

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.; AND
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner,

v.

OURARING, INC.
Patent Owner.

PGR2024-00030
U.S. Patent No. 11,868,178

PATENT OWNER'S SUR-REPLY

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. SCHRÖDER-BASED GROUNDS FAIL	1
A. Schröder’s failure to disclose limitation 1[c] is fatal to Grounds 1, 2, and 4.	1
1. Schröder does not disclose a battery positioned between internal and external housing components.....	2
2. Schröder does not disclose the shape and size of the battery configured to fit within the cavity of the housing components.	8
B. None of Schröder-based grounds disclose 1[d] and 1[e].	12
C. Schröder-Niwa combination fails.....	14
D. Schröder-Yuen combination fails.....	16
III. GROUNDS 5/6: NIWA AND NIWA-SCHRÖDER FAIL	17
IV. CLAIM 3 IS PATENTABLE	20
V. SECONDARY CONSIDERATIONS	21
A. Petitioner’s incorporation of expert declarations by reference should be given no weight.....	21
B. Oura is entitled to presumption of nexus.	22
C. Oura is a commercial success.....	24
1. Petitioner’s claim that sales are based on unclaimed features is false.....	26
2. Petitioner’s argument that contribution from Gens. 3 and 4 to Oura fails to show success is also flawed.....	28
3. Petitioner’s argument that Oura did not create a market segment within the wearable market is legally deficient.....	29
D. Evidence of copying of Oura Ring by the Industry.	30
E. The ’178 patent fulfilled a long-felt need.	30
VI. CONCLUSION.....	32

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>Al-Site Corp. v. VSI Int’l, Inc.</i> , 174 F.3d 1308 (Fed. Cir. 1999)	2
<i>Bd. of Regents of the Univ. of Tex. Sys. v. BENQ Am. Corp.</i> , 533 F.3d 1362 (Fed. Cir. 2008)	18
<i>Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP</i> , 616 F.3d 1249 (Fed. Cir. 2010)	19, 20
<i>Certain Smart Wearables Devices, Systems, and Components Thereof</i> , 337-TA-1398 (Initial Determination April 18, 2025), <i>aff’d</i> , Comm’n Op. (ITC Aug. 21, 2025)	15, 16, 24
<i>Continental Can Co., USA, Inc. v. Monsanto Co.</i> , 948 F.2d 1264 (Fed. Cir. 1991)	26, 27
<i>In re Cuozzo Speed Techs. LLC</i> , 793 F.3d 1268 (Fed. Cir. 2015)	20
<i>Fox Factory, Inc. v. SRAM, LLC</i> , 944 F.3d 1366 (Fed. Cir. 2019)	23, 25
<i>Immunex Corp. v. Sandoz Inc.</i> , 964 F.3d 1049 (Fed. Cir. 2020)	15
<i>Intelligent Bio–Sys., Inc. v. Illumina Cambridge Ltd.</i> , IPR2013-00517, 2015 WL 996355 (P.T.A.B. Feb. 11, 2015), <i>aff’d</i> , 821 F.3d 1359 (Fed. Cir. 2016)	22
<i>Juniper Networks, Inc. v. Swarm Technology LLC</i> , IPR2021-01445, Paper 62 (P.T.A.B. Feb. 7, 2023).....	5, 8
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Other Authorities	
37 CFR § 42.6(a)(3)	22

TABLE OF EXHIBITS

Exhibit No.	Description
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Exhibit No.	Description
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2016	Claim Construction Order, <i>Certain Smart Wearable Devices, Systems, and Components Thereof</i> , Inv. No. 337-TA-1398, Order No. 17 (Oct. 23, 2024)
2017	RESERVED
2018	Declaration of Dr. Patrick Mercier.
2019	Declaration of Andrew Clarke, CFA (Outside Attorney's Eyes Only - Protective Order Material)
2020	Deposition Transcript of Dr. Brian Anthony, Volume I, dated February 25, 2025
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2022	RESERVED
2023	Wikipedia - Printed Circuit Board (Dr. Anthony Depo. Ex. 4)
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2026	Coin Cell vs. Button Cell vs. Pouch Cell: Understanding the Differences
2027	Ultrahuman Air Ring Teardown Images
2028	RingConn Smart Ring Teardown Images

Exhibit No.	Description
2029	Oura Ring Gen. 3 Tear Down Images
2030	Oura Ring Gen. 4 Tear Down Images
2031	Capture from Go Inside Oura Ring Video
2032	Capture of Oura Ring Instagram Page Site
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2103	Samsung Electronics Co., Ltd. and Its Subsidiaries Consolidated Statements of Profit or Loss For the Years Ended December 31, 2020 and 2021

Exhibit No.	Description
2104	Samsung Electronics Co., Ltd. and Its Subsidiaries Consolidated Statements of Profit or Loss For the Years Ended December 31, 2021 and 2022
2105	Samsung Electronics Co., Ltd. and Its Subsidiaries Consolidated Statements of Profit or Loss For the Years Ended December 31, 2022 and 2023
2106	Samsung Electronics Co., Ltd. and Its Subsidiaries Interim Consolidated Statements of Profit or Loss For the Three- and Nine-Month Periods Ended September 30, 2023 and 2024
2107	FY22 USD Consolidated Income Statement (Outside Attorney's Eyes Only - Protective Order Material)
2108	FY23 USD Consolidated Income Statement (Outside Attorney's Eyes Only - Protective Order Material)
2109	FY24 USD Consolidated Income Statement (Outside Attorney's Eyes Only - Protective Order Material)
2110	Q1 FY25 USD Consolidated Income Statement (Outside Attorney's Eyes Only - Protective Order Material)
2111	Rings sold ALL TIME – Cumulative (Outside Attorney's Eyes Only - Protective Order Material)
2112	Gross Booked Walk (Outside Attorney's Eyes Only - Protective Order Material)
2113	Ultrahuman Marketing Graphics
2114	RingConn Marketing Graphics
2115	Pingu: Another User-friendly Interface Device 2012
2116	Initial Determination of the U.S. International Trade Commission on Validity of the '178 patent (April 18, 2025)
2117	RESERVED

Exhibit No.	Description
2118	Deposition Tr. of Mr. Michael Davies (Outside Attorney's Eyes Only - Protective Order Material)

I. INTRODUCTION

Oura is a pioneer in the smart ring market, and its Oura Ring is embodied in the claims of the '178 Patent. Petitioner fails to rebut any of Oura's arguments and offers no sound basis for why any challenged claims are unpatentable.

II. SCHRÖDER-BASED GROUNDS FAIL

Schröder (Ground 1), Schröder-Niwa (Ground 2), and Schröder-Yuen (Ground 4)¹ fail to render claim 1 and corresponding dependent claims obvious.

A. Schröder's failure to disclose limitation 1[c] is fatal to Grounds 1, 2, and 4.

Limitation 1[c] requires a specific structural configuration. Ex-1001, 44:57-64. Petitioner relies exclusively on Schröder as satisfying this limitation for Grounds 1, 2, and 4. Pet., 22-24; 35; 58. With the exception of *one* passing mention of an unshown optional battery, Schröder fails to disclose any of the structural elements of 1[c].

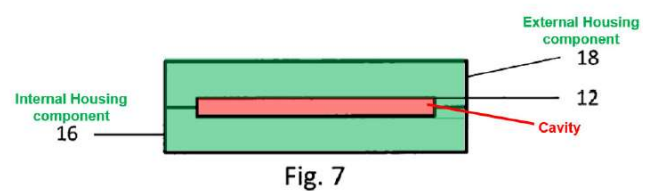
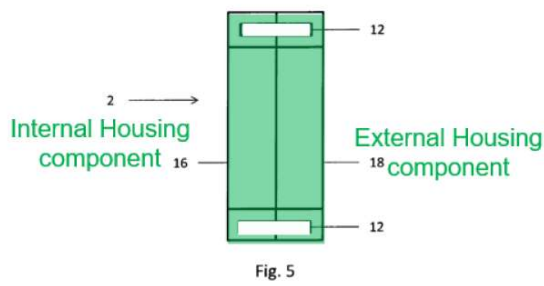
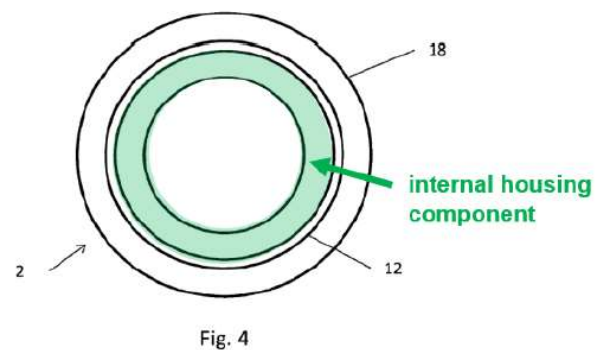
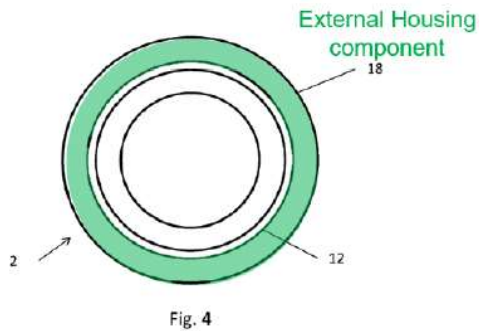
Instead, Petitioner attempts to fill Schröder's gaps through conclusory pronouncements by its expert: "Schröder's battery *must* fit within the ring's cavity, between housing components." Reply, 2 (emphasis added). But Schröder does not

¹ Petitioner's Reply inadvertently refers to Schröder-Yuen combination (Ground 4) as Ground 3. Reply 1, 9. Ground 3 is Schröder-Mestas for claims 3 and 12.

suggest such positioning—indeed, it suggests the opposite. For example, Schröder indicates merely that the “energy storage device” is connected to the chip module 10 or can be connected directly to the antenna coil 8. Ex-1007, 11:46-50, 11:54-55; 11:58-61. Petitioner concedes Schröder is silent on the battery’s exact position but contends “a POSITA would know to place it inside the ring.” Reply, 2. Petitioner’s bald assertion is contrary to all the evidence leading up to the invention embodied in the challenged claims (Ex-1081, 35:4-37:21) and is an exercise in hindsight. *Al-Site Corp. v. VSI Int’l, Inc.*, 174 F.3d 1308, 1324 (Fed. Cir. 1999) (“Skill in the art does not act as a bridge over gaps in substantive presentation of an obviousness case, but instead supplies the primary guarantee of objectivity in the process.”).

1. Schröder does not disclose a battery positioned between internal and external housing components.

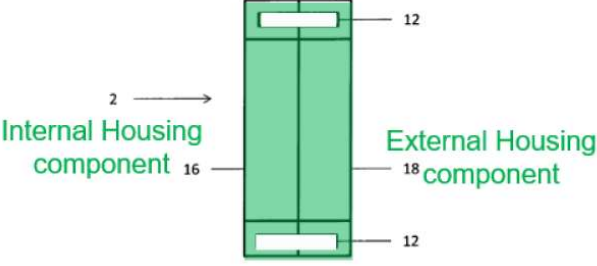
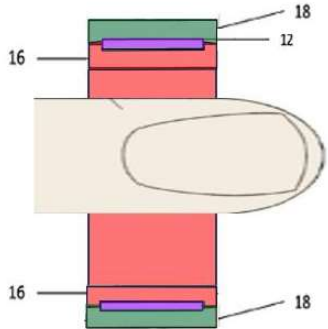
1[c] requires that “a battery [is] positioned...between the internal housing component and the external housing component.” Ex-1001, 44:57-64. The Petition labeled outer and inner portions of Fig. 4 as external and internal housing components. Specifically, Petitioner suggested that ring half 16 of Schröder is an “internal housing component” and ring half 18 is an “external housing component”:



Pet., 19-21; 23.

Petitioner's arguments rest heavily on incorrect figure labels and arbitrary coloring, each of which misrepresents Schröder. Schröder does not disclose internal or external housing components. Petitioner's expert exposed this arbitrariness at his deposition where he attempted to "correct" the modified figures to fit his narrative. Ex-2020, 21:18-23:4; 23:21-24:21.

Petitioner changes course yet again in its Reply (at 6) providing yet another modified figure, Fig. 5', completely divorced from the Schröder's disclosure and unsupported by the arguments in the Petition:

Petition	Reply
 Fig. 5	 Fig. 5'

This fabricated modification of Fig. 5 now removes the center line that denoted the top and bottom halves of the ring coming together, extending the internal lines (in red) all the way to inlay 12 (in purple) to abut against its arbitrary external housing (now in green) such that inlay conveniently lays between an internal and external housing. Reply, 5-6 (labeling the “internal housing component (16, red) and external housing component (18, green).”

None of these arbitrary modifications are shown or described anywhere in Schröder, much less argued in the Petition. Petitioner’s excuse that Fig. 7 allegedly is a different embodiment than the disclosures of Schröder that teaches two ring halves is belied by the evidence. *Id.*, 5-6; Ex-1079, ¶32; *see also* Ex-2020, 21:15-50:7 (Petitioner’s expert’s evasiveness on this issue during his deposition is plain).

As Dr. Mercier testified, Fig. 7 is simply a different *cross-section* of the same configuration that Schröder discusses throughout its disclosure. Ex-1081, 89:22-25 (“[A]s a POSITA, I don’t think that I would look at figure 7 and assume that this is some new ring construction that uses ring halves in kind of a new and unexpected way that wasn’t introduced before.”). Dr. Mercier’s testimony is supported by Schröder. Ex-1007, 12:43-45 (“FIGS. 6 to 10 show ***different cross sections*** through a finger-ring 2, consisting of ring-shaped components 16, 18 of the finger-ring 2 and of an inlay 12.”); 3:51-52. Petitioner’s attempt to change the theories in the Petition should be rejected. *Juniper Networks, Inc. v. Swarm Technology LLC*, IPR2021-01445, Paper 62 at 28-29 (P.T.A.B. Feb. 7, 2023) (Board rejecting Petitioner’s new theory that was not raised in Petition). Nevertheless, Petitioner’s new and unsupported Fig. 5’ still misinterprets Schröder.

As Oura explained, (POR 57, 84), Figures 4 and 5 show top and bottom ring halves 16 and 18 that are joined in the middle of the ring (like two halves of a bagel), not inner and outer surfaces of a ring:

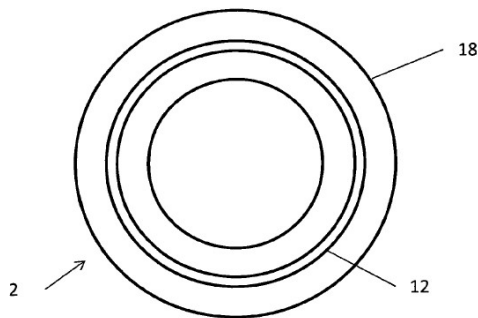
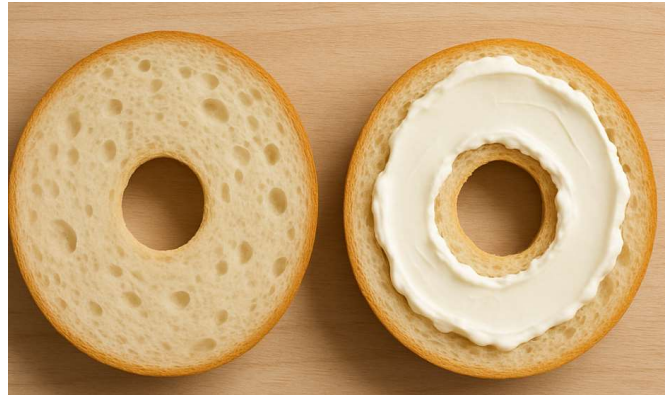


Fig. 4



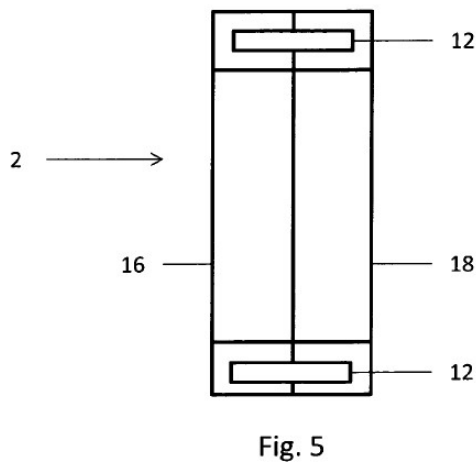
Ex-1007, 12:5-6 (“FIG.4 shows a longitudinal section through a finger-ring 2. Here, an inlay 12 is inserted into one half 18 of the finger-ring 2. . . .The finger-ring 2 consists of two ring halves 16 and 18. The two ring halves 16 and 18 respectively have a recess into which the inlay 12 is inserted.”).

Dr. Mercier testified that “figure 4 is showing one half of the ring sliced down the middle”:

[A] good analogy for this would be thinking like a bagel. The normal dimension that you would cut a bagel is in half. You would open up the bagel. To complete the analogy, maybe you’d use your finger and dig a little trench into one half of the bagel or possibly both sides of the bagel, put some cream cheese in here, which would correspond in this analogy to the inlay, and then take those two halves and bring them back together. That’s my interpretation of the ring halves of figure 4.

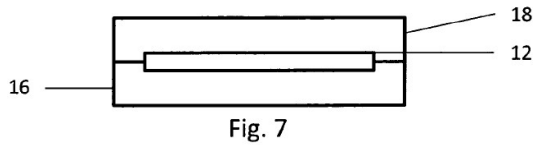
Ex-1081, 82:21-83:11.

Fig. 5 of Schröder corresponds to Fig. 4 where the same ring halves are joined together:



Ex-1007, 3:47-50; 12:6-7; Ex-1081, 83:12-19; 84:16-17 (“figure 5 is a cross section right down the middle of...these two ring halves.”)

Fig. 7 again shows the *same* configuration of ring halves 16 and 18. Dr. Mercier explained that “figure 7 is simply just showing figure 5 rotated by 90 degrees and with a different cross section through the ring. So it’s actually showing the two ring halves with the carrier foil in between them,” (Ex-1081, 85:13-23) as shown below:



Id., 84:4-85:8; 86:12-21; 93:23-95:11.

“FIGS. 6 to 10 show different *cross sections* through a finger-ring”—not different *embodiments*. Ex-1007, 3:51-52; 12:43-45. Petitioner’s new theory attempting to correct its original misinterpretation of Schröder by modifying Fig. 5 in Reply should be rejected. *Juniper Networks*, IPR2021-01445, Paper 62 at 28-29. In sum, even if a POSITA would place a battery inside the ring of Schröder as suggested by Petitioner (which Schröder does not disclose), the battery would still not be “positioned . . . between the internal housing component and the external housing component.”

2. Schröder does not disclose the shape and size of the battery configured to fit within the cavity of the housing components.

Petitioner’s hindsight-driven arguments continue when it argues that “Schröder’s components, including the battery, would have been understood to be inside the ring, because placing components inside a ring was well known in the art.”

Reply, 2 (citing Ex-1002, ¶¶70-86, 307). Petitioner's citation to its own expert declaration refutes that statement; Dr. Anthony repeatedly points to rings where the components, including the battery, are placed *externally*:

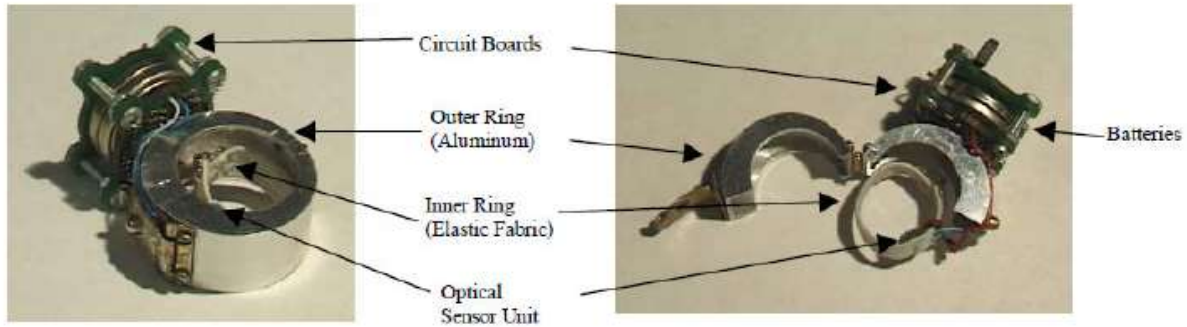
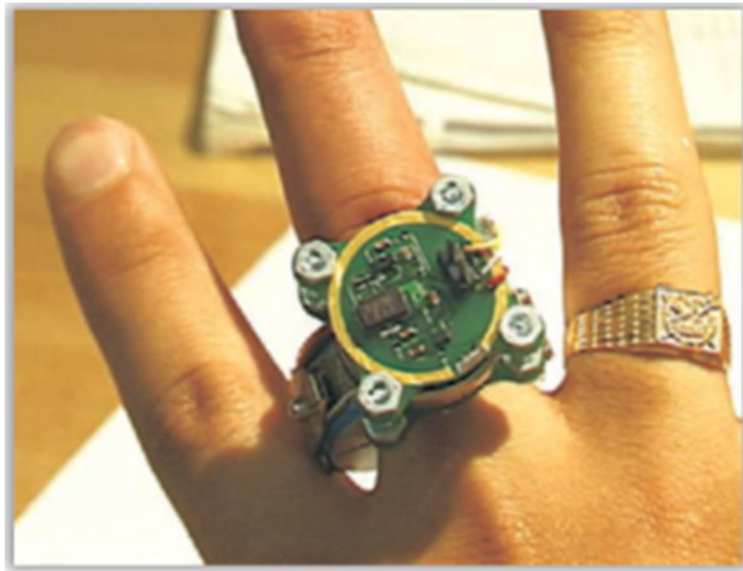


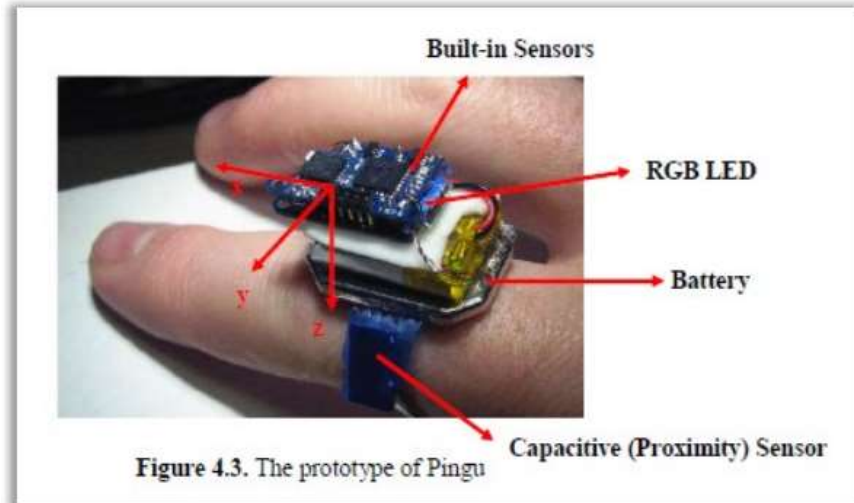
Figure 1 : Isolating ring sensor designed for motion artifact minimization

Ex-1002, ¶71 (citing Ex-1032).



Id., ¶85 (citing Ex-1037, 7).

This is consistent with Dr. Mercier's explanation of the state of the art in 2013. Ex-2018, ¶¶58-71. As Dr. Mercier explained, in 2012-2013, the components were stacked on top of the ring:



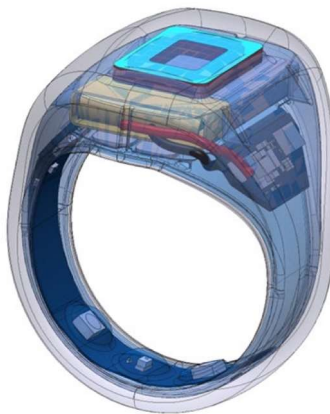
Ex-2115, 31.

Dr. Mercier's own efforts in creating a smart ring in 2013 as he was establishing the Center of Wearable Sensors at UCSD also undercuts Petitioner's premise. Ex-2018, ¶70. Dr. Mercier testified:

[I]n the 2012-2013 time frame, as I was beginning to launch the center ...I was aware of smart ring designs, including...the designs by Professor Harry Asada at MIT, in part because that's where I went to grad school, and I met with him there....And I very quickly concluded that the most logical way to build such a design was to follow the prior art, including Professor Asada's and the other art that I found in the literature on this topic, and place the battery at the top of the device.

Ex-1081, 35:16-37:10. Indeed, the smart ring that the CWS team started on in 2012-2013 and eventually built illustrates that even an expert that was far beyond the skill of a POSITA around 2013—with full knowledge of the prior art—would not have understood how to construct an internal and external housing components and then place the components, including battery, inside the circumferential portions of those housing components. Ex-1082, 231:10-234:17.

Placement of all components on top of the ring was not limited to academic researchers. Oura’s own efforts with Oura Ring Gen. 1 (2015)—prior to its acquisition and adoption of the ’178 patent—show that Petitioner’s conclusory claim that a POSITA would have known to place all the components including the battery within the internal circumferential surface of the ring are not reflected by reality:



Ex-2034; Ex-2018, ¶71; Ex-1082, 229:6-15.

In sum, nothing in Schröder teaches the size, shape, *or* the position of the optional battery. Petitioner’s rationale that “Schröder assumes that a battery that can

fit already exists,” and “[e]ven if Schröder is silent on the battery’s exact position, a POSITA would know to place it inside the ring,” is refuted by evidence to the contrary. Petitioner’s grounds are based on hindsight. *W.L. Gore & Assocs. Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983). Even if all that Petitioner professes were true, Schröder’s battery still would not be within internal and external housing components but rather spanning top and bottom ring halves.

Because Petitioner relies on Schröder’s disclosure of battery position for each of Grounds 1, 2, and 4 with respect to independent claim 1 (Pet., 22-24; 35; 58), Schröder’s failure to disclose element 1[c] is fatal for all three grounds, and Petitioner’s attempt to fill Schröder’s gaps is based purely on hindsight.

B. None of Schröder-based grounds disclose 1[d] and 1[e].

Schröder does not disclose internal and external housing components, and therefore cannot disclose “a printed circuit board disposed between the internal housing component and the external housing component” or that “one or more sensors electrically coupled with the printed circuit board ... [are] configured to acquire data from the user through the internal housing component.” Ex-1001, 44:66-45:1; 45:5-8.

Petitioner’s Reply again relies on changed theories arguing that “[w]hen viewing Schröder’s ring halves 16 and 18 configurations in Figure 7’s arrangement,

as shown in Figure 5’,” Schröder meets these limitations. Reply, 5-7. But Petitioner fails to offer any evidence in Schröder that suggests that Fig. 7 is a different *configuration* of the ring rather than a different “cross-section” of the same configuration. *Id.* Fig. 7 is simply a different *cross section* of the same ring configuration because Schröder repeatedly labels the ring halves 16 and 18 consistent with Figs. 4 and 5 and that different cuts of the same ring would result in the disclosed cross-section. Ex-1001, 3:51-52; 12:42-45; 12:45-55.

Schröder’s inlay is also not a PCB. Petitioner tries to backtrack Dr. Anthony’s use of the Wikipedia definition. Reply, 5. This is contrary to Dr. Anthony’s testimony. Ex-2020, 74:7-11; 76:14-20. The Wikipedia excerpt on which Petitioner relies specifies that a PCB is a “laminated sandwich structure of conductive and insulating layers, each with a pattern of traces...etched from one or more sheet layers of copper.” Ex-1081, 43:12-19. Schröder’s inlay lacks every one of those elements. It is a single-layer strip such as a tape made of PET, Kapton, etc. Ex-1007, 12:28-29.

Dr. Mercier explained that a POSITA would require, at minimum, etched or printed conductive traces, multiple layers, and mounted components before calling a structure a “printed circuit board.” Ex-1081, 69:18-71:17. When asked whether inlay 12 could be a PCB, Dr. Mercier responded that while Kapton and PET are

materials sometimes used in flexible PCBs, that does not necessarily make it a circuit board. *Id.*, 80:8-81:10. In other words, the mere use of Kapton or PET that is typically 100 micron thin does not convert a passive foil into a multilayer, printed wiring board. *Id.*, 98:1-9. Petitioner offers no evidence that a POSITA in 2013 would have called the antenna inlay a printed circuit board and offers no evidence that the chip module could be located around a portion of a circumference of an interior surface of the internal housing.

C. Schröder-Niwa combination fails.

The Schröder-Niwa combination also fails. Petitioner argues that “Niwa discloses flat components that can be stacked or housed in a curved ring.” Reply, 8. But Niwa only discloses stacking the electronic components on top of the ring. Ex-1005, Fig. 22, ¶[0219]. Petitioner argues that “claims do not require specific battery circuit location” (Reply, 8), but the claims *do* require such a location: “between the internal housing component and the external housing component.” Ex-1001, 44:66-45:4. Neither Niwa nor Schröder disclose this.

Petitioner also attempts to refute that a POSITA would not be motivated to combine Schröder with Niwa noting that “motivation to combine can come from POSITA knowledge, the problem’s nature, or common sense.” Reply, 8. While true, Petitioner must still explain why a POSITA would be motivated to combine or

modify the references and provide the basis for a reasonable expectation of success. *See Immunex Corp. v. Sandoz Inc.*, 964 F.3d 1049, 1067 (Fed. Cir. 2020). Petitioner fails to do so.

Indeed, the ITC has analyzed the proposed Schröder-Niwa combination and concluded that a POSITA would have no reason to combine them. *Certain Smart Wearables Devices, Systems, and Components Thereof*, 337-TA-1398 (Initial Determination April 18, 2025) (Ex-2116) at 101-107, *aff'd*, Comm'n Op. (ITC Aug. 21, 2025). The ALJ explained:

Dr. Rosing credibly testified that one of skill would understand that the thickness of Schröder's inlay is on the order of 100 microns. This stands in stark contrast to the battery in Niwa's sensor, which is between two and five mm, or at least 20 times the thickness of the inlay. Respondents provide no logical reason why one of skill would modify Niwa's ring to accommodate Schröder's 100-micron inlay, when Niwa's components take up a much larger volume.

Ex-2116, 101.

The ALJ also correctly noted that the "proposed combination also fails to address fundamental design differences between Niwa and Schröder. Niwa is directed to a ring in which a flat battery 20 is disposed above the user's finger and a sensor 10 is disposed below Respondents propose combining asymmetric Niwa

with the symmetric embodiment of Schröder's Fig. 4, despite Niwa's express teachings that run counter to the proposed modifications." *Id.*, 102.

The ALJ found that the proposed modification was driven by hindsight. *Id.*, 105-106 ("More problematically, [Respondent's expert] testimony was improperly guided by hindsight. Mr. Alarcon testified that one of skill would understand that the battery would be disposed in the inlay of Schröder's Fig. 4 because, 'where else is it going to be?' This reasoning, however, is belied by Schröder itself, which only addresses a battery with respect to Fig. 3."); Ex-1007, 11:45-67. Petitioner's rationale for combining Schröder with Niwa is similarly deficient.

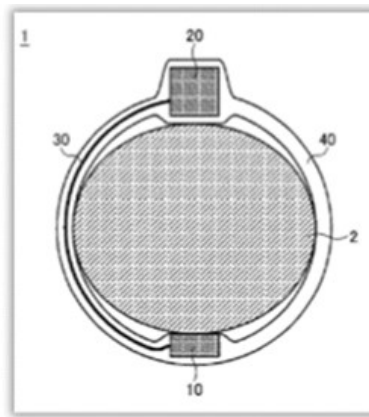
Finally, the Schröder-Niwa combination fails because neither discloses an internal and external housing components even if a POSITA would have combined the two references.

D. Schröder-Yuen combination fails.

Like the Petition, the Reply (9) again fails to explain why or how a POSITA would disregard the size, shape, or functionality of the PCB in Yuen that is too large and planar to fit inside Schröder that is approximately 100-micron and configured to carry a thin inlay. Ex-1081, 96:5-9 ("an inlay, which might be...maybe 100 microns in width – or in thickness, for example, couldn't possibly have components fitted inside of it").

III. GROUNDS 5/6: NIWA AND NIWA-SCHRÖDER FAIL

Neither Niwa alone (Ground 5) nor Niwa-Schröder (Ground 6) discloses internal and external housing components, and thus fails to disclose limitations 1[a]-[e]. In contrast to the '178 patent that discloses separate structures that form the internal and external housing components (*see e.g.*, Ex-0001, Fig. 8 and 13), Niwa discloses a unitary, component-less housing 40, shown in Fig. 22 below.

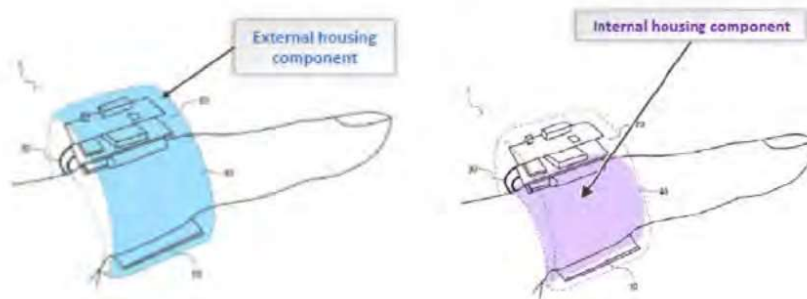


Ex-1005, Fig. 22.

Contrary to Petitioner's Reply, at 15, claim 1 requires "internal housing component" and "external housing component" to be separate components. Petitioner's interpretation of Niwa's unitary housing reads at least the limitations "component" and "coupled with" completely out of the claims. Under Petitioner's interpretation, the term "housing" is synonymous with both "external housing component" and "internal housing component," and "the internal housing component coupled with the external housing component" has no meaning at all.

This approach is contrary to law and should be rejected. *See Bd. of Regents of the Univ. of Tex. Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1371 (Fed. Cir. 2008) (“Different claim terms are presumed to have different meanings.”).

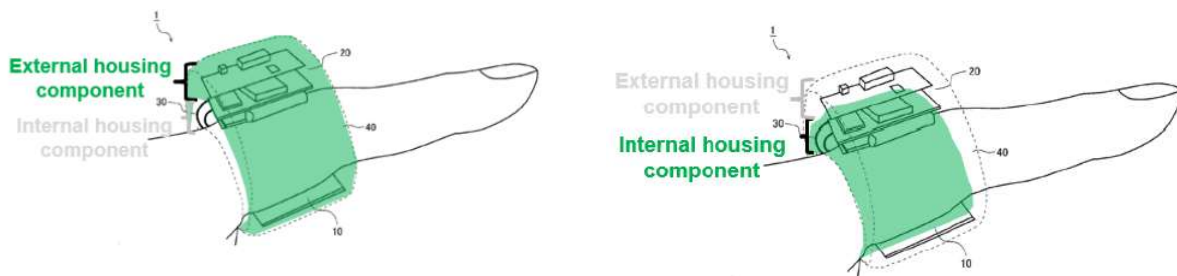
The ALJ addressed this argument in the ITC investigation based on a characterization of Niwa similar to that offered by Petitioner here. *Compare* Ex-2116, 84 *with* Pet., 77-79.



Resp. Br. at 24, *annotating* Niwa at Fig. 26; *id.* at 30, *annotating* Niwa at Fig. 26.

FIG.26

FIG.26



The ALJ concluded that recitation of separate components creates a rebuttable presumption that those elements are distinct components of the patented invention.

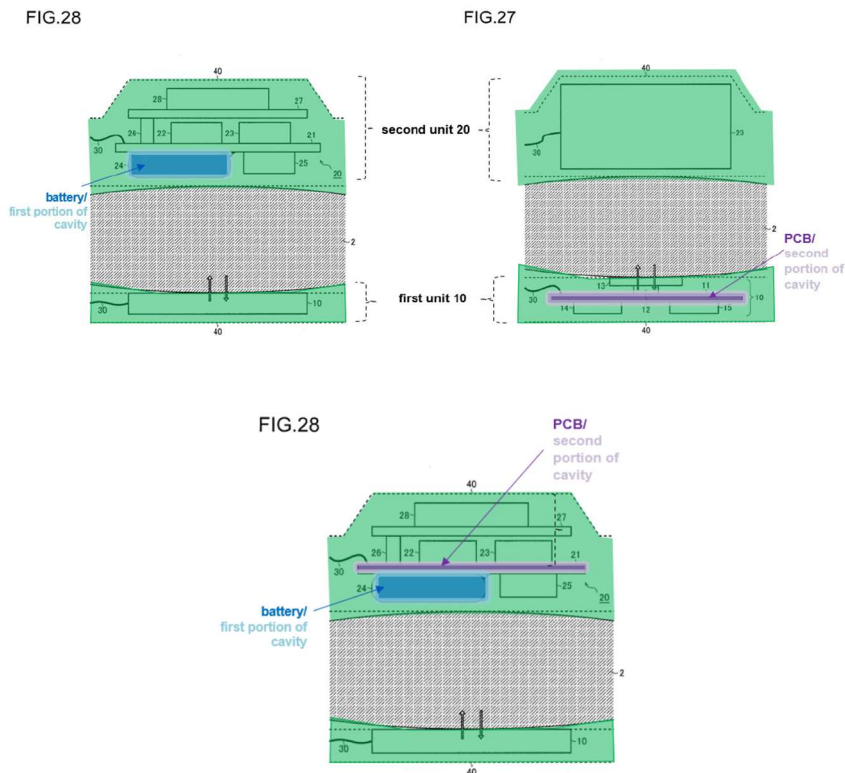
Ex-2116, 85; *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1255 (Fed. Cir. 2010). Indeed, recently the Federal Circuit reaffirmed that “where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the patented invention.” *Regeneron Pharms., Inc. v. Mylan Pharms. Inc.*, 130 F.4th 1372, 1379 (Fed. Cir. 2025) (citing *Becton, LP*, 616 F.3d at 1255).

The ALJ concluded that “[t]he rebuttable presumption is supported here by other claim language requiring that the internal and external housing components are coupled.” Ex-2116, 85 (citing *In re Cuozzo Speed Techs. LLC*, 793 F.3d 1268, 1280 (Fed. Cir. 2015) (“[I]t would be illogical to regard one unit as being ‘attached’ to itself.”)). The presumption was also “supported by the specification, which shows and discusses individual components of the housing as separate.” *Id.* In contrast to the disclosure of the ’178 patent, “Niwa discloses a unitary housing 40 and does not disclose separate external and internal housing components.” *Id.*, 86. The Board should come to the same conclusion.

Finally, as noted above, the Niwa-Schröder combination fails because neither discloses internal and external housing components even if a POSITA would have combined them.

IV. CLAIM 3 IS PATENTABLE

Claim 3 is patentable for a separate reason in addition to those set forth above. Claim 3 (Grounds 1-2, 5-6), requires a first and second portion of the cavity to be partially overlapping. Petitioner alleges that “Niwa teaches components mounted on PCBs” or “the battery can be directly mounted to the PCB so that portion of the cavity where the battery is located partially overlaps with the cavity portion where the PCB is located.” Reply, 10. Petitioner again resorts to arbitrary coloring and assignment of cavity portions and alleged PCBs in Niwa (Pet. 40-41):



In doing so, Petitioner inconsistently assigns the “first portion” and “second portion” of the cavity for its Claim 3 analysis with the portions it claims are present in Niwa

in Claim 1 (Pet. 37). This inconsistency highlights the hindsight-driven analysis for Claim 3 and Petitioner's failure to consistently assign the first and second portions of the cavity across its analysis for Claims 1 and 3 renders Claim 3 patentable.

V. SECONDARY CONSIDERATIONS

A. Petitioner's incorporation of expert declarations by reference should be given no weight.

The Reply is often supported only by incorporation by reference to Petitioner's two supplemental declarations. Petitioner devotes less than ten pages of reply addressing secondary considerations (Reply, 18-27) but repeatedly cites multiple sections—or the entire declarations—that span over 190 pages and 300 paragraphs. Ex-1079, ¶¶69-94; Ex-1080, ¶¶18-295. For example, Petitioner cites the *entirety* of the two expert declarations for its conclusory statement that “Earlier generations with the same features did not succeed, and sales increases are due to unclaimed features....” Reply, 20; *id.*, 21 (again citing entirety of Ex-1079 and 1080 without any pin cites.); *id.*, 20 (citing wholesale “Sections III.H, III.E6, III.E.8” of expert decl.); *id.*, 22 (citing over 50 paragraphs).

Such incorporation by reference to rebut secondary considerations should be rejected. 37 CFR § 42.6(a)(3); *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, IPR2013-00517, 2015 WL 996355, at *9 (P.T.A.B. Feb. 11, 2015) (excluding arguments in Petitioner's Reply that relied on “in-depth explanations and supporting

documentary evidence presented in [expert's] Declaration” in contravention of 37 C.F.R. § 42.6(a)(3)’s prohibition on incorporation by reference), *aff’d*, 821 F.3d 1359 (Fed. Cir. 2016).

B. Oura is entitled to presumption of nexus.

Oura is entitled to presumption of nexus because the “evidence is tied to a specific product and that product embodies the claimed features, and is coextensive with them.” *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373–74 (Fed. Cir. 2019). The Oura Ring is Oura’s only product offering. Ex-2019, ¶13. Petitioner does not dispute that Oura Ring (Gens. 3 or 4) embodies the challenged claims. *See generally*, Reply, 18-20; Ex-2118, 52:15-17 (“I do not dispute that the Gen. 3 Horizon and the Oura Ring Gen 4 practice those claims.”).

First, Petitioner’s focus on the Oura Ring Application and Membership does not rebut the coextensive nature of the Oura Ring and the claimed ’178 patent technology. The Federal Circuit has “never held that the existence of one or more unclaimed features, standing alone, means nexus may not be presumed” because “there is rarely a *perfect correspondence* between the claimed invention and the product.” *Fox Factory*, 944 F.3d at 1374 (emphasis in original). Here, the Oura Ring works in conjunction with the Oura Application. Ex-2019, ¶¶20-21. The Application cannot receive or display *any* information absent the Oura Ring’s claimed ring form

factor and ability to collect the relevant information from the user's finger. *Id.*, ¶24. Indeed, the ALJ rejected similar arguments advanced by respondents that the existence of the Application means there can be no presumption of nexus. *Certain Smart Wearables Devices, Systems, and Components Thereof*, 337-TA-1398 (Initial Determination April 18, 2025) (Ex-2116) at 109-10 ("the evidence supports that the driver of the experience is the ring itself."), *aff'd*, Comm'n Op. (ITC Aug. 21, 2025). Petitioner's similar arguments should also be rejected.

Second, Petitioner's suggestion that Gen. 3 and 4's "sleek and comfortable design and materials are not claimed in the '178 Patent" also fails. Reply, 19. As Dr. Mercier testified, the claimed arrangement of the '178 patent that leverages the inner and outer housing components to form a cavity to allow the housing of a battery and components within the ring is what contributes to the "wedding band-like comfort and compactness." Ex-2018, ¶¶253-254. Such a design deviates from prior art that stacks components on top of the ring. *Id.*, ¶252. The specific structure of the Oura Ring is the invention disclosed and claimed.

Finally, Petitioner's argument that Oura's reliance on Oura Ring for objective indicia across four patents means that "nexus cannot be presumed" is also flawed. Reply, 19-20. Multiple patents covering essentially the same invention can share a presumption of nexus. *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1324–25 (Fed. Cir.

2016) (presuming nexus between a product and the asserted claims of two related patents where the patents covered essentially the same invention).

Here, U.S. Patent Nos. 11,874,702; 10,139,859; 10,281,953; and the '178 patent are part of the same family and claim essentially the same invention, namely, the structure of a finger-worn wearable ring device. Petitioner makes a sweeping statement that the four patents “do not cover the same invention,” yet Petitioner fails to identify any limitations that vitiate any presumed nexus. Reply, 19-20. That another patent from the *same* family as the '178 patent includes dependent claims directed to materials used for inner and outer housing components does not remove the presumption of nexus. *Fox Factory*, 944 F.3d at 1374.

Oura is entitled to a presumption of nexus based on the presented evidence. The ITC agreed. Ex-2116, 110 (“The evidence supports that Oura is entitled to a presumption of nexus, which respondents have not rebutted.”). The Board should come to the same conclusion here because Petitioner has offered no better evidence than the respondents in the ITC investigation.

C. Oura is a commercial success.

Petitioner does not materially dispute that Oura Ring Gens. 3 or 4 were a commercial success. Reply, 20-25. Although Petitioner’s expert opines that “Oura is not a *significant* commercial success” (Ex-1080, ¶22), Petitioner abandons this

position in the Reply. Reply, 20-25. The un rebutted evidence shows that Oura's Gens. 3 and 4 rings, embodied by the claims of the '178 patent, are an overwhelming commercial success:

- [REDACTED] rings sold since October 2021;
- [REDACTED] in ring revenue from 1/2022-12/2024;
- Increase in company valuation from [REDACTED] in 4/2021 (prior to the launch of Gen 3) to [REDACTED] as of 12/2024; and
- Nearly [REDACTED] of the smart ring market share.

Ex-2019, ¶¶26, 33, 35, 38, 42. Petitioner's expert begrudgingly admits that such sales volume and market share show *some* commercial success. Ex-2118, 15:13-17; 18:11-19 ("I would be unsurprised if it had at least some commercial success.").

Unable to dispute Oura's commercial success, Petitioner tries to pin Oura's success to other factors, such as (1) factors other than the ring form factor (the '178 Patented Technology), (2) "serendipitous timing," (3) sales from sources other than rings, or (4) the Oura Ring did not create a new market segment. Reply, 20-25. None of these reasons overcome the evidence of commercial success. Regardless, the patented invention need not be solely responsible for a product's commercial success provided a nexus between the success of the product and the patent exists. *Continental Can Co., USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1273 (Fed. Cir.

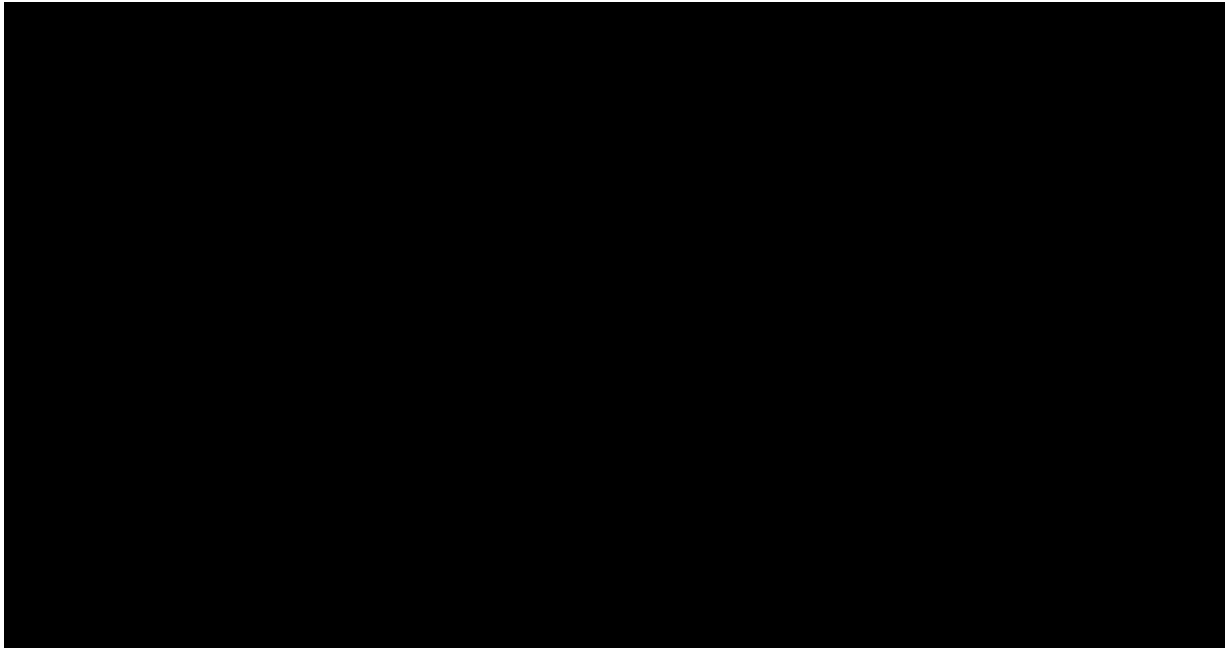
1991). The possible existence of other demand drivers for a product does not preclude a finding of commercial success; the patented technology can be just one driver of the product's success. *Id.*; Ex-2019, at ¶¶31. Nor do other unclaimed features that may also drive demand diminish the nexus between the ring form factor and marketplace success. Ex-2019, at ¶¶32-42.

1. Petitioner's claim that sales are based on unclaimed features is false.

Petitioner tries to focus on the earlier generations of Oura as a hook to argue that the earlier generations “were not *as* commercially successful,” and therefore Gens. 3 and 4's success cannot be attributed to the unique features of the '178 patent. Reply, 21. This is a red herring. While Petitioner offers a sweeping generalization that “[t]here is little difference from Gens. 1 and 2 to Gens. 3 and 4,” Petition ignores Gen. 1, for example, included components stacked on top of the ring similar to prior art. Ex-2034. Regardless, whether Gens. 1-2 were commercial success or not is irrelevant to the inquiry on whether Gens. 3 and 4 are commercially successful and the overwhelming evidence supporting their commercial success.

Petitioner claims that sales data does not distinguish between Gen 2 and Gen 3 sales data after Gen 3's launch. Reply, 21-22. Since manufacture of the old generation ceases once a new generation is launched (Ex-1083, 106:11-19), this transition period where both generations are available for sale is temporary and is

insufficient to explain the marked increase in sales from the twelve months prior to Gen 3's launch [REDACTED] to the 12 months after Gen 3's launch ([REDACTED]
[REDACTED]:



Ex-2019, Appx. 10. Even accounting for a transition period from Gen 2 to Gen 3, Petitioner fails to consider that in the following year, fiscal 2023, monthly sales were higher each month compared to that month in fiscal 2021 (during which only Gen 2 was available). *Id.*

Petitioner also broadly alleges that the sales of the Oura Ring is attributable to “serendipitous timing,” incorporating fifty paragraphs from its expert’s declaration. Reply, 22 (citing Ex-1080, ¶¶176-226). Petitioner (or its expert) never explains what is “serendipitous” about the launch of the Oura Ring Gen 3 or Gen 4.

Ex-2118, 40:12-41:15 (discussing other types of wearables). Such evidence shows not the “serendipity” of Oura’s success, but rather that Oura was a pioneer in smart ring products blazing a trail for others to follow.

Petitioner also suggests that the success of the Oura Ring is attributable to marketing. This ignores that marketing expenses as a percent of sales *decreased* from FY 2021 to the end of Q1 FY 2025. Ex-1083, 18:11-20:13; Ex-2019 (Appx. 4). Over time, less was spent on marketing to generate each dollar of sales. Ex-1083: 184:2-18. This is hardly suggestive that the success of the Oura Ring is due to marketing. Petitioner also ignores that Oura’s marketing highlights the very ring form factor that is the embodiment of the ’178 patent. Oura’s marketing efforts explicitly discuss its design and hardware capabilities, as well as its craftsmanship and discreet sensors. Ex-2019, ¶¶48-49; Ex-2098; Ex-2101.

These arguments were also rejected by the ALJ that found that Oura Ring was a commercial success, and the success was due to unique features of the form factor. Ex-2116, 109-112. The Board should find similarly here.

2. Petitioner’s argument that contribution from Gens. 3 and 4 to Oura fails to show success is also flawed.

Petitioner’s allegation that all revenues are not attributable to the Oura Ring is false. Reply, 23-24. Without the Oura Ring, there could be no revenue from ring sales, Oura Membership revenue, extended warranties, partnership commissions, or

from any of the other revenue streams. Ex-1083, 192:10-17. There is no evidence in the record that customers pay for a membership or warranty without owning a ring. Oura Ring is the fundamental product from which all other activities and derivative revenue streams are based. Indeed, the performance and success of Oura as a company is directly a result of the success of the Oura Ring embodying the '178 patented technology. Assuming, *arguendo*, that the other revenue streams were unrelated to the '178 patented technology, Petitioner fails to consider the fact that more than [REDACTED] of Oura's revenue is attributable to ring sales, totaling more than [REDACTED] Ex-2019, Appx. 4.

3. Petitioner's argument that Oura did not create a market segment within the wearable market is legally deficient.

Petitioner's assertion that Oura did not create a new market segment is irrelevant. Reply, 24-25. There is no requirement to show a nexus that the success of a product be measured only through the creation of a *de novo* market; Petitioner offers no authority to suggest otherwise. *Id.*

Moreover, Petitioner's entire premise is contradicted by third parties that refer to Oura as "one of the pioneers" of the smart ring segment and that Oura has "long been synonymous with 'smart ring.'" EX-2019, ¶41; EX-2036; EX-2089. Petitioner's expert also characterizes smart rings introduced prior to the Oura Ring Gen 3 and Gen 4 as "limited and weak competition," describing many of them as

“unknown start-ups reliant on crowdsourcing for funding.” EX-1080, ¶¶178-179. Collectively, this suggests that Oura did, in fact, help create the market segment of smart rings.

Petitioner’s claim that the Oura Ring Gen 3 “was not novel enough to garner any praise,” is belied by the evidence. EX-2019, ¶¶41, 48; EX-2058; EX-2089; EX-2090; EX-2048; EX-2091; EX-2098; EX-2099; EX-2100). The industry praise continued for the Oura Ring Gen 4 as well. EX-2019, ¶¶42, 49; EX-2092; EX-2060; EX-2058; EX-2102.

D. Evidence of copying of Oura Ring by the Industry.

Petitioner argues that PO has failed to provide evidence of actual copying. Reply, 25-26. But “[e]vidence of access and substantial similarity *is* evidence of copying.” *Medtronic, Inc. v. Teleflex Innovations S.a.r.l.*, 70 F.4th 1331, 1340 (Fed. Cir. 2023). Multiple competitors admit to purchasing Oura Rings, tearing them down, and creating competing rings with remarkable similarities to Oura Ring. POR, 105-112; Ex-2024, 683:19-21; 685:16-24; 95:1-21; 698:3-24; 696:12-698:2; 699:2-5; Ex-2031; Ex-2032; Ex-2113; Ex-2114.

E. The ’178 patent fulfilled a long-felt need.

Petitioner argues that “[c]omfortable, compact rings with curved batteries and PCBs were well known in the art.” Reply, 26. Petitioner offers three cites for this

proposition: Ex-1002, ¶44; Ex-1079, ¶92, and Ex-1080 ¶¶267-71. But Petitioner's own cites show that the prior art rings, as shown below, were not compact, nor included curved batteries, nor were comfortable but instead mounted all the circuit board and battery all on top of the ring:

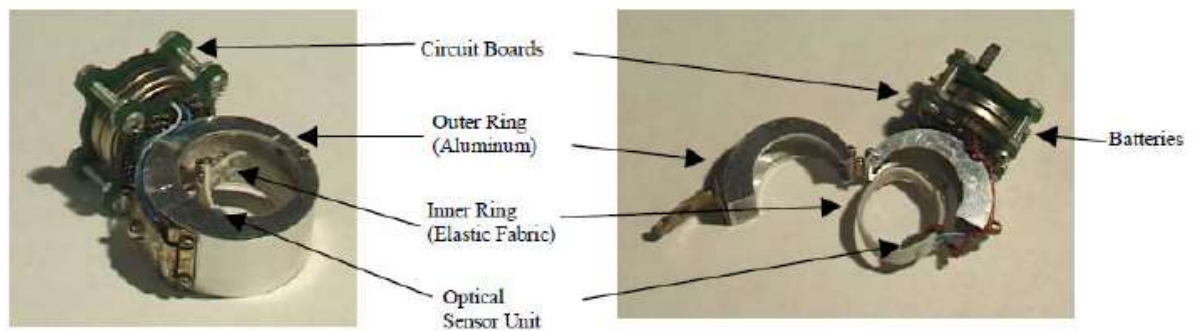


Figure 1 : Isolating ring sensor designed for motion artifact minimization

Ex-1002, ¶84 (citing Ex-1035). Petitioner's citations prove that the '178 patent satisfied the long-felt need more so than refute this finding.

Finally, Petitioner puts up a strawman arguing Asada and Dr. Mercier only failed to “successfully *commercialize*” their rings. Reply, 26-27. But both Asada and Mercier admit their designs, like others in the field, failed to solve the problem of making the ring with components and battery housed within the ring as subsequently disclosed by the '178 patent—their failure had nothing to do with commercialization. Ex-1035, 74 (“the size of the first prototype...was too large to be of use in real life.”); Ex-1081, 35:16-37:10 (“I very quickly concluded that the

most logical way to build such a design was to follow the prior art...and place the battery at the top of the device.”)

VI. CONCLUSION

For the reasons stated herein, the Board should find in favor of the Patent Owner on all claims.

Dated: August 26, 2025

Respectfully submitted,

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CERTIFICATE OF WORD COUNT UNDER 37 C.F.R. § 42.24(D)

I hereby certify that the foregoing Patent Owner's Sur-Reply contains 5,588 words as measured by the word-processing software used to prepare the document, in compliance with 37 C.F.R. § 42.24(d).

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CERTIFICATE OF SERVICE

I hereby certify that, on August 26, 2025, I caused a true and correct copy of Patent Owner's Sur-Reply to be served in its entirety, via filing through the Patent Trial and Appeal Case Tracking System (P-TACTS), as well as by delivering copies via email to the following counsel for Petitioner:

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