner merely recites this *example* of “constrain” from the '174 patent's specification. (Section II, *supra*; Reply, 10; POR, 37-38 (citing EX-1001, Fig. 16, 11:65-12:3).) The '174 patent and prosecution history both provide a clear definition of “constrain,” which contradicts Petitioner's overly broad interpretation that would include simple friction between two touching electrical components. (POR, 35-36.)

Petitioner misleadingly describes Brunton as teaching that the “frictional restraint [of the contacts] achieves...holding the hearing aid unit in ‘a fixed or stationary position.’” (Reply, 10 (quoting EX-1003, 2:17-22).) Brunton does not teach this. Brunton merely describes one objective of its overall invention as having a “casing [that] is continuously in a fixed or stationary position and is not constantly

flapping against clothing or portions of the body.” (EX-1003, 2:17-22.) But nowhere does Brunton attribute this feature to its contact pins, and based on the whole of Brunton’s disclosure, a POSITA would not understand the fixed-position feature to be attributable to Brunton’s contact pins. (POR, 39-43.)

That Brunton teaches “snapping” the unit into place is similarly unhelpful to Petitioner’s argument (Reply, 9), since this disclosure does not mean that Brunton’s contact pins themselves constrain the unit (alleged module). For example, the challenged patent describes a capacitive touch switch that may be “snapped-in” or out of the enclosure as a result of being molded—i.e., “pressure fitted to the enclosure.” (EX-1001, 22:49-51, 28:59-62.) Brunton does not disclose that snapping the unit (and the transistor) into the frames relies on contact pins to constrain the unit and transistor. To the contrary, a POSITA would understand that Brunton achieves a fixed position of the casing by using a “cover plate 31 that is secured in position over the unit 17 and the transistor 29 with screws 32.” (EX-1003, 3:74-4:1.) If the contact pins were sufficient to hold the unit (alleged module) and transistor in a fixed position, the cover plate would be superfluous and unnecessary. (POR, 44.)

Petitioner also tries to rewrite Brunton’s disclosure of sockets “frictionally retain[ing]” delicate contact pins as “use of a frictional *restraining* force.” (Reply, 10.) Even if Petitioner’s characterization were accurate (which it is not), a POSITA would

not understand Brunton's sockets to apply sufficient restraining force to hold the unit 17 (and transistor) in fixed positions. (POR, 42-44 (citing EX-2016, ¶¶87-90).) For example, Brunton teaches that its sockets—which are designed to receive the pins—are themselves “frictionally held in the cavity,” though Brunton does not teach how such friction is achieved. (EX-1003, 3:71-74.) A POSITA would, therefore, understand that the sockets are incapable of holding the unit in a fixed position when they themselves are held only by friction. (*See id.*) This understanding is supported by Brunton's disclosure of a screwed-in cover plate to ensure the unit, sockets, and transistor are all held within the frames. (EX-1003, 3:74-4:1.)

That Figure 20 of the '174 patent also discloses contact pins (Reply, 11) is irrelevant, since the specification does not describe Figure 20 as having a “constrained” module. (*See* EX-1001, 27:34-28:16.) Rather, Figure 20 (and related Figure 19) merely illustrate an exemplary electronics module having pogo pins (a type of spring-loaded pin not invented until roughly two decades after the filing of Brunton's patent)—without illustrating or describing any particular embodiment of the frames. (*See id.*) In contrast, Figures 15 and 16 disclose an embodiment in which the electronics module *is* constrained, teaching that the conductors are each held in electrical contact with the conductive paths by a “fastener,” such that the conductors constrain the module from movement. (POR, 36-37.)

Finally, Petitioner's conclusion that the cover plate necessarily does not hold electronics in place because it is added after the electronics are inserted and "frictionally held" in the temple (Reply, 11) mischaracterizes Brunton and contradicts a POSITA's understanding of the reference. Brunton does not describe the unit itself as being "frictionally held" in the cavity. (EX-1003, 3:71-74.) The quoted language refers only to the "sockets for the transistor and unit" as being either frictionally held in the cavity or embedded in the temple. (*Id.*) Brunton never, in fact, describes the unit as being held in place due to friction, let alone held in a fixed position as a result of its contact pins. Rather, Brunton teaches placing a cover plate over the entirety of the unit, transistor, and sockets, and screwing it into place. (EX-1003, 3:74-4:1, Fig. 1, Fig. 6.)

Accordingly, Brunton does not anticipate or render obvious claim 1.

B. Ground 4: Kokonaski-999 In View of Brunton Does Not Render Obvious Conductors to Constrain the Claimed Electronics Module

In its response, Patent Owner raises two issues with Petitioner's challenge of claim 1 under Ground 4: (1) that Ground 4 relies on Brunton as allegedly disclosing "constrain[ing]" the electronics module; and (2) that a POSITA would not have been motivated to modify Kokonaski-999 in view of Brunton. (POR, 45-48.)

Petitioner replies only to Patent Owner's first point by cross-referencing its discussion of Brunton. (Reply, 12.) These arguments are addressed above in Section III(A), *supra*.

On the second point, Petitioner fails to rebut the assertion that a POSITA would not have been motivated to modify Kokonaski-999 in view of Brunton to use electrical conductors to couple and constrain the module when Brunton more clearly teaches the use of a cover plate and screws to secure its components. (POR, 47.)

Accordingly, Ground 4 does not render obvious claim 1.

C. Ground 5: Hattori-913 Does Not Render Obvious Using Conductors to Constrain the Claimed Electronics Module

The parties' dispute as to whether Hattori-913 discloses or renders obvious conductors configured to *couple* the integrated circuit to the temple to *constrain* the integrated circuit turns on two questions: (1) whether the ZEBRA connector's mere placement within the temple is a *coupling* to the temple; and (2) whether applying force to "maintain contact" with the integrated circuit is the same as *constraining* the integrated circuit. (See POR, 48-53; Reply, 12-14.) The answer to both questions is no.

Petitioner tries to distinguish between "physical restraint or binding" and "coupl[ing]." (Reply, 12-13.) First, and most critically, it is unclear—if the ZEBRA connector is merely placed within the temple and not physically coupled to the

temple—how the conductor's connection is responsible for constraining the integrated circuit, as further required by claim 1. (EX-1001, cl. 1.) Where the ZEBRA connector is intended to maintain contact with the integrated circuit (as Petitioner concedes) but is **not** physically coupled to the temple, the connector will move with the integrated circuit, as opposed to constraining the integrated circuit.

Second, while the '174 patent discloses a great number of possible meanings to which the term “couple” “**may**” generally refer (Reply, 12-13; EX-1001, 6:52-7:2), the explicit language of claim 1 provides the context in which a POSITA must interpret “couple.” *See Atlas IP, LLC v. Medtronic, Inc.*, 809 F.3d 599, 605 (Fed. Cir. 2015) (“[W]e generally give words of a claim their ordinary meaning in the context of the claim.”). Specifically, claim 1 recites conductors that “are configured **to couple** the electronics module to the first temple **to constrain the electronics module.**” (EX-1001, cl. 1.) It is unclear how a coupling would provide the force necessary to constrain a module if of the constraining element is merely “disposed within” the frames. (POR, 50-52.) Accordingly, based on the plain language of claim 1, a POSITA would not have understood a conductor configured to couple two components to include a conductor that is merely placed within one of those components.

Petitioner complains that EX-2019 (Patent Owner's translation) contains no indication on its face of its translation by a team of two translators, while failing to

acknowledge that it is in possession of Patent Owner's supplemental evidence confirming exactly that. (Reply, 13 n.4.) On April 21, 2025, more than two months before Petitioner's reply, Patent Owner served two translator declarations in response to Petitioner's objection on this issue. Petitioner does not reference this evidence. And Patent Owner's translation demonstrates that Hattori-913 merely discloses placing its integrated circuit within a recess of the temple. (POR, 51-52; EX-2019, 68.) Accordingly, a POSITA would not understand Hattori-913's ZEBRA-style connector (alleged conductor) to be configured to couple the integrated circuit to the first temple. (*See id.*)

As to whether the ZEBRA-style connector is configured to constrain the integrated circuit, Petitioner's argument remains illogical. (Reply, 13-14.) As Petitioner acknowledges, the parties and experts agree that a ZEBRA-style connector relies on pressure between contacting surfaces to maintain contact and a connection. (*Id.*; POR, 52-53.) That is, when Hattori-913's connector is sandwiched between an integrated circuit and a hinge, mechanical compression of the connector creates pressure between the contacting surfaces. (*See* EX-1006, FIG. 6.) But this contact between the integrated circuit and the connector does not hold the integrated circuit in a fixed position—i.e., it does not constrain the integrated circuit. (POR, 52-53.)

Accordingly, Ground 5 does not render obvious claim 1.

D. Grounds 6 & 7: Delorenzo Does Not Anticipate or Render Obvious Claim 1

1. Grounds 6 & 7: Delorenzo Does Not Anticipate or Render Obvious An Electronics Module Within The Temple

Patent Owner first contends that if Petitioner is pointing to the entire temple 15 as the alleged electronics module—an interpretation Petitioner confirms in its reply (Reply, 15)—then Petitioner has failed to show that Delorenzo anticipates or renders obvious an electronics module *disposed at least partially within the first temple*. (POR, 55.) Petitioner does not respond to Patent Owner's argument. The petition includes a one-sentence assertion that the temple 15 is disposed at least partially within “the fully assembled temple of the eyewear (temple tip 13 plus temple 15).” (Petition, 57.) But the temple piece 15 is not disposed—even partially—*within* anything. (See EX-1007, Figs. 2-3.) And Petitioner does not explain or elaborate on its argument. “It is Petitioner's burden to explain specifically how the references would be combined to produce the claimed invention.” *Lowe's Home Centers, LLC v. Epistar Corp.*, IPR2018-00932, Paper 7 at 19 (PTAB Nov. 1, 2018); *see also In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

Accordingly, Grounds 6 and 7 do not anticipate or render obvious claim 1.

2. Grounds 6 & 7: Delorenzo Does Not Anticipate or Render Obvious Conductors to Couple and Constrain the Claimed Electronics Module

Petitioner's identification of the temple piece 15 as the alleged electronics module is also problematic for its argument concerning limitation 1[d], which requires that the first and second conductors are configured to couple the electronics module to the first temple to constrain the electronics module. (EX-1001, cl. 1.) In its reply, Petitioner clarifies its position that the bifurcated connector 30 and projection or male element 31 are the alleged "first and second conductors." (Reply, 15-16.) But in arguing that these connectors couple the alleged electronics module to the first temple, Petitioner appears to describe the front portion of the temple (temple tip 13) as the "first temple," when it previously described the first temple as being the "fully assembled temple of the eyewear (temple tip 13 plus temple 15)." (*Compare* Reply, 60 *with* Petition, 57.) It cannot be both.

If the first temple is limited to the front portion, then the prior art fails to disclose or render obvious an electronics module disposed at least partially "***within***" the first temple. (Section III(D)(1), *supra*.) If the first temple comprises the entirety of the temple, then—not only is the module not disposed partially "within" the first temple, but the alleged electronics module ***is*** a portion of the first temple and is not, therefore,

constrained by the relied-upon connectors. Petitioner's inconsistent positions for different limitations of claim 1 causes Grounds 6 and 7 to fail.

IV. PETITIONER HAS NOT SHOWN INDEPENDENT CLAIM 15 TO BE UNPATENTABLE

Under Grounds 8 and 9, Petitioner mischaracterizes the parties' dispute as whether or not the preamble of claim 15 is limiting—but that is irrelevant. (Reply, 59-60.) Patent Owner cites the preamble of claim 15 only to show that claim 15 (and its dependents) are process claims and not system claims. (EX-1001, cl. 15.) Whether or not the preamble itself is limiting does not change the fact that the recited steps are process steps. And it is Petitioner's burden to show that each recited process step is disclosed or rendered obvious by the prior art. *See Intouch Techs., Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1346-47 (Fed. Cir. 2014). Petitioner has not done so. (POR, 58-63.)

In its reply, Petitioner belatedly cites general disclosures of Kokonaski-999, Howell-596, and Eichelberger not included in the petition, but Petitioner has not shown that these disclosures disclose or render obvious the recited claim limitations. (Reply, 18-21.) Accordingly, Grounds 8 and 9 do not render obvious the process steps of claim 15.

Additionally, under Ground 9, a POSITA would not have been motivated to modify Howell-596 in view of Eichelberger and Sikonowiz. (POR, 61-63.)

Petitioner's only response to Patent Owner's argument is a legal one—i.e., that “case law does not require that a particular combination must be the preferred, or the most desirable, combination.” (Reply, 22.) Though this may be true, mere existence of alternative arrangements does not suffice without articulating “any reason to substitute one for another or any advantages that would flow from doing so.” See *Virtek Vision Int'l ULC v. Assembly Guidance Sys., Inc.*, 97 F.4th 882, 886-87 (Fed. Cir. 2024); *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1075 (Fed. Cir. 2015) (citing *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007)) (“The Supreme Court's passage does not establish that it suffices for obviousness that a variation of the prior art would predictably work, but requires consideration of whether, in light of factors such as ‘design incentives and other market forces,’ the hypothetical skilled artisan would recognize the potential benefits and pursue the variation.”). Articulation of a clear motivation to substitute prior art elements is particularly necessary where the proposed combination would introduce unnecessary complexity. (POR, 62; *Apple, Inc. v. Uusi, LLC*, No. IPR2019-00358, 2020 WL 4546916, at *36-37 (PTAB. Aug. 4, 2020) (finding no motivation to combine and no reasonable expectation of success where “the proposed combination would have involved unduly complex redesign”).)

V. PETITIONER HAS NOT SHOWN DEPENDENT CLAIMS 16-19 TO BE UNPATENTABLE

Because Petitioner has not shown that the prior art renders obvious independent claim 15, dependent claims 16-19 are valid for the same reasons. Additional reasons that the prior art does not render obvious dependent claims 16 and 18 are addressed below.

A. Ground 9: A POSITA Would Not Have Been Motivated To Combine The Teachings of Howell-596 and Eichelberger To Render Obvious Dependent Claim 16

Petitioner makes two arguments that Howell-596 is analogous to the '174 patent: (1) that Howell-596 is in the same field of endeavor as the '174 patent; and (2) that Howell-596 purportedly addresses the same problem as the '174 patent—aesthetic incorporation of electronics into eyewear without harming functionality. (Reply, 23-25.) Neither is correct.

Petitioner vaguely and ambiguously asserts that the '174 patent's field “encompasses eyewear with electronic components and falls within the broader category of consumer electronics intended for widespread use.” (Reply, 23.) It is, therefore, unclear exactly how narrow or broad Petitioner defines the relevant field. To the extent Petitioner attempts to define the field as “consumer electronics,” such a restatement of the patent's field is far too broad. *KSR*, 550 U.S. at 420 (holding that the Federal Circuit erred in holding that patent examiners and courts should look only

to the problem the patentee was trying to solve); *see also In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992) (finding that a prior art could not “be considered to be within [the challenged patent’s] field of endeavor merely because both relate to the [same] industry”).

Even if Petitioner had defined the field more narrowly, Howell-596 is directed to a radiation monitoring system. (POR, 64; EX-1015, Title, Abstract, ¶¶ [0003]-[0006], cls. 1, 12, 17.) Howell-596 discloses a variety of applications in which the monitoring system may be implemented, including—among others—clothing, jewelry, accessories, containers, bags, and other consumer products. (EX-1015, ¶¶ [0231], [0183].) To say that Howell-596 is directed to electronic eyewear, as Petitioner suggests, would also mean that Howell-596 is directed to electronic clothing, jewelry, accessories, containers, bags, etc. (*See id.*) This characterization of Howell-596’s field is far too broad, and contradicted by Howell-596’s clear indication that it is directed to a radiation monitoring system. (EX-1015, Title, Abstract, ¶¶ [0003]-[0006], cls. 1, 12, 17.)

Petitioner alternatively characterizes Howell-596 as pertinent to the problem of “incorporate[ing] electronic [sic] into eyewear without harming the aesthetics and functionality of the eyewear.” (Reply, 24-25.) Petitioner selectively quotes Howell-596’s disclosure in support. (*Id.*, 25.) But Howell-596 does not address the problem

of incorporating electronics without harming aesthetics of the eyewear. (*See* POR, 64; EX-1015, ¶ [0183].) For example, the “minimal impact on design” to which Petitioner refers does not relate to aesthetics as Petitioner suggests; rather, Howell-596 explains its goal to minimize design impact such that “the end product can quickly be transformed into an end product capable of providing UV monitoring.” (EX-1015, ¶ [0183].) In the context of an eyeglass frame, Howell-596 provides examples such as an opening, cavity, or container to hold the monitoring system. (*Id.*) That is, Howell-596 refers to avoiding “changes or complications” to the manufacturing process for incorporating its monitoring system. (*See id.*) Howell-596 is not pertinent to addressing aesthetics.

Accordingly, Howell-596 is not analogous to the '174 patent, and Ground 9 fails to render obvious claim 16.

Additionally, Petitioner—in both its petition and reply—fails to address that claim 16 is a method claim with process steps. (*See* POR, 64-65; Reply, 25-26.) And Petitioner therefore fails to establish that Ground 9 renders obvious the challenged claim 16 step of “disposing the enclosure substantially within a temple of an eyeglass frame.” *See Intouch*, 751 F.3d at 1346-47.

B. Ground 9: A POSITA Would Not Have Been Motivated To Combine The Teachings of Howell-596, Eichelberger, and Sikonowiz To Render Obvious Dependent Claim 18

Petitioner still fails to adequately demonstrate that a POSITA would have been motivated to apply Sikonowiz's teachings to the electronic eyewear disclosed in Howell-596. (POR, 65-66.) For example, Petitioner replies that a POSITA would have had a reasonable expectation of success in applying Sikonowiz's conformal coating to Howell-596's PCB merely because conformal coatings were commonplace. (Reply, 26-27.) But the mere existence of a technique in the prior art does not demonstrate that it could have been successfully applied, with a reasonable expectation of success, to the proposed combination of Howell-596 and Eichelberger. *See Virtek Vision*, 97 F.4th at 888 (finding substantial evidence did not support the Board's motivation to combine findings as a matter of law, where "this case involves nothing other than an assertion that [] two coordinate systems were disclosed in a prior art reference and were therefore 'known'").

Moreover, a POSITA would not have reasonably expected success given that application of Eichelberger would frustrate Howell-596's entire purpose—i.e., detecting UV radiation via its exposed sensor. (EX-1015, ¶¶ [0003]-[0005], [0075] ("The first side of the circuit board 112 should be exposed at least partially to external light (e.g., sunlight). Hence, the openings 118 and/or 120 of the temple 108 shown in

Fig. 1 can provide openings so that light can impinge upon the solar cell 114 and the UV detector 116.”.) Sikonowiz discloses only a few methods of applying a conformal coating, i.e., dipping, spraying, or vacuum deposition. (EX-1016, 136.) And Sikonowiz further teaches that “[i]deally, a conformal coating covers not only the circuit board but the components mounted on it as well.” (*Id.*) Petitioner proposes no modification to Sikonowiz’s teachings, nor does it address any motivation to make any modifications. (Petition, 86; Reply, 26-27.) Petitioner does not address how such an application would be implemented within the context of Howell-596 without sacrificing all of Howell-596’s functionality as a radiation monitoring device. (Petition, 86; Reply, 26-27.) That is, Petitioner still fails to demonstrate that a POSITA would have been motivated to apply Sikonowiz’s teachings to the electronic eyewear of Howell-596. Accordingly, Ground 9 does not render obvious dependent claim 18.

VI. CONCLUSION

For the above reasons, the Board should issue a Final Written Decision finding the challenged claims patentable over the grounds in the Petition.

Respectfully submitted,

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Date: August 4, 2025

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 5,203 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,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **PATENT OWNER'S SUR-REPLY TO PETITIONER'S REPLY** were served by filing this document through the Patent Trial and Appeal Case Tracking System (P-TACTS), as well as by delivering a copy via electronic mail on August 4, 2025, in their entirety on the following:

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