

**U.S. INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.**

**Before the Honorable Doris Johnson Hines
Administrative Law Judge**

In The Matter Of

**CERTAIN SMART WEARABLE DEVICES,
SYSTEMS, AND COMPONENTS THEREOF**

Investigation No. 337-TA-1398

COMPLAINANTS' INITIAL POST-HEARING BRIEF

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TABLE OF ABBREVIATIONS

Abbreviation	Term
Oura	Complainants Oura Ring, Inc. and Oura Health Oy
Ultrahuman	Respondents Ultrahuman Healthcare Pvt. Ltd., Ultrahuman Healthcare Ltd., and Ultrahuman Healthcare SP, LLC
RingConn	Respondents RingConn LLC and Shenzhen Ninenovo Technology Ltd.
Circular	Respondent Circular S.A.S. (terminated)
Private Parties	Collectively, Oura, Ultrahuman, and RingConn
Staff	Commission Investigative Staff
'178 patent or Asserted Patent	U.S. Patent No. 11,868,178
'179 patent	U.S. Patent No. 11,868,179
'429 patent	U.S. Patent No. 10,842,429
Respondents	Ultrahuman and RingConn
NOII	Notice of Institution of Investigation, 89 Fed. Reg. 27452–53 (Apr. 17, 2024)
Asserted Claims	Claims 1, 2, and 12-14 of U.S. Patent No. 11,868,178
SAC	Second Amended Complaint
DI	Domestic Industry
DI Product or Oura Domestic Industry Product	Oura Ring and corresponding Oura application, including Oura Ring Gen. 3 and Oura Ring Gen. 4
Ultrahuman Accused Product	Ultrahuman Ring AIR and its corresponding Ultrahuman application
RingConn Accused Product	RingConn Smart Ring and its corresponding RingConn application, including RingConn Gen. 1 and Gen. 2
Respondents Accused Products	Ultrahuman Accused Product and RingConn Accused Product collectively
Products-at-Issue	Respondents Accused Products and Oura Domestic Industry Products
MAB	Oura's Medical Advisory Board
PCB	Printed Circuit Board
Tr.	Evidentiary Hearing Transcript

TABLE OF ASSERTED CLAIMS

	'178 Patent
[1 Pre]	A finger-worn wearable ring device, comprising:
[1 a]	an external housing component defining an outer circumferential surface of the finger-worn wearable ring device;
[1 b-i]	an internal housing component defining an inner circumferential surface of the finger-worn wearable ring device,
[1 b-ii]	the internal housing component coupled with the external housing component
[1 b-iii]	wherein at least a portion of the inner circumferential surface of the internal housing component is configured to contact a tissue of a user when the finger-worn wearable ring device is being worn by the user
[1 c-i]	a battery positioned within a cavity formed between the internal housing component and the external housing component,
[1 c-ii]	wherein the battery comprises a shape and size configured to fit within the cavity between the outer circumferential surface of the external housing component and the inner circumferential surface of the internal housing component, and
[1 c-iii]	wherein the battery extends through at least a first portion of the cavity of the finger-worn wearable ring device;
[1 d]	a printed circuit board disposed between the internal housing component and the external housing component, wherein the printed circuit board extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion; and
[1 e]	one or more sensors electrically coupled with the printed circuit board and the battery and configured to acquire data from the user through the internal housing component.
2	The finger-worn wearable ring device of claim 1, wherein the first portion of the cavity of the finger-worn wearable ring device is non-overlapping with the second portion of the cavity of the finger-worn wearable ring device.
12	The finger-worn wearable ring device of claim 1, wherein the battery comprises a curved battery, wherein an arc of the curved battery approximates a corresponding arc of the external housing component
13	The finger-worn wearable ring device of claim 1, wherein the one or more sensors comprise a first light-emitting component configured to emit light associated with a first wavelength, and a second light-emitting component configured to emit light associated with a second wavelength different from the first wavelength.
14	The finger-worn wearable ring device of claim 13, wherein the first wavelength is associated with visible light, and wherein the second wavelength is associated with infrared light.

I. INTRODUCTION

The evidentiary hearing confirmed that Respondents’ Accused Products infringe the ’178 patent, the Asserted Claims are valid, Oura has a protectable domestic industry, and there are no public interest issues which would be affected by an exclusion order. The evidence showed that Respondents copied the precise configuration and layout of both the Oura Ring and the “potting material” embodiments of the ’178 patent. This was confirmed by Oura’s technical expert, Dr. Majid Sarrafzadeh, who performed detailed product teardowns that confirmed the structure and showed how the Accused Products infringe the Asserted Claims of the ’178 patent.

Respondents primary defense was to advance non-infringement theories based on a notion already rejected by this Court during claim construction—that claim 1 does not cover the use of potting material as the internal housing component. All such theories contradict the express disclosure in the ’178 patent and are without merit. Respondents also did not present any expert to rebut Oura’s economic expert, Carla Mulhern’s testimony related to the economic prong of domestic industry or public interest.

In sum, Oura proved that there is a Section 337 violation. Oura requests that the ALJ recommend that the Commission issue the requested remedies, including a limited exclusion order, cease-and-desist order, and bond. Oura also requests that the ALJ find that the public interest will not be harmed by the requested remedies.

II. PROCEDURAL HISTORY

On March 13, 2024, Oura filed a Complaint alleging a violation of Section 337 of the importation into the United States, sale for importation, and sale within the United States after importation of certain smart wearable devices, systems, and components thereof on infringement of certain claims of the ’178, ’179, and ’429 patents by Respondents Accused Products. *See* 89 Fed. Reg. 27452, 27452–53 (Apr. 17, 2024). The Complaint was amended on

March 21 and 22, 2024. *Id.*

On April 12, 2024, the Commission instituted an investigation pursuant to Rule 210.10(b) based on Oura's Complaint naming Ultrahuman, RingConn, and Circular as Respondents. *Id.* The Complaint and NOII were further amended after institution to correct the identification of the parent company of RingConn. *See* 89 Fed. Reg. 48686, 48686–87 (Jun. 7, 2024). On July 9, 2024, the ALJ issued an initial determination terminating Circular based on settlement. Order No. 12. On October 23, 2024, the ALJ issued an Order construing a number of disputed claim terms of the '178 patent. Order No. 17 (JX-0011).

In the interest of narrowing the disputes, Complainants narrowed the asserted claims and patents by withdrawing the '179 and '429 patents from this Investigation. *See e.g.*, Order No. 13; and Order No. 15. For the Evidentiary Hearing, the Investigation was narrowed to five claims of the '178 patent: Claims 1, 2, 12, 13, and 14. *See* Order No. 21.

The Evidentiary Hearing was held on December 11-17, 2024. Order No. 9.

III. THE PRIVATE PARTIES

A. Oura

Complainant Ouraring, Inc. is a Delaware corporation with its principal place of business in San Francisco, CA. Tr. (Chapp) at 147:16-21. Complainant Oura Health Oy, a parent company of Ouraring, Inc., is a Finnish company with its principal place of business in Finland. *Id.* at 86:19-24; 147:22-148:4. Since its founding, Oura has continuously innovated and released four generations of Oura Ring: Oura Ring Gen. 1 in 2015, Gen. 2 in 2018, Gen. 3 in 2021, and Gen. 4 in 2024. *Id.* at 90:18-92:20.



Oura Ring Gen. 1
CX-0834.0002



Oura Ring Gen. 2 (Silver)
CX-1007



Oura Ring Gen. 3
CX-0702.0001



Oura Ring Gen. 4
CX-1146.0003

In addition to investing significantly in research and development, Oura has also made a number of investments in strategic acquisitions. One such acquisition is Proxy Inc. that Oura acquired in 2023 for \$165 million. Tr. (Chapp) at 110:19-111:1. As part of its acquisition of Proxy, Oura acquired Motiv, Inc. that had developed and patented the technology at-issue in this investigation. *Id.* at 111:2-11.

B. RingConn

Shenzhen Ninenovo Technology Ltd. is a corporation incorporated under the laws of the People's Republic of China with its principal place of business in Shenzhen, China. Tr. (Wu) at

785:13-18. RingConn, LLC is a Delaware limited liability company having a principal place of business in Wilmington, Delaware. *Id.* at 785:19-22. RingConn, LLC is a wholly-owned subsidiary of Shenzhen Ninenovo Technology Ltd. *Id.* at 785:23-786:1.

C. Ultrahuman

Ultrahuman Healthcare Pvt. Ltd. is an Indian Non-Government Company incorporated in India with its principal places of business in Bangalore, India and Abu Dhabi, UAE. Tr. (Kumar) at 732:3-5; 732:13-16. Ultrahuman Healthcare SP LLC is a company incorporated under the laws of the United Arab Emirates, having the principal place of business in Abhu Dhabi, UAE. *Id.* at 733:5-12. Ultrahuman Healthcare Ltd. is a company incorporated under the laws of the United Kingdom, having a principal place of business in London, U.K. *Id.* at 733:13-18. Ultrahuman Healthcare SP LLC and Ultrahuman Healthcare Ltd. are wholly-owned subsidiaries of Ultrahuman Healthcare Pvt. Ltd. *Id.* at 733:19-734:2.

IV. OVERVIEW OF TECHNOLOGY

A. State of the art of smart rings in 2013

The technology at issue is smart wearable rings that monitor user's health and fitness. While consumers today have many options for wearable technology, including wrist watches, chest strap monitors, smart glasses, and smart rings, in 2013 (the priority date of the '178 patent), the wearable landscape was different particularly with respect to the ring form factor.

As explained by Oura's technical expert, Dr. Tajana Rosing—an expert in power management systems and wearable devices—some of the early work related to smart rings was done by a Massachusetts Institute of Technology (MIT) group led by Professor Asada who had a conceptual idea to develop a smart ring. Tr. (Rosing) at 1196:8-14.

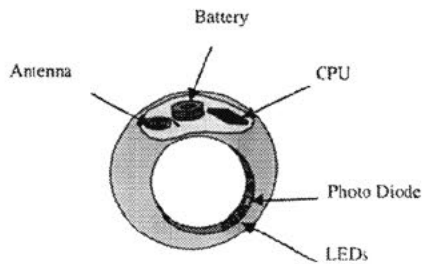
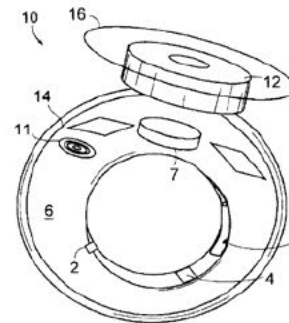


Fig. 1. Conceptual diagram of the ring sensor.

CX-1121.0002



CX-1134

But the actual rings that Asada built included a sandwich-like stacked PCB and coin cells all positioned on top of the ring:



Figure 2: Earlier design of PPG ring sensors

CX-1123.0003

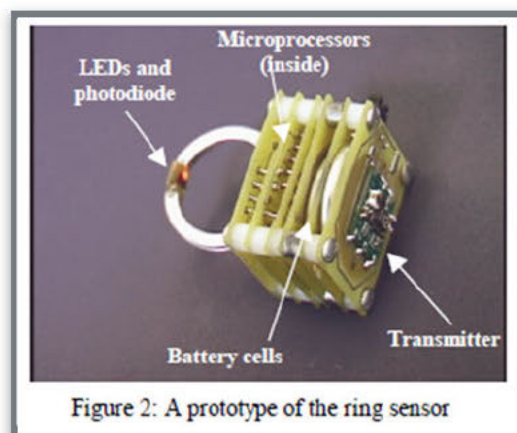
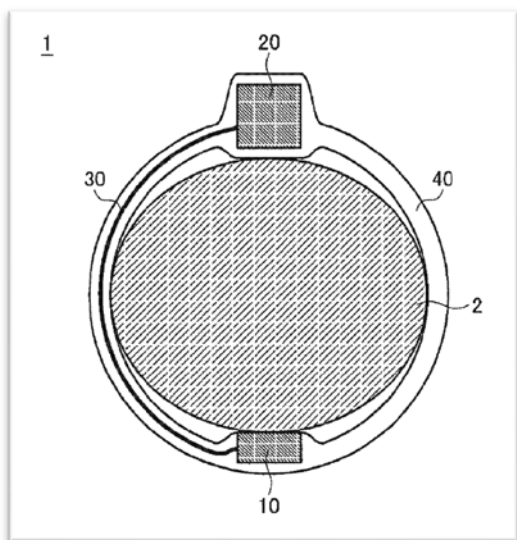


Figure 2: A prototype of the ring sensor

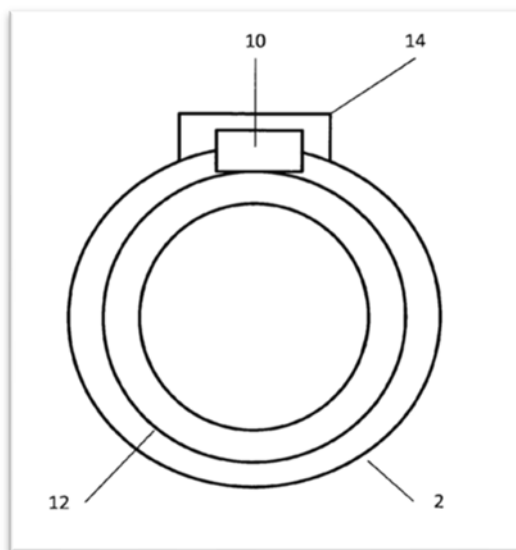
CX-1122.0002

The positioning of the batteries and components on top of the ring in Asada was purposeful. Tr. (Rosing) at 1196:15-23 (“And there was a really good reason for this. This was done specifically because [Asada] needed long enough battery lifetime, which they could get only with these larger size coin cell shaped batteries. And also they needed to be able to fit a bunch of components.”); *id.* at 1197:4-23.

This basic design continued through mid-2010s. For example, U.S. Pub. No. 2012/0016245 (“Niwa”) (CX-1133) and U.S. Patent No. 10,303,867 (“Schröder”) (RX-0018)—two references that Respondents allege invalidates the ‘178 patent—both included batteries and components protruding on top of the ring similar to Asada:



CX-1133 (Niwa) at Fig. 22



RX-0018 (Schröder) at Fig. 3

B. Oura and Motiv brought first smart wearable rings to market

In early 2010s, nearly at the same time but oceans apart, two startups—Oura in Finland and Motiv in California—started their parallel journeys to develop a smart wearable in a ring form factor.

Oura founders, observing an increase in chronic diseases and recognizing that Finland sees

only 1,900 hours of daylight a year and thus a majority of the time is spent in darkness, set out to shift the focus in health from reactive care to proactive care with particular emphasis on monitoring sleep. Tr. (Chapp) at 87:11-88:1. Indeed, it was Oura founder's early focus on sleep that drove Oura to research and develop a wearable device in a ring form factor that, unlike smart watches or chest straps, could be worn by users continuously and unobtrusively, including while the user is asleep. *Id.* at 88:2-8. In 2015, Oura released its first generation ring that was labeled a "Superbowl ring" because it included a large protrusion at the top of the ring where all the components were located similar to prior designs:

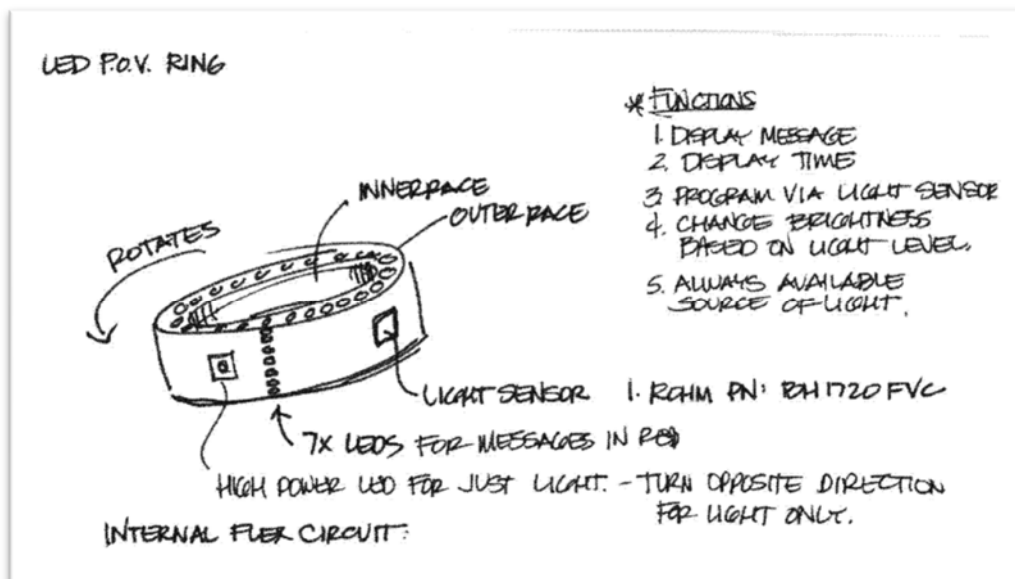


Oura Ring Gen. 1

CX-0834.0002

Meanwhile, in California, Curt von Badinski—the original founder of Motiv, Inc.¹—had an idea in 2012 to develop a keepsake smart ring that when flicked would rotate, generate energy through the rotation to power LEDs, and show messages on the surface of the ring “like I love you or your wedding date.” Tr. (von Badinski) at 175:13-16; 179:15-180:1; CX-0989C.0006.

¹ Motiv, Inc. was originally named Mechio Inc. Tr. (von Badinski) at 174:15-19. The name was subsequently changed to Motiv, Inc. *Id.*



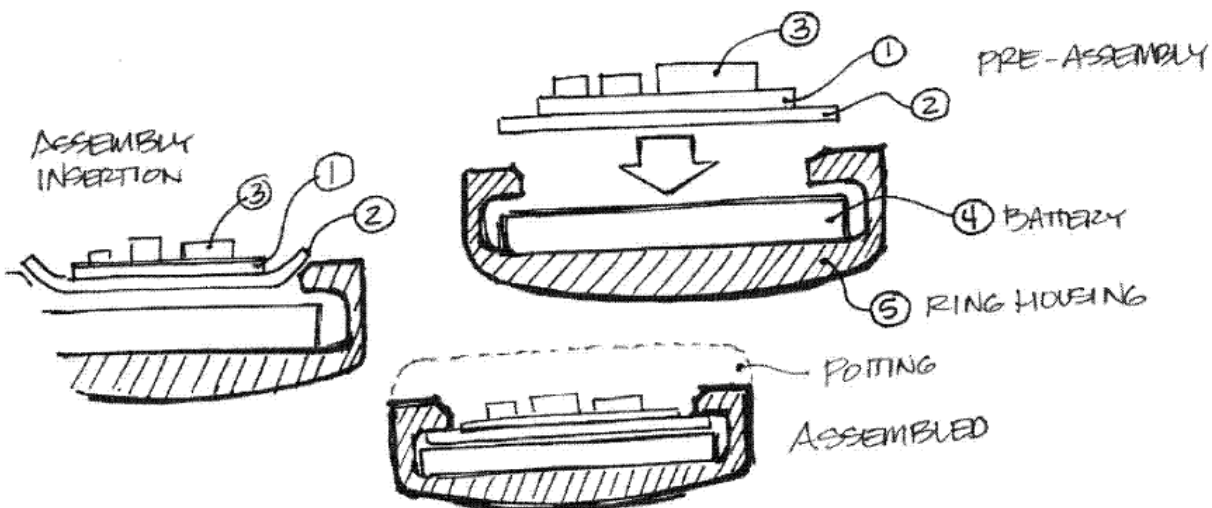
CX-0989C.0006.

Spring boarding from his original idea, von Badinski refined his concept with additional functionalities that could be derived from a smart ring, including “controlling phones, being able to unlock your phone, take a photo with your phone remotely” using a ring. Tr. (von Badinski) at 180:2-15; CX-0988C.0014. But keeping true to its keepsake ring concept, von Badinski also sought to capture biometric data (e.g., pulse rate) from the ring. CX-0988C.0014; Tr. (von Badinski) at 180:16-19 (“Pulse was a big one too. You know, being a keepsake ring, the idea was that you could actually send your pulse rate to your significant other and show your heart rate to them.”). With this concept in hand, von Badinski sold his truck, cashed out his 401(k), and took out loans to start a company that would become Motiv, Inc. *id.* at 176:2-6. He brought on three other founders: Peter Twiss, Mike Strasser, and Eric Strasser. *Id.* at 175:23-176:1.

To develop the mechanical structure of the smart ring housing, von Badinski explored a number of options, including a single-part and two-part designs. As for single-part design, von Badinski explained that a solid single shell was used to make both the inner and outer surfaces of a ring. CX-0988C.0007-8; Tr. (von Badinski) at 181:4-16 (“this was essentially a solid shell, a

single part where the inner and outer housing are tied together with a web kind of at the back side there the idea was dropping the flex circuit into that cavity that's made by that inner and outer shape just pour your epoxy into it and it becomes very, very simple to assemble.”). In contrast to the single-part design, the two-part design required building the ring using two separate structures: one for the outer housing and a separate one for inner housing that von Badinski classified as a more complex path. Tr. (von Badinski) at 184:1-13 (“We looked at a solid inner housing and then putting the circuit board and battery on the outside and then overmolding that with epoxy. We also looked at a solid outer housing and then putting the circuit board and battery on the inside and then the inner housing being formed by overmolding[.]”).

To this end and with reference to the below inventor notes, von Badinski explained that he designed a ring housing that includes “an outer housing and inner housing that’s an over molded inner housing” with the components placed within the space between the external and internal housing (*id.* at 184:17-185:1):



CX-0989C.0042

Based on the two-part structural engineering design, Motiv was able to develop a smart ring that would seamlessly house all the components such as battery and PCB all within the ring

unlike any other previous rings, including Oura Ring Gen. 1. Motiv subsequently launched the Motiv Ring in 2017 and sold approximately 80,000 rings. Tr. (von Badinski) at 197:16-198:2.



Motiv Ring
RX-0035C.

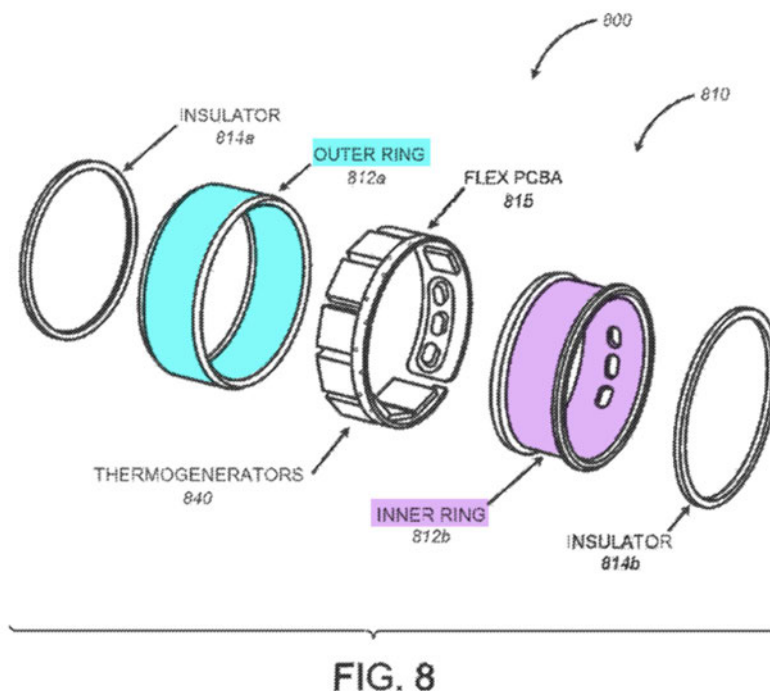
The Motiv Ring received a number of accolades, including the Best of Show award at Consumer Electronics Show (CES) and Red Dot Award. Tr. (von Badinski) at 240:13-19. But despite the positive reception of the ring, Motiv faced internal turmoil and lack of runway from additional venture capital to continue building a hardware infrastructure. *Id.* at 198:3-24. Because of the value that Motiv’s technology provided, Oura acquired Motiv (through Proxy) for \$165 million. Tr. (Chapp) at 110:19-111:11.

C. The ‘178 Patent

The ‘178 patent, titled “Wearable Computing Device,” issued on January 9, 2024 and has an earliest effective priority date of November 29, 2013. *See* JX-0001 (Cover). The ‘178 patent generally discloses wearable computing devices, such as smart rings, which monitor a user’s activity and biosignals to “improve lifestyles, ease access to technology and help monitor activity within the wearer’s body.” JX-0001 at 1:39–46; Tr. (Sarrafzadeh) at 246:21-247:1. The ‘178 patent lists three inventors: Curt C. von Badinski, Michael J. Strasser, and Peter Twiss. JX-0001 (Cover). These inventors were the founders of Motiv, Inc.. All interest in Motiv, Inc. was subsequently

obtained by Oura through a series of acquisitions. Tr. at (Chapp) 110:25-111:11. All rights to the ‘178 patent are assigned to Ouraring, Inc. JX-0003.

Claims 1, 2, and 12-14 are asserted against both Respondents (the “Asserted Claims”). Significant to the Asserted Claims, the ‘178 patent discloses an **outer housing component coupled** to an **inner housing component** to form a space for accommodating the battery, circuit board, sensors, and other components as shown below:



Id. at Fig. 8 (highlighting added).

Figure 13 shows a cross section of one embodiment of the ring having a housing 1310 that includes an **external housing component 1312** and an **internal potting or encapsulant 1314**. *Id.* at 18:63–67. The **battery 1330** and **printed circuit board 1340** are positioned within space 1320. *Id.* at 19:6–10.

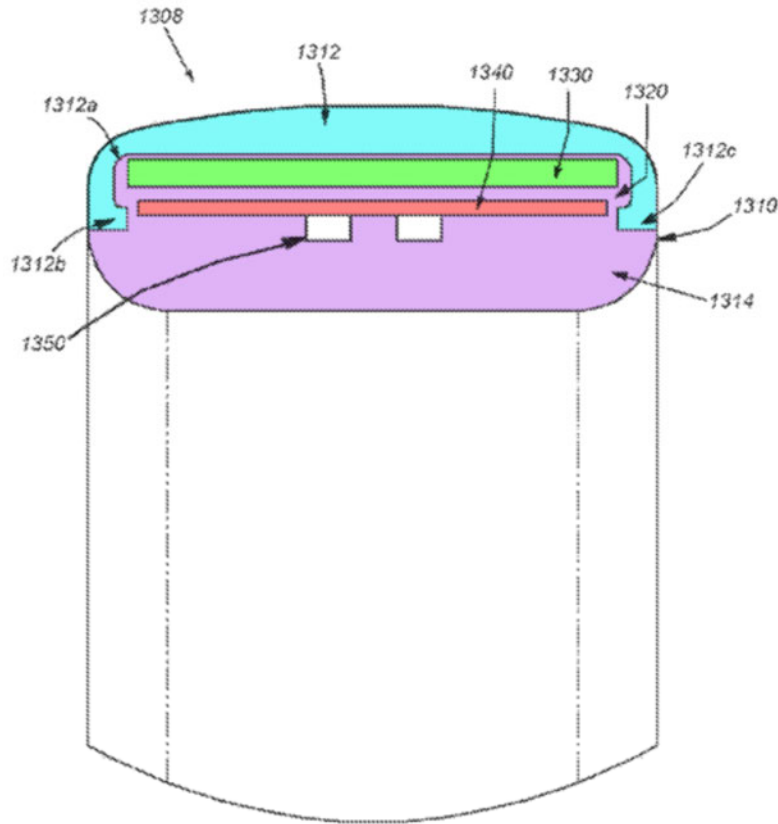


FIG. 13

Id. at Fig. 13.

V. PRODUCTS-AT-ISSUE

A. Domestic Industry Products

Oura Domestic Industry Product is Oura Ring, including both Gen. 3 and Gen. 4, as well as the corresponding iOS and Android Oura Application.

Oura Gen. 3 is available to consumers in two styles: Horizon and Heritage. Tr. (Sarrafzadeh) at 254:13-24. Oura Ring Horizon is an uninterrupted design that has near round exterior for the full length, whereas Heritage includes a minor plateau design on the exterior for a portion of the ring. *Id.* at 254:25-255:9. Outside of the external structure for part of the ring, both styles have the same technical and hardware capabilities. *Id.*

Oura Ring Gen. 3 (Horizon)	Oura Ring Gen. 3 (Heritage)
	
CX-0702	CX-0701

In addition to Oura Ring Gen. 3, the newly released iteration of Oura Ring (i.e., Oura Ring Gen. 4) that launched in October 2024 is also independently a Domestic Industry Product. Tr. (Sarrafzadeh) at 255:9-14.



The structure for both Oura Ring Gen. 3 and Gen. 4 is generally the same. Tr. (Chapp) at 112:15-113:1. While Oura Ring Gen. 3 includes a polymer inner ring structure (*Id.* at 117:4-22), Oura Ring Gen. 4 has a metal interior. *Id.* at 114:3-12. Thus, both Oura Rings (Gen. 3 and Gen. 4) are structurally configured to have an outer ring structure (metal), an inner ring structure (either

polymer in case of Gen. 3 or metal in the case of Gen. 4), and the electronic components (i.e., battery and printed circuit board) located between the two ring structures.

Oura Ring Gen. 3 and Gen. 4 are also paired with an Oura Application (“Oura App”) that is executed on user’s phone.² Based on data that is acquired from plurality of sensors located within Oura Ring, the Oura App provides information associated with user’s health (e.g., heart rate, blood oxygen, steps, movements, etc.). Tr. (Sarrafzadeh) at 254:9-24 (Oura App goes “hand-in-hand” with the Oura Ring); Tr. (Chapp) at 93:22-94:4 (“none of the rings actually have a display on them. And so in order for us to communicate and share the insights and all of the [] recommendations, we do that all through the app. And so it’s really needed in order to be able to share back everything with our members[]”; *id.* at 94:5-95:2.

B. Respondents Accused Products

Respondents Accused Products include the following smart rings with their corresponding applications:

Respondent	Accused Products
RingConn	RingConn Smart Ring (Gen. 1) RingConn Smart Ring (Gen. 2)
Ultrahuman	Ultrahuman Ring AIR

1. RingConn Accused Product

RingConn Smart Ring (Gen. 1 and Gen. 2) and its corresponding RingConn Application are the RingConn Accused Products. Tr. (Sarrafzadeh) at 255:15-21.

² The same Oura App connects with both Oura Ring Gen. 3 and Gen. 4.



RingConn Smart Ring Gen. 1 was introduced in 2023 and Gen. 2 in 2024. The parties have stipulated that RingConn’s Gen. 1 Smart Ring is representative of RingConn Gen. 2 Smart Ring such that a finding of infringement or non-infringement by one generation shall constitute infringement or non-infringement by all size variations of both Gen. 1 and Gen. 2. *See* JX-0008C. RingConn Smart Ring is paired with RingConn Application (“RingConn App”) that allows users to access the data collected by the ring.

2. Ultrahuman Accused Product

Ultrahuman Accused Product is the “Ultrahuman Ring AIR” and its corresponding Ultrahuman Application that Ultrahuman began selling in the United States in 2023. Tr. (Sarrafzadeh) at 255:15-21; CX-0538.



Ultrahuman Ring is paired with the Ultrahuman Application (“Ultrahuman App”) that allows users to actually access the data collected by the ring. Tr. (Kumar) at 633:5-11 (“All this data is accessed via the Ultrahuman app. As you see . . . all of these actually don’t have a screen. So everything is - - all the data comes through the app and to our servers, and then we interpret the data and then give you reports on your phone.”); *id.* at 723:2-18.

VI. STANDING, PERSONAL JURISDICTION, AND IMPORTATION

A. Statutory Authority

The Commission has statutory authority over this Investigation. *Certain Video Security Equipment and Systems, Related Software, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-1281, 2023 WL 3074844, Comm’n Op. at *6 (Apr. 19, 2023).

B. Standing

Ouraring, Inc. owns all rights, title, and interest in the ‘178 patent and thus has statutory standing to bring this Investigation. JX-0001; JX-0003; *Certain Active Matrix Organic Light-Emitting Diode Display Panels and Modules for Mobile Devices, and Components Thereof*, Inc.

No. 337-TA-1351, 2024 WL 2271608, Comm’n Op. at *7-8 (May 15, 2024). Respondents and Staff have not challenged Oura’s standing in this Investigation.

C. Personal Jurisdiction

The Commission has personal jurisdiction over all Respondents. Oura consented to the personal jurisdiction of the Commission by filing its original Complaint and participating in this Investigation. *See Certain Toner Cartridges, Components Thereof, & Sys. Containing Same*, Inv. No. 337-TA-1174, Initial Determination at 34–35 (July 23, 2020), EDIS Doc. ID 719096, Comm’n Notice (Sept. 8, 2020). Each of the Respondents has consented to the Commission’s personal jurisdiction because they appeared and participated in this Investigation and did not contest the Commission’s personal jurisdiction. *See Certain Windshield Wiper Devices & Components Thereof*, Inv. No. 337-TA-881, Initial Determination, at 5 (May 8, 2014); *Certain Access Control Sys. and Components Thereof*, Inv. No. 337-TA-1016, Final Initial Determination, at 26 (Jul. 26, 2016); *Certain Miniature Hacksaws*, Inv. No. 337-TA-237, Initial Determination at *1 (Oct. 15, 1986).

D. In Rem Jurisdiction and Importation

The Commission has *in rem* jurisdiction over the accused products by virtue of their importation into the United States. *See Sealed Air Corp. v. U.S. Int’l Trade Comm’n*, 645 F.2d 976, 985-86 (C.C.P.A. 1981) (Commission’s jurisdiction over imported articles is sufficient to exclude such articles); *Enercon GmbH v. ITC*, 151 F.3d 1376, 1380 (Fed. Cir. 1998). This importation requirement is satisfied by importation for any purpose, including sale, offer for sale, testing, promotion, or sale after importation. *See Certain Abrasive Prods.*, Inv. No. 337-TA-449, Initial Determination, EDIS Doc. ID 60726, at 61 (Feb. 8, 2002) (finding importation satisfied where a promotion sample of the product was imported because “the importation requirement does not address a purpose for the imported products”). Complainants need only prove importation of

a single accused product to satisfy the importation requirement. *See Certain Purple Protective Gloves*, Inv. No. 337-TA-500, Order No. 17 at 5 (Sept. 23, 2004); *Certain Trolley Wheel Assemblies*, Inv. No. 337-TA-161, Comm’n Op. at 7–8 (Nov. 1984). As discussed below, the evidence shows that Respondents sell for importation to the U.S., import, and/or sell after importation each of the Respondents Accused Products.

1. Importation of RingConn Accused Products

RingConn manufactures the RingConn Accused Products in China and imports the finished products into the United States from its Chinese facility. *See, e.g.* CX-1013; CX-0694. Indeed, RingConn’s corporate witness, Dr. Hao Wu, testified at the hearing that RingConn Accused Products are manufactured in China and imported into the United States. Tr. (Wu) at 764:16-765:7. RingConn LLC is the importer of record for RingConn Accused Products. *Id.* at 765:8-10. The ports of entry for the RingConn Accused Products are Los Angeles and Chicago. *Id.* at 766:3-17; CX-0014C. RingConn contracts with [REDACTED] to provide logistical services for RingConn in the United States concerning the RingConn Accused Products. *Id.* at 768:8-18; CX-0011C. The RingConn App that corresponds to RingConn smart rings is also maintained in servers in Shenzhen, China and the code is uploaded to servers in the United States for Apple and Android applications for users to download. Tr. at 1178:5-13.

2. Importation of Ultrahuman Accused Products

Ultrahuman manufactures the Ultrahuman Accused Product in India and imports the finished product into the United States from its Bangalore facility. *See, e.g.* CX-1008; CX-1009; CX-0693. At the hearing, Ultrahuman’s chief executive officer, Mohit Kumar, admitted that all the components for the Ultrahuman Accused Products were shipped from overseas vendors to the Bangalore facility where the Ultrahuman Accused Products [REDACTED]

[REDACTED] Tr. (Kumar) at 716:15-19; *id.* at 703:5-704:4; *id.* at 719:3-23; *id.*

at 717:6-9; CX-0027C (identifying the component manufacturers for the Accused Product). The Ultrahuman Accused Products are shipped to the U.S. from India via either FedEx or DHL. Tr. (Kumar) at 719:19-720:4. The ports of entry for the Ultrahuman Accused Products are Cincinnati, New York, and Chicago for sales in the United States. *Id.* at 721:3-9.

Ultrahuman App that corresponds with the Ultrahuman Ring AIR is also programmed in Bangalore, India and the software for the Ultrahuman App is maintained in Bangalore, India and Abu Dhabi, UAE. *Id.* at 713:2-22. Ultrahuman uploads and integrates its App software code from India and the UAE to U.S. servers for the Apple App Store and the Google Play Store. *Id.* at 713:23-714:19. Ultrahuman App is essential and critical to the functionality of Ultrahuman Ring AIR because, as Kumar testified, the ring itself does not have any display to communicate the collected information to the user. *Id.* at 723:2-18; *id.* at 633:5-11 (“All this data is accessed via the Ultrahuman app. As you see . . . all of these actually don’t have a screen. So everything is - - all the data comes through the app and to our servers, and then we interpret the data and then give you reports on your phone.”).³

VII. LEVEL OF ORDINARY SKILL IN THE ART

A POSITA for the ‘178 patent would have:

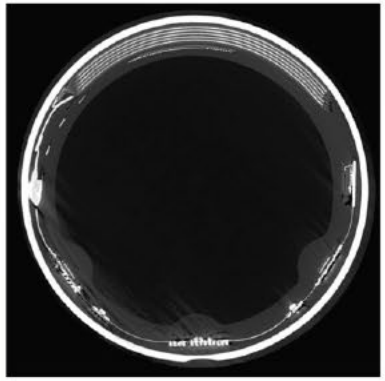
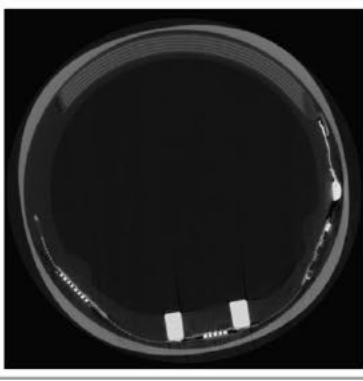
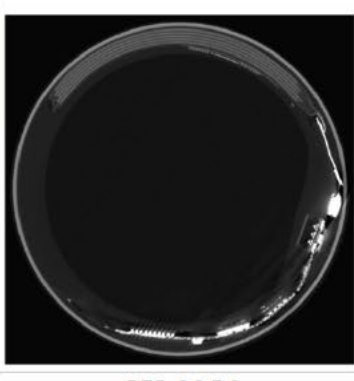
(1) at least three years of experience with research or development of health or medical devices, wearable sensors, or consumer products; and (2) a related degree (e.g., at least a bachelor’s degree) in mechanical, industrial, or electrical engineering, or related field.

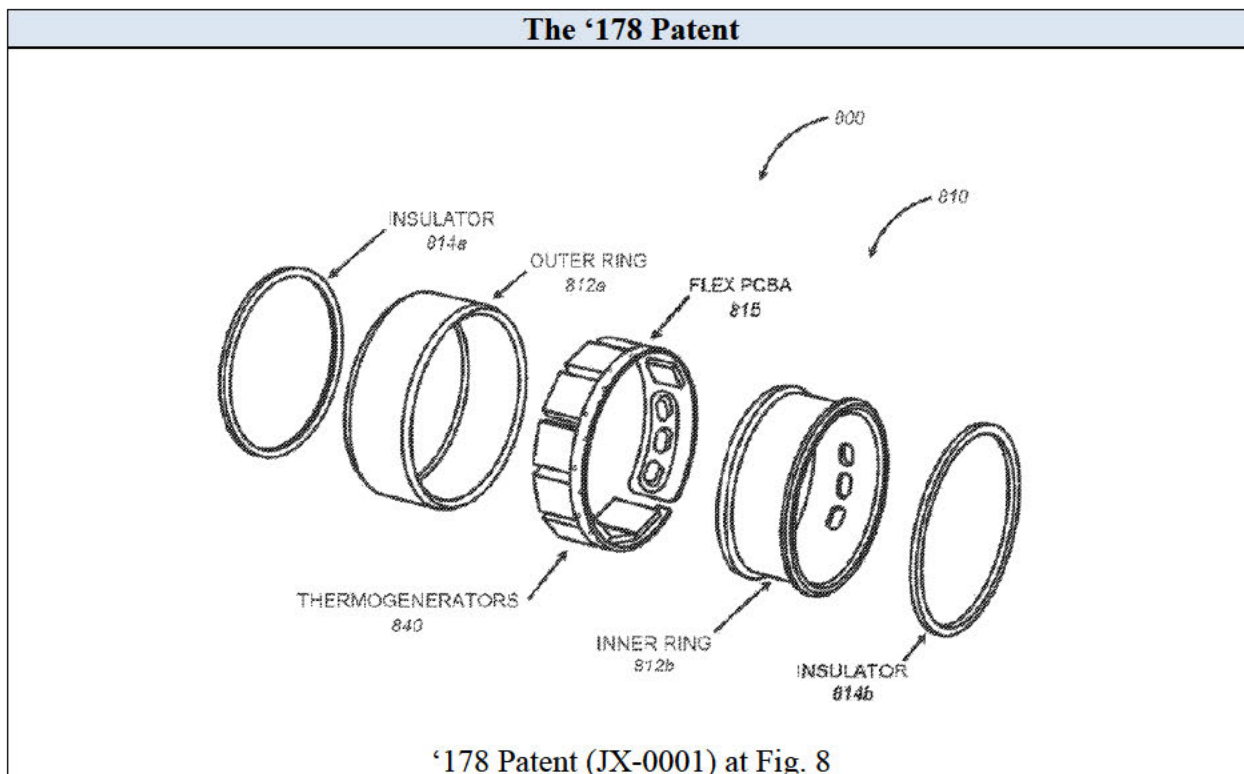
JX-0011 at 4. No party disputes the level of ordinary skill in the art.

³ To an extent that Respondents may argue that the ITC cannot issue any remedy against mobile applications, Respondents would be wrong. *Certain Smart Thermostat Sys., Smart HVACS Sys., Smart HVAC Control Sys, & Components Thereof*, Inv. No. 337-TA-1258, Initial Determination, at 30 (Apr. 4, 2022) (held that a “cloud based service software platform” is an “article” within the meaning of 19 U.S.C. § 1337(a) that may be excluded by the Commission, and is not the same as the “electronically transmitted digital data at issue in ClearCorrect,” because software’s architecture necessarily must reside on a physical server.).

VIII. INFRINGEMENT AND TECHNICAL DOMESTIC INDUSTRY

Each of the Products-at-Issue—Ultrahuman Accused Product, RingConn Accused Product, and Oura Domestic Industry Products—directly infringe or practice claims 1, 2, and 12-14 of the ‘178 patent. Tr. (Sarrafzadeh) at 255:22-256:12. Indeed, as discussed in detail below, each of the products have the same structure as disclosed in the ‘178 patent:

Oura DI Product Gen. 3	RingConn Accused Product	Ultrahuman Accused Product
 CX-0702	 CX-0843	 CX-0538
 CX-0944	 CX-0567	 CX-0537
 CX-0046	 CX-0065	 CX-0056



The similarities in the structure of the accused products are not a mere coincidence because as was revealed at the hearing, each Respondent tore down the Oura Ring and copied the structural design of the Oura Ring soup-to-nuts in making their own products, including copying Oura's marketing materials that illustrated the ring's structural design which includes an external housing made of metallic structure and an internal housing made of solidified epoxy in case of Gen. 3 or a metallic housing in case of Gen. 4, with the curved battery and PCB components positioned in the space between the two structures just as shown in '178 patent. Tr. (Kumar) at 692:19-700:15; Tr. (Wang) at 1160:1-1161:25; Tr. (Wu) at 761:5-16. The Respondents also copied the use of potting material as the internal component which is both practiced by Oura Ring and taught by the '178 patent.

A. Claim Construction

On October 23, 2024, Order No. 17 (JX-0011) construed certain terms of the asserted claims of the '178 patent as follows:

Claim Term	ALJ Construction
an [internal/external] housing component	Plain and ordinary meaning, which is an [internal/external] structure that encloses space and does not necessarily exclude potting material
circumferential	Plain and ordinary meaning, which does not require a closed shape.

See id. at JX-0011.0014, 17 (Oct. 23, 2024). The ALJ also adopted the agreed-upon constructions of the following terms:

Claim Term	Agreed Construction
“A finger-worn wearable ring device” (claim 1)	The preamble is limiting
“[positioned/configured to fit] within a cavity” (claim 1)	Plain and ordinary meaning, which is: “[positioned/configured to fit] within a hollow space”
“[the internal housing component] coupled with [the external housing component]” (claim 1)	Plain and ordinary meaning, which is “[the internal housing component] is connected with [the external housing component]”

Id. at JX-0011.0005.

B. Infringement

Respondents violate Section 337 as direct infringers by importing into the U.S., selling for importation, or selling within the U.S. after importation Respondents Accused Products that infringe the Asserted Claims of the ‘178 patent under 35 U.S.C. § 271(a).

1. Independent Claim 1

a. Limitation 1 [Pre]

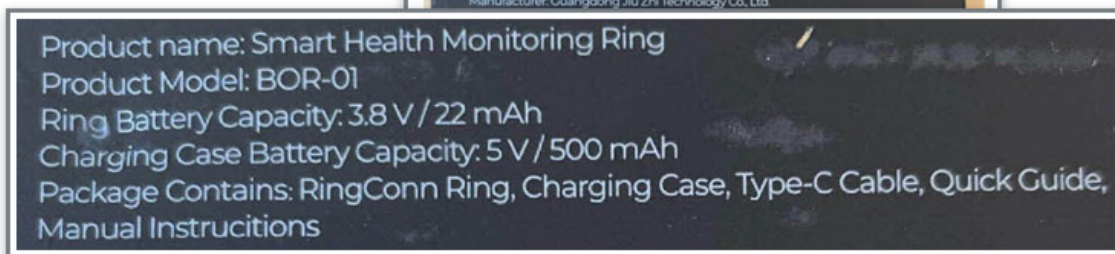
The preamble of the claim 1 requires “[a] finger-worn wearable ring device[.]” JX-0001 at 44:45-48. Both RingConn and Ultrahuman Accused Products practice this limitation.

(i) RingConn Accused Product

The preamble is limiting. *See* JX-0011. RingConn Accused Product is a finger worn wearable ring device configured to be worn by the user on his or her finger. Tr. (Sarrafzadeh) at 260:12-25; CX-0694 (“Product name: Smart Health Monitoring Ring”).



CX-0405



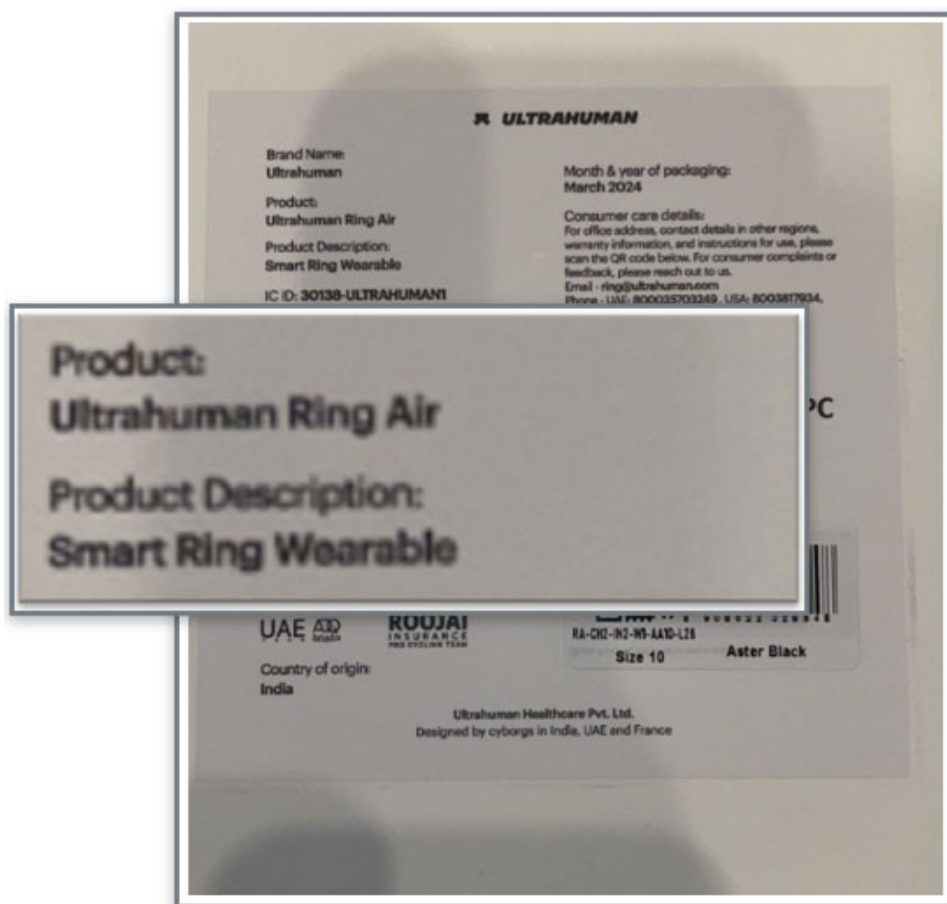
CX-0694.0009

(ii) Ultrahuman Accused Product

Ultrahuman Accused Product is a physical finger-worn wearable ring device that can be worn by the user on his or her finger. Tr. (Sarrafzadeh) at 261:1-8; CX-0693 at CX-0693.0006 (“Product Description: Smart Ring Wearable”).



CX-0375



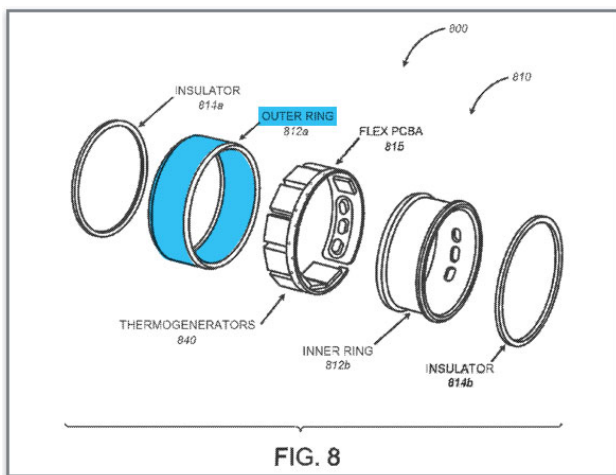
CX-0693.0006

b. Limitation 1[a]

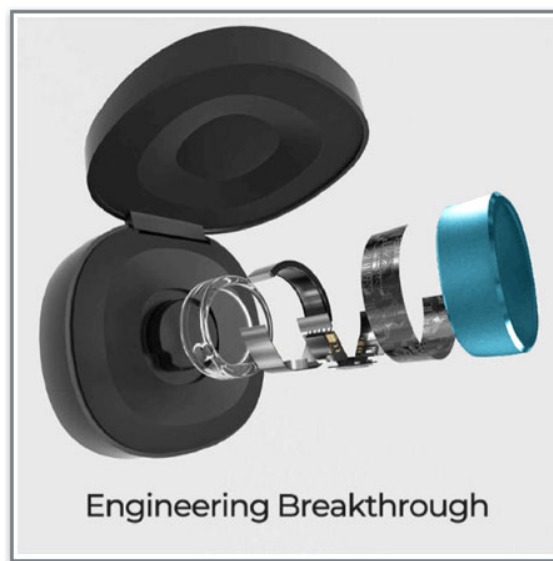
Limitation 1[a] requires “an external housing component defining an outer circumferential surface of the finger-worn wearable ring device.” JX-0001 at 44:46-48. Both RingConn and Ultrahuman Accused Products practice this limitation.

(i) RingConn Accused Product

The RingConn Accused Product includes an **external housing component** defining an **outer circumferential surface** of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 263:7-13; CX-0567; CX-0647C; CDX-0003.30-34. As explained by Dr. Sarrafzadeh, with reference to below figures that includes side-by-side comparison of ‘178 patent and RingConn’s own depiction of the accused product, engineering schematics, and image of the RingConn smart ring, the external metal structure of the ring is the **external housing component** and the **outer circumferential surface** is the curved surface that is visible when the user is wearing the ring. Tr. (Sarrafzadeh) at 263:16-264:11; *id.* at 266:3-15; *id.* at 268:3-20.



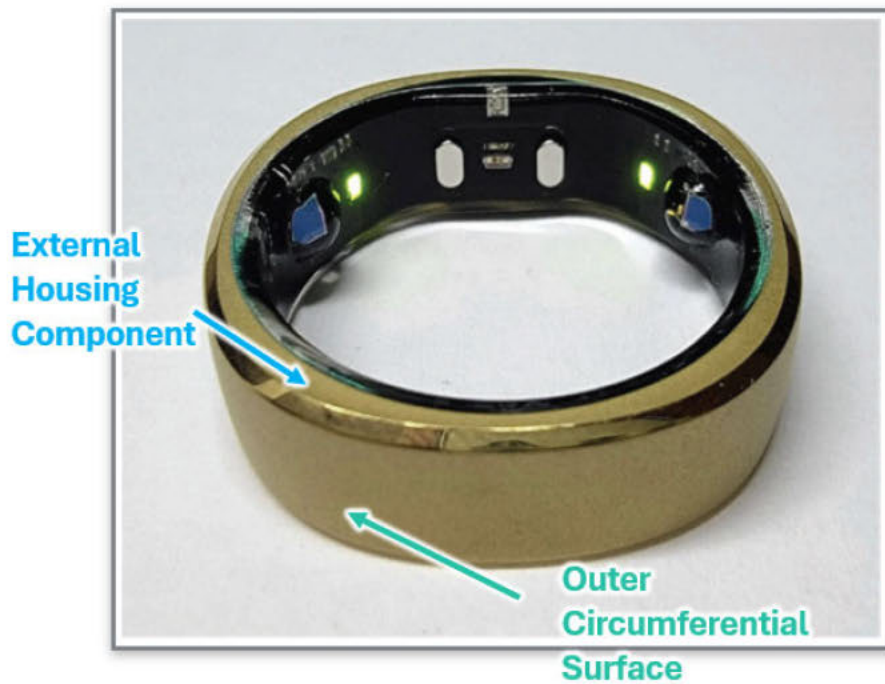
‘178 Patent (JX-0001) at Fig. 8 (Annotated)



CX-0567 (Annotated)



CX-0647C

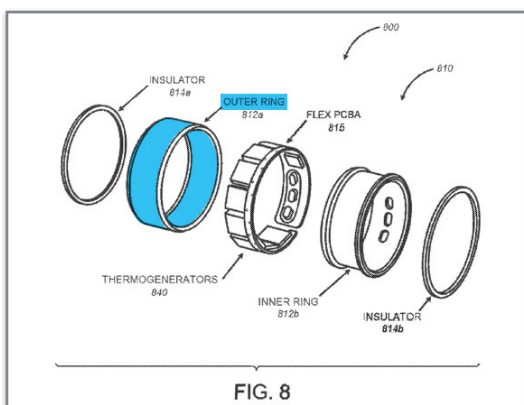


CX-0403

(ii) Ultrahuman Accused Product

Ultrahuman Accused Product includes an **external housing component** defining an **outer circumferential surface** of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 268:22-269:22; CX-0537; CX-0314; CDX-0003.35-37. Indeed, as explained by Dr. Sarrafzadeh, with

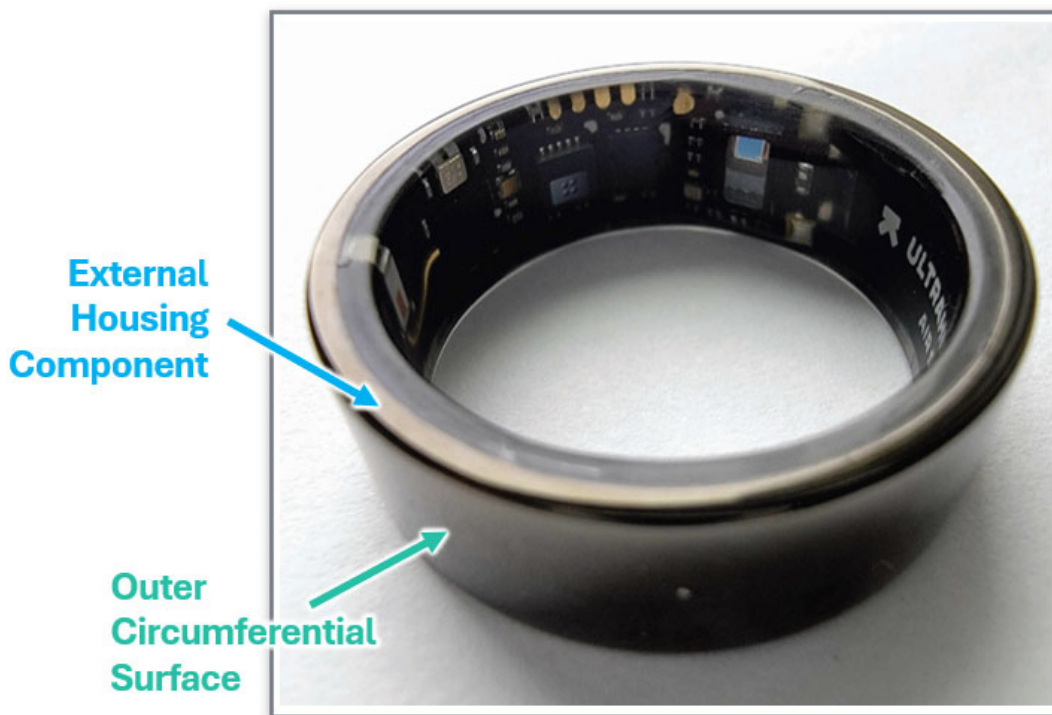
reference to below figures that includes side-by-side comparison of '178 patent and Ultrahuman's own depiction of the Ultrahuman smart ring, the external metal structure of the ring is the **external housing component** and the **outer circumferential surface** is the curved surface that is visible when the user is wearing the ring. Tr. (Sarrafzadeh) at 269:1-22



'178 Patent (JX-0001) at Fig. 8
(Annotated)



CX-0537 (Annotated)



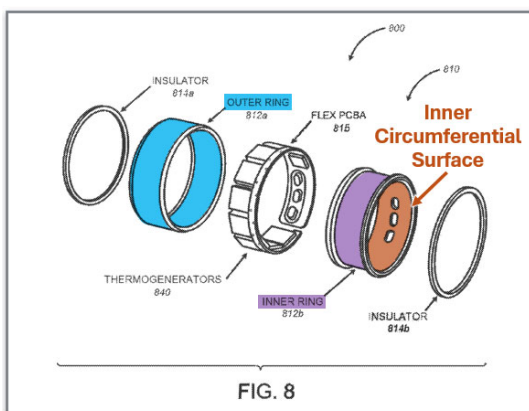
CX-0314

c. Limitation 1[b-i]

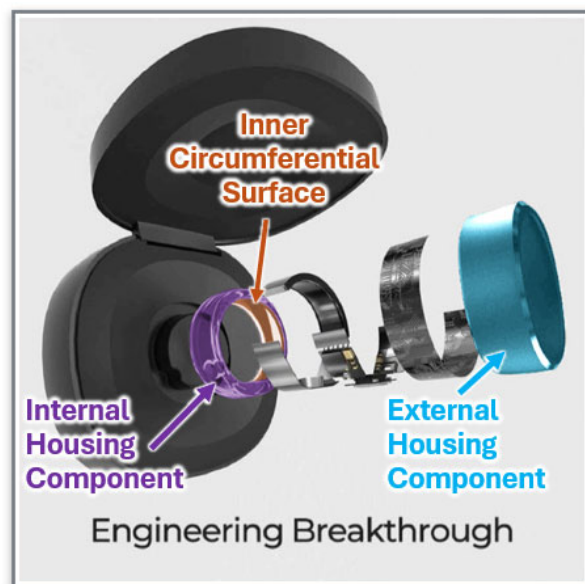
Limitation 1[b-i] requires “an internal housing component defining an inner circumferential surface of the finger-worn wearable ring device[.]” JX-0001 at 44:49-51. Both RingConn and Ultrahuman Accused Products practice this limitation.

(i) RingConn Accused Product

RingConn Accused Product includes an **internal housing component** defining an **inner circumferential surface** of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 271:23-272:18; CX-0405; CX-0567; CX-1040; CDX-0003C.44-46. Again, as shown below with reference to RingConn’s own depiction of its product against Fig. 8 of the ‘178 patent, and product teardown performed by Dr. Sarrafzadeh, RingConn Accused Product includes an **internal housing component** that is a structure formed from cured epoxy (i.e., potting material) which includes a surface that touches the user’s finger when worn. The surface includes a curved surface, and thus an **inner circumferential surface** (Tr. (Sarrafzadeh) at 272:8-23):



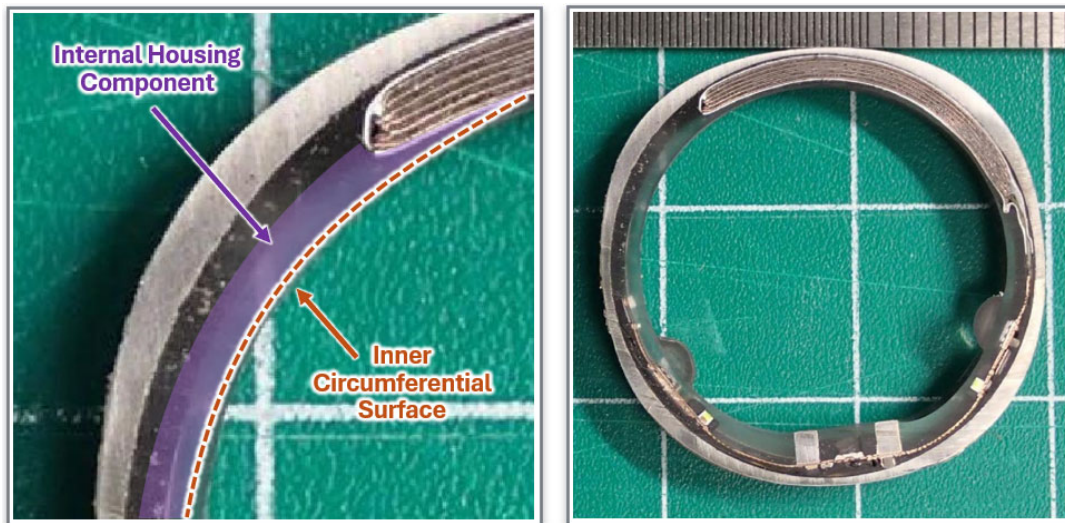
‘178 Patent (JX-0001) at Fig. 8
(Annotated)



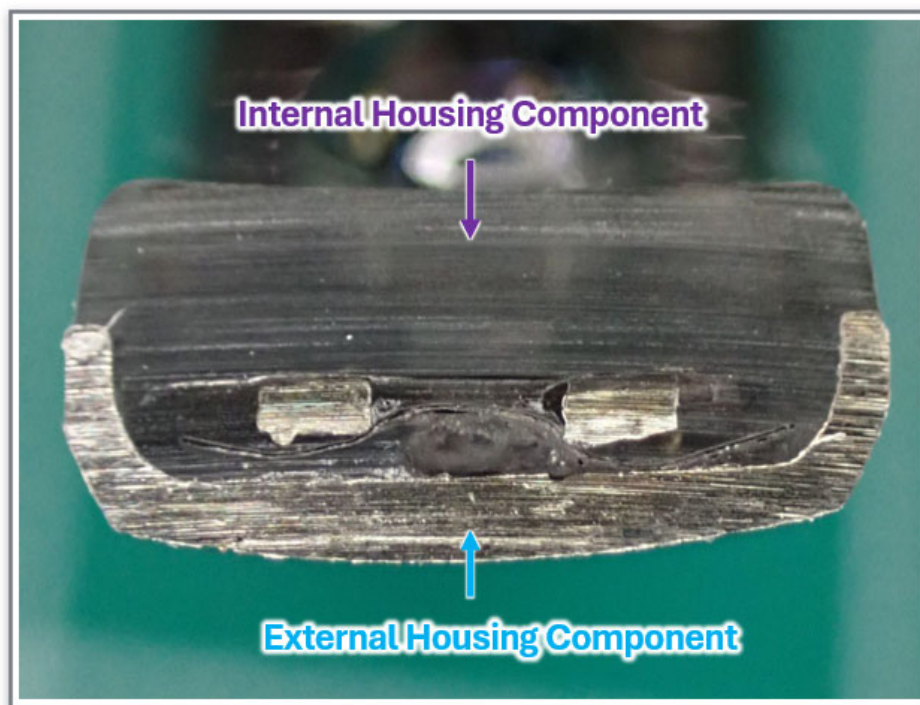
CX-0567 (Annotated)⁴

⁴ At the hearing, while RingConn sought to minimize their own depiction of their product, Dr. Sarrafzadeh explained that his analysis was confirmed with the product imaging, CT scans, product teardowns, and independent analysis. Tr. (Sarrafzadeh) at 264:5-20.

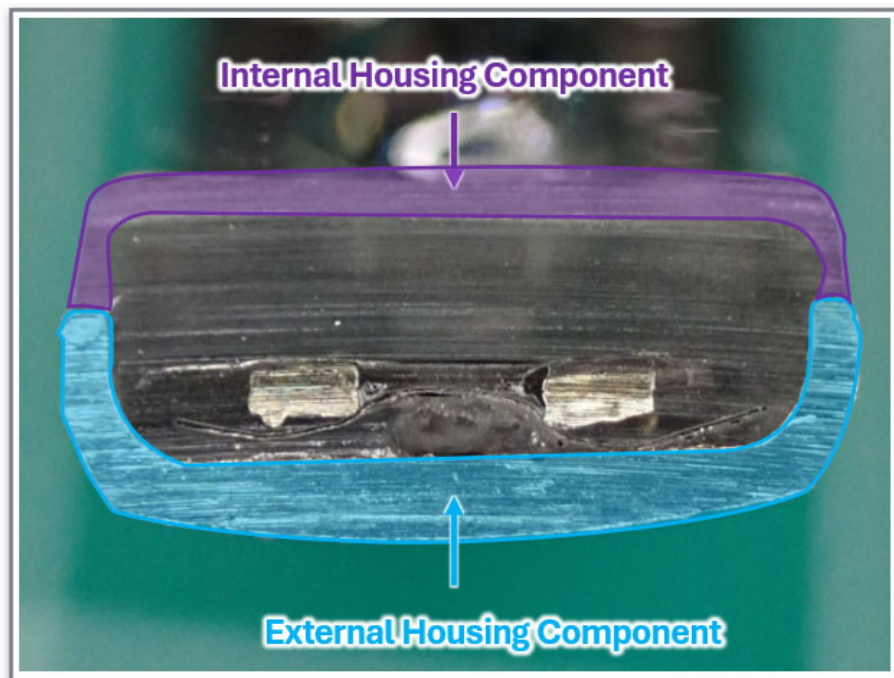
The internal housing component is the layer of potting material that covers the battery and PCB, forms a seal with the external housing component, and defines the inner circumferential surface of the ring. Tr. (Sarrafzadeh) at 272:24-274:22; Tr. (Alarcon) at 1026:15-23 (“I think it’s fair to say that when potting material surrounds the components, it seals them” and “covers” them); *id.* at 1027:5-12; *id.* at 1028:1-2 (“Potting material forms the inner surface of the ring”).



CX-1040; CPX-0196

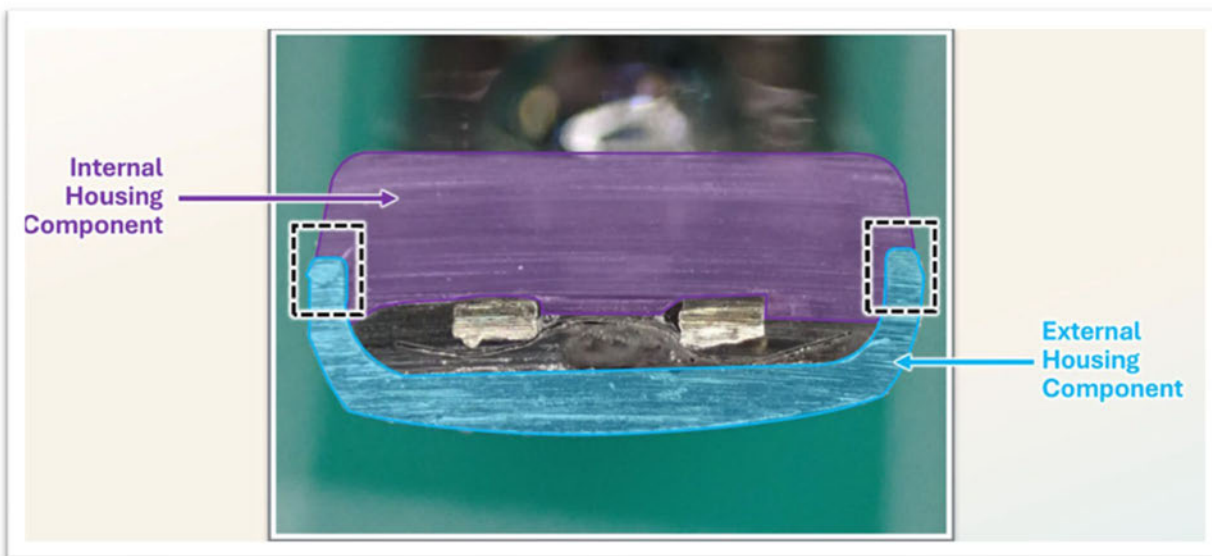


CX-1035; CPX-0197



Id.

And while Respondents accused Dr. Sarrafzadeh of arbitrarily identifying a layer of the potting material as the internal housing component, Dr. Sarrafzadeh explained that his identification was rooted in the specification of the '178 patent addressing the function of the internal housing component to enclose space and define the inner circumferential surface. Tr. (Sarrafzadeh) at 452:12-457:10; *id.* at 455:5-7 (“So a layer is not arbitrary. There are reasons for that. It has a functional reason. So claim 1 talks about the internal housing component. The function of that is to enclose a space and also touch the tissue. So what I’ve been calling crust or the outer layer does exactly that.”). But even if additional layers of potting material were considered the “internal housing component” (as shown below), the Accused Products would still infringe the this limitation as explained by Dr. Sarrafzadeh because the solidified potting material provides a structure that encloses space by covering the components. *Id.* at 459:1-13.

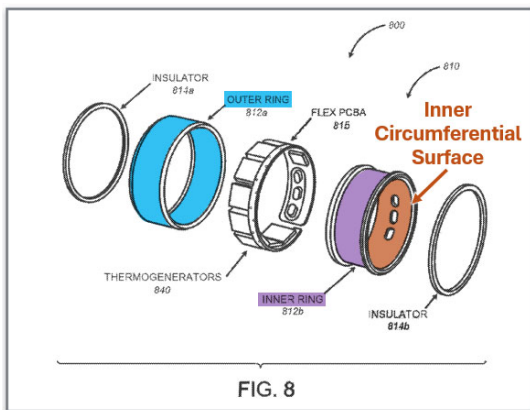


RDX-0009-15 (citing CX-1035).

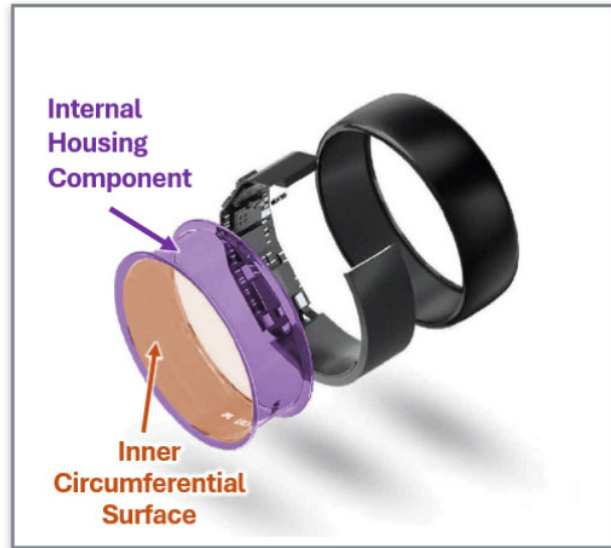
Thus, RingConn Accused Product includes an internal housing component defining an inner circumferential surface of the finger-worn wearable ring device.

(ii) Ultrahuman Accused Product

Ultrahuman Accused Product includes an **internal housing component** defining an **inner circumferential surface** of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 277:17-279:15; CX-0537; CX-0672; CX-1069; CX-1088; CDX-0003.47-50. As shown below with reference to Ultrahuman's own depiction of its product compared with Fig. 8 of the '178 patent, and product teardown performed by Dr. Sarrafzadeh, Ultrahuman Accused Product includes an **internal housing component** that is a layer of cured epoxy (i.e., potting material) which includes a curved surface that touches the user's finger when worn, thus includes an **inner circumferential surface**:

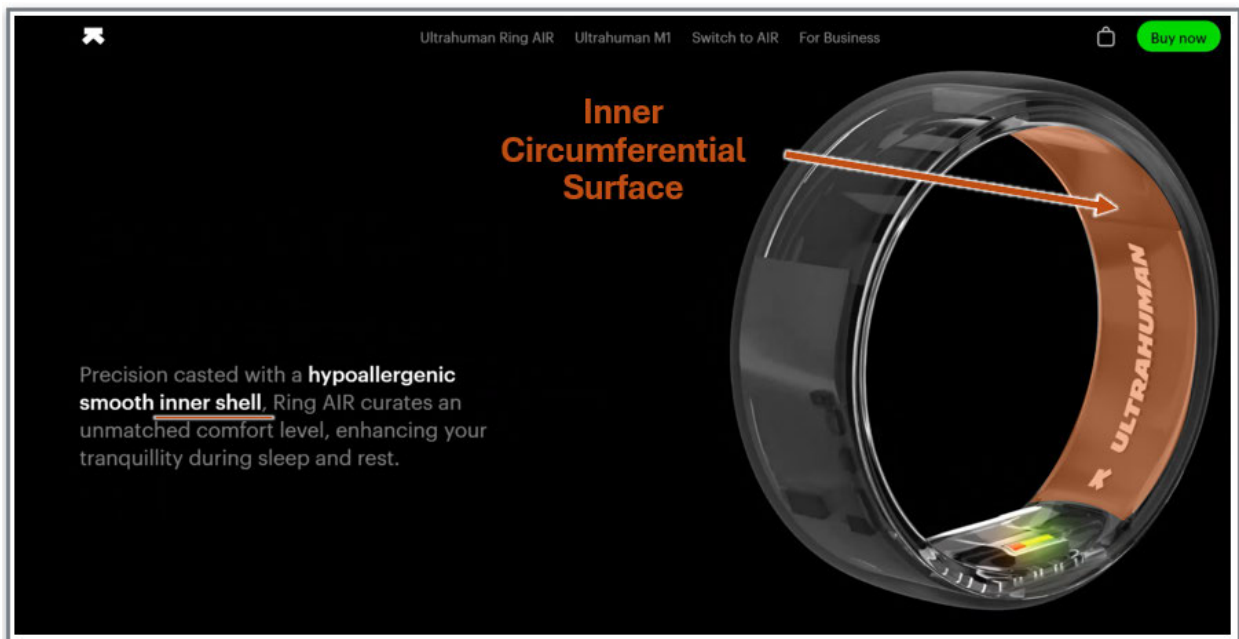


'178 Patent (JX-0001) at Fig. 8
(Annotated)



CX-0537 (Annotated)

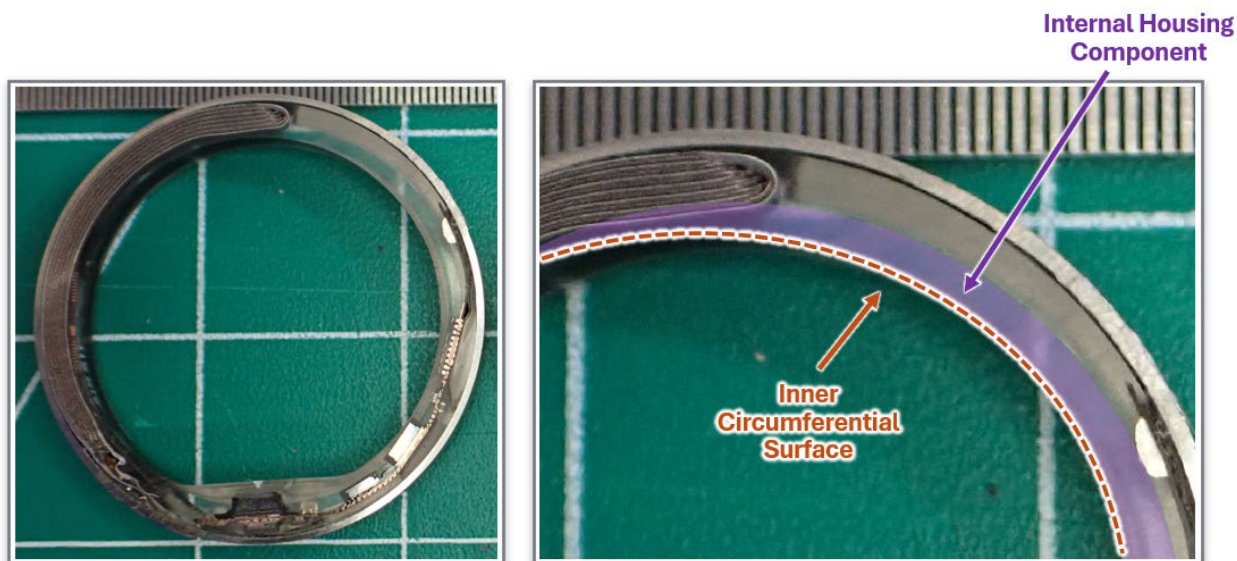
Consistent with Dr. Sarrafzadeh's findings, Ultrahuman refers to the layer of potting material that Dr. Sarrafzadeh identifies as the "internal housing component," as an "inner shell" (Tr. (Sarrafzadeh) at 279:1-15):



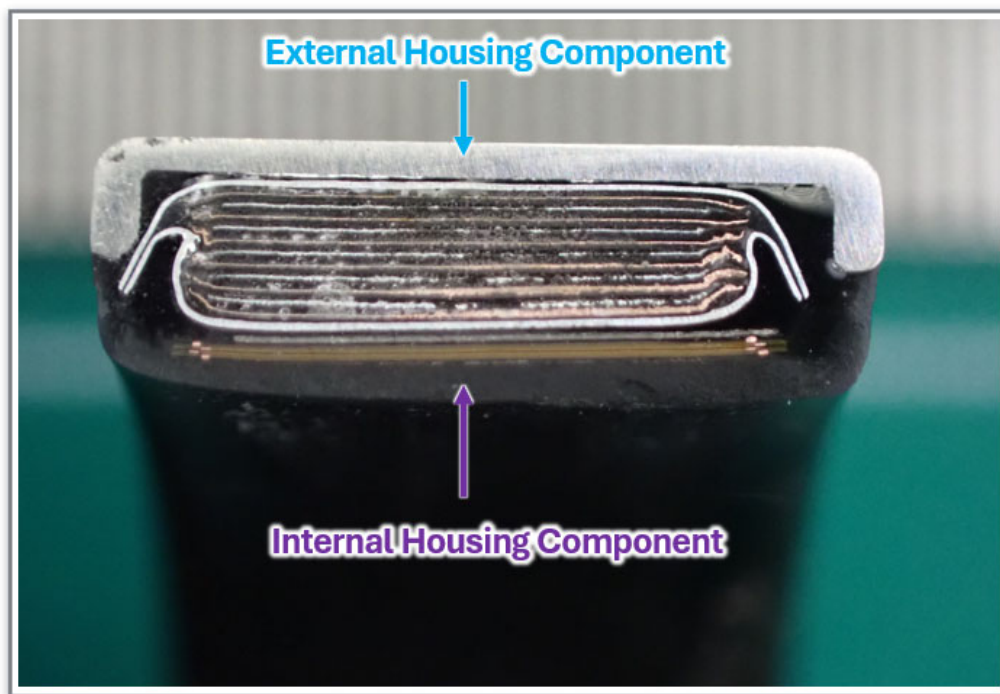
CX-0672 (Annotated)

Dr. Sarrafzadeh's product teardowns also show that the internal housing component is the layer of potting material that covers the battery and PCB, forms a seal with the external housing

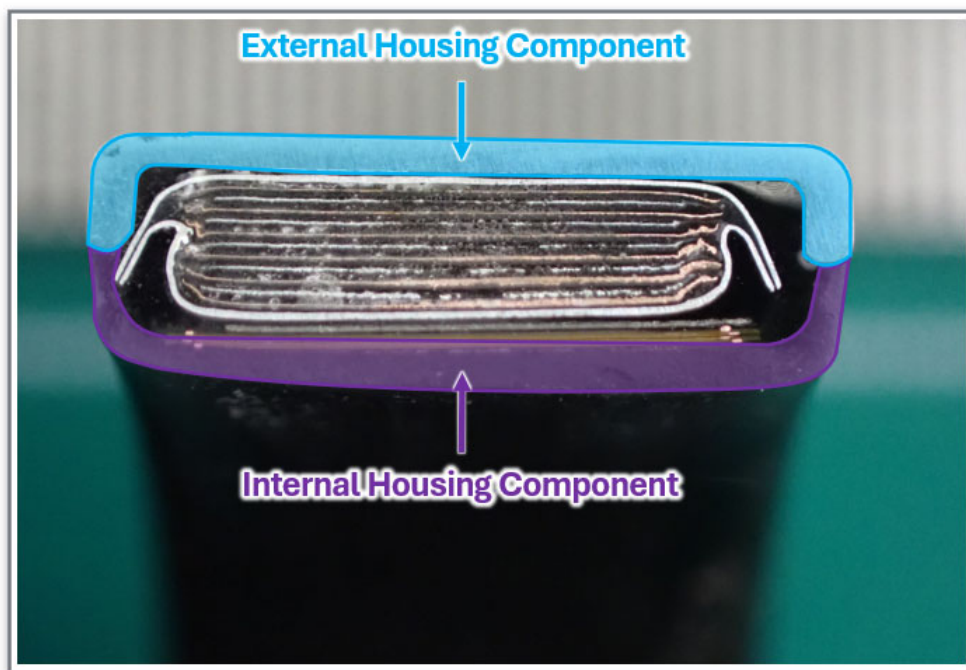
component, and defines the inner circumferential surface of the ring. Tr. (Sarrafzadeh) at 277:13-278:3; Tr. (Alarcon) at 1026:15-23 (“I think it’s fair to say that when potting material surrounds the components, it seals them” and “covers” them); *id.* at 1027:5-12; *id.* at 1028:1-2 (“Potting material forms the inner surface of the ring”).



CX-1040; CPX-0199



CX-1088; CPX-0199



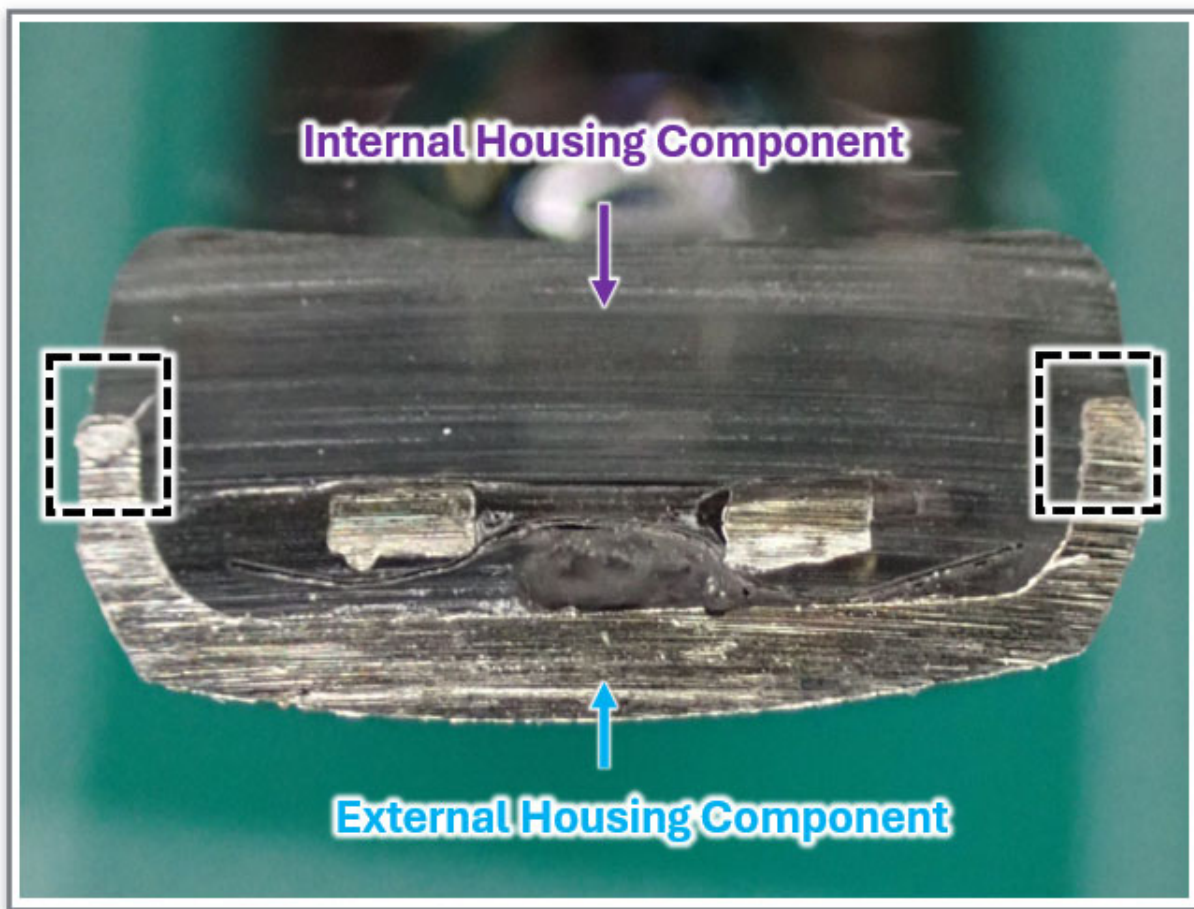
Id.

d. Limitation 1[b-ii]

Limitation 1[b-ii] requires “the internal housing component coupled with the external housing component.” JX-0001 at 44:51-52. Both RingConn and Ultrahuman Accused Products practice this limitation.

(i) RingConn Accused Product

RingConn Accused Product includes the **internal housing component** coupled with (i.e., connected with) the **external housing component**. Tr. (Sarrafzadeh) at 281:14-282:18; CX-1035; CPX-0197; CDX-0003.58-59. As explained by Dr. Sarrafzadeh, the potting material that forms the internal housing component adheres to the metallic structure that is the external housing component, and therefore the internal housing and external housing components are coupled or connected together:



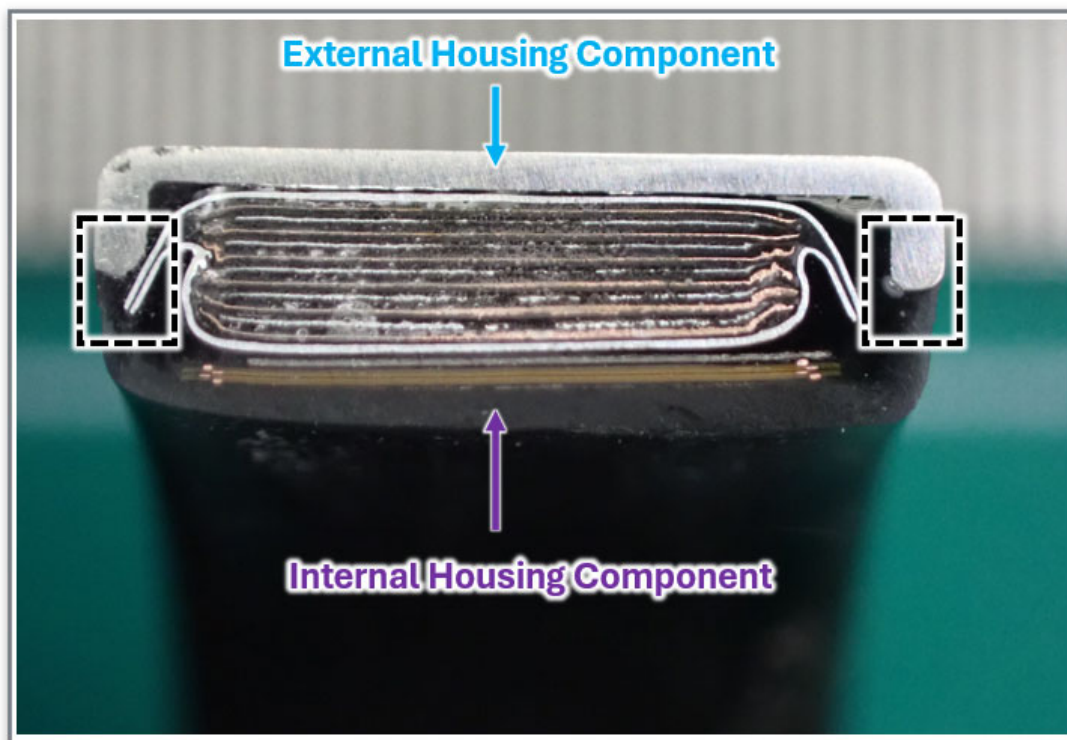
CX-1035; CPX-0197

Respondents' expert, Alarcon, agreed that the internal potting material adhered to the outer ring. Tr. (Alarcon) at 1030:3-8 ("I think it's fair to say that the potting material, which is epoxy, adheres to the metal of what's shown in these images here, which is the outer metal component.").

(ii) Ultrahuman Accused Product

Ultrahuman Accused Product also includes the **internal housing component** coupled with (i.e., connected with) the **external housing component**. Tr. (Sarrafzadeh) at 282:19-283:13; CX-1088; CPX-0199; CDX-0003.60-62. As explained by Dr. Sarrafzadeh, the potting material that forms the internal housing component adheres to the metallic structure that is the external housing component, and therefore the internal housing and external housing components are coupled or

connected together:



CX-1088; CPX-0199

Respondents' expert, Alarcon agreed that the internal potting material adhered to the outer ring. Tr. (Alarcon) at 1030:3-8 ("I think it's fair to say that the potting material, which is epoxy, adheres to the metal of what's shown in these images here, which is the outer metal component.").

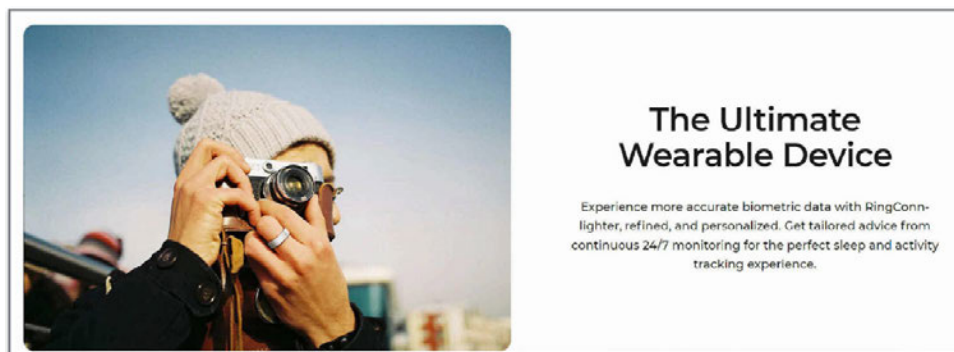
e. Limitation 1[b-iii]

Limitation 1[b-iii] requires "wherein at least a portion of the inner circumferential surface of the internal housing component is configured to contact a tissue of a user when the finger-worn wearable ring device is worn by the user." JX-0001 at 44:52-56. Both RingConn and Ultrahuman Accused Products practice this limitation.

(i) RingConn Accused Product

RingConn Accused Product includes at least a portion of the inner circumferential surface of the internal housing component that is configured to contact a tissue of a user when the finger-

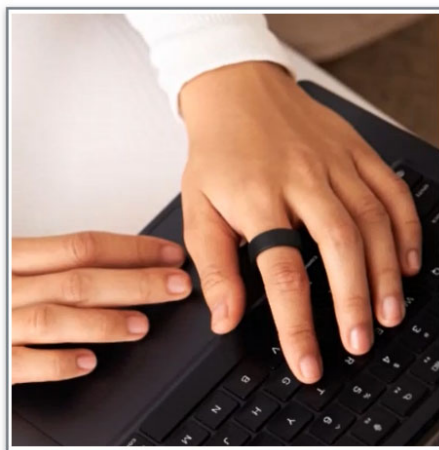
worn wearable ring device is worn by the user. Tr. (Sarrafzadeh) at 303:11-304:10; CX-0703; CDX-0003C.69. Indeed, as explained by Dr. Sarrafzadeh, when the RingConn Accused Product is worn by the user, at least a portion of the inner circumferential surface touches the tissue of the user which he confirmed by wearing the ring (Tr. (Sarrafzadeh) at 304:20-22):



CX-0703

(ii) Ultrahuman Accused Product

Ultrahuman Accused Product includes at least a portion of the inner circumferential surface of the internal housing component that is configured to contact a tissue of a user when the finger-worn wearable ring device is worn by the user. Tr. (Sarrafzadeh) at 304:11-24; CX-0671; CDX-0003C.71. Indeed, as explained by Dr. Sarrafzadeh, when the Ultrahuman Accused Product is worn by the user, at least a portion of the inner circumferential surface touches the tissue of the user which he confirmed by wearing the ring (Tr. (Sarrafzadeh) at 304:20-22):



CX-0671

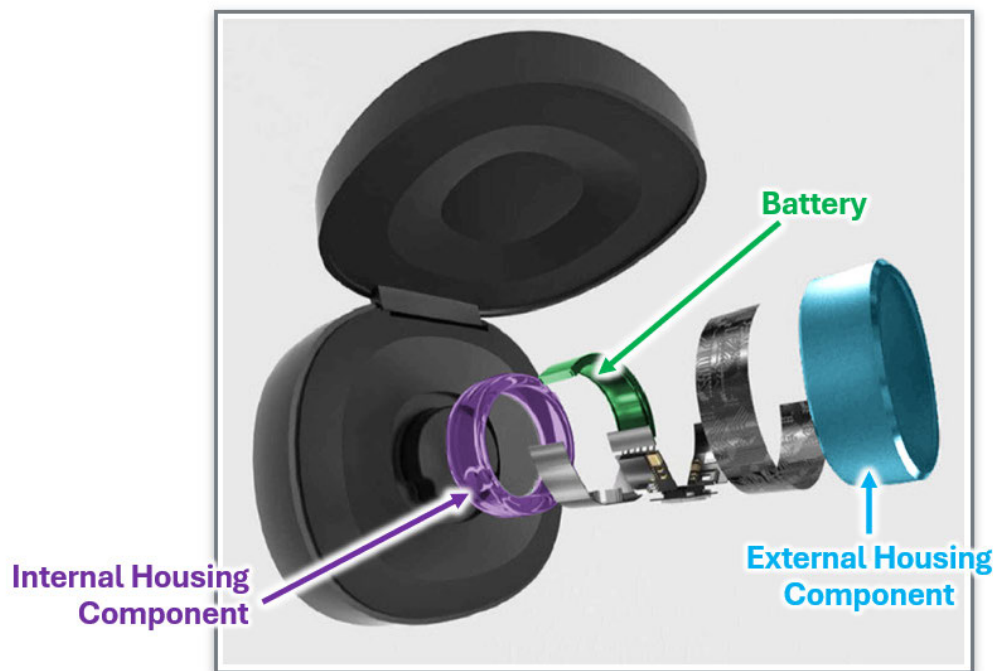
f. Limitation 1[c-i]

Limitation 1[c-i] requires “a battery positioned within a cavity formed between the internal housing component and the external housing component.” JX-0001 at 44:57-59. Both RingConn and Ultrahuman Accused Products practice this limitation.

(i) RingConn Accused Product

RingConn Accused Product includes a battery positioned within a cavity formed between the internal housing component and the external housing component. Tr. (Sarrafzadeh) at 306:14-315:2; CX-0567; CX-0032C; CX-0034C; CX-0036C; CX-0037C; CX-1046; CPX-0198; CDX-0003C.77-80.

As shown in RingConn’s own product depiction, the **battery** is positioned within the space that is created between the external metallic structure (i.e., **external housing component**) and the internal structure formed of a layer of solidified epoxy or potting material (i.e., **internal housing component**) as shown below (Tr. (Sarrafzadeh) at 306:17-307:1):

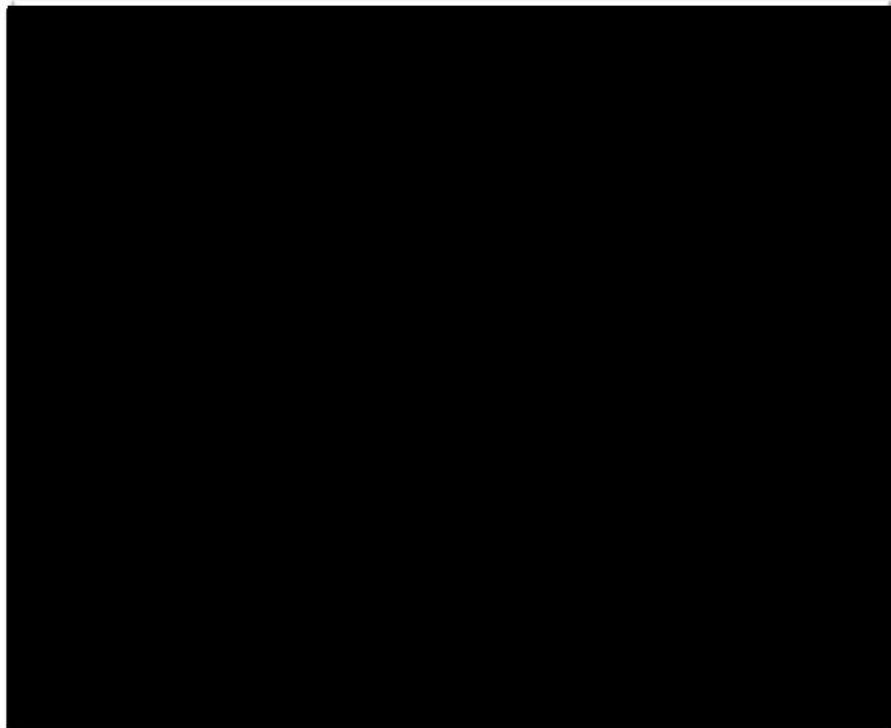


CX-0567

RingConn's manufacturing process shows that [REDACTED]

[REDACTED] See Tr. (Sarrafzadeh) at 310:22-25 (citing RingConn corporate witness, Wang Min, Dep. Tr. at 33:6-14) [REDACTED]

See also Tr. (Min) at 1167:2-1168:10.



CX-0034C at 0:00-0:11; See also CX-0032C-CX-0037C; CDX-003C.79; Tr. (Sarrafzadeh) at 308:1-3, 308:11-16 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

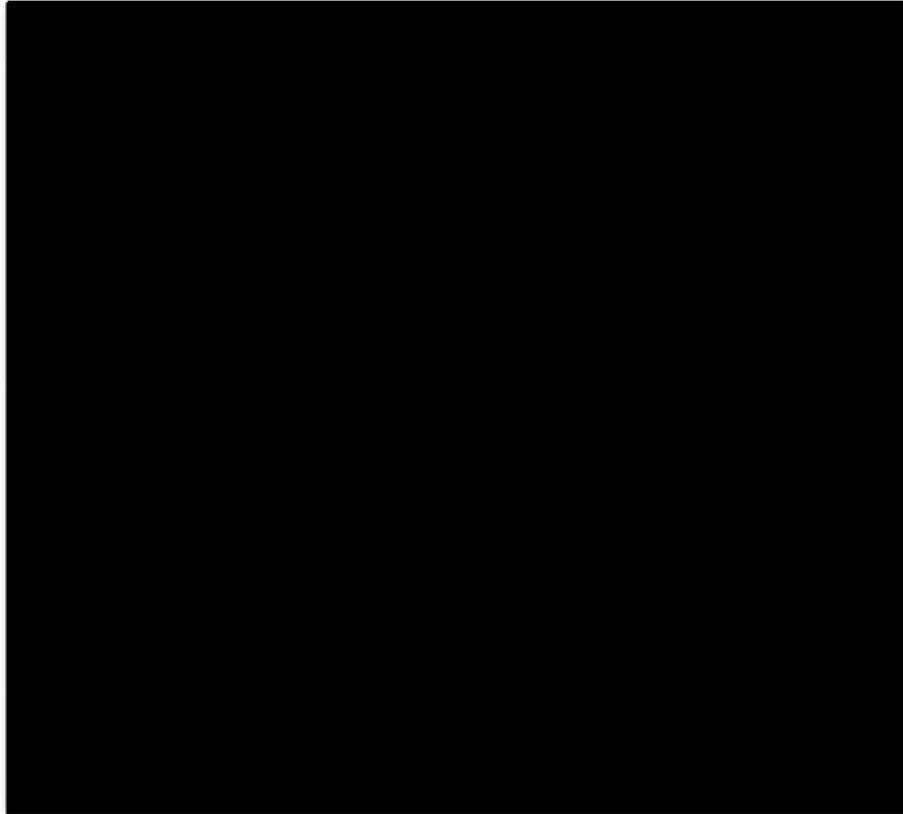
[REDACTED]

[REDACTED]

CX-0036C at 0:35; Tr. (Sarrafzadeh) at 310:10-13 [REDACTED]

[REDACTED]

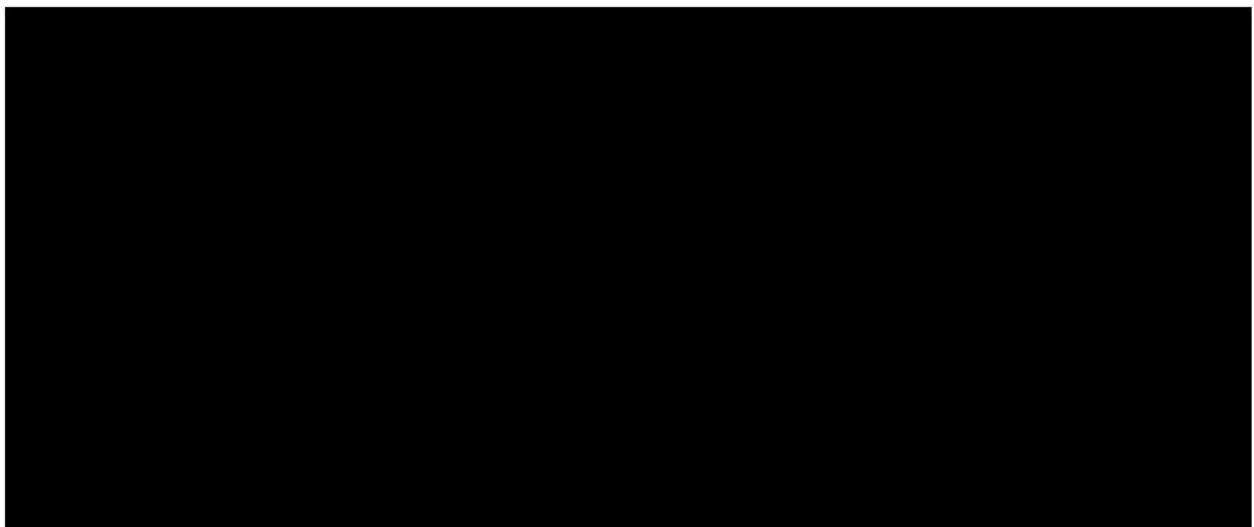
[REDACTED]



CX-0036C at 0:44.

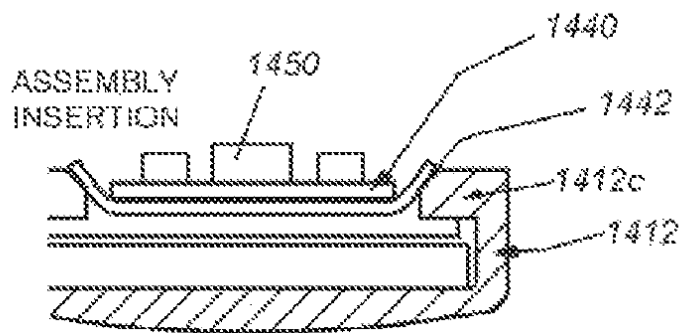


 Tr. (Sarrafzadeh) at 310:14-21):



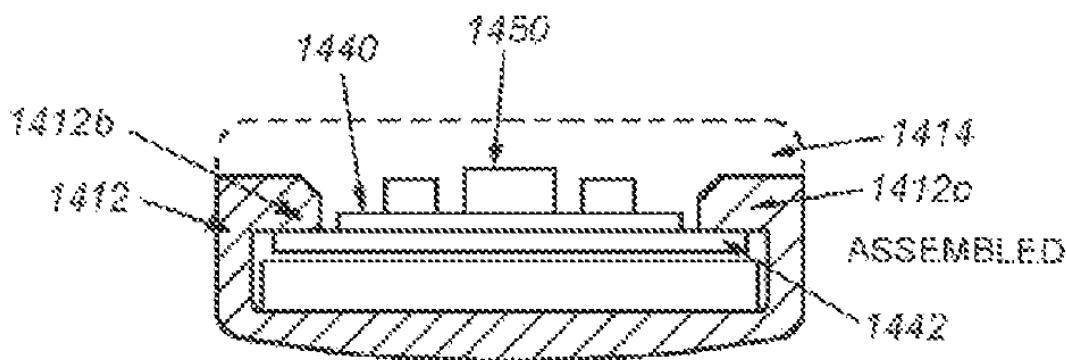
CX-0037C.

[REDACTED]. For example, with reference to Figs. 14D and 14E, the ‘178 patent discloses that the assembly/manufacture process where components are “inserted into the internal space 1420 [] prior to the application of potting 1414.” ‘178 patent (JX-0001) at 20:4-7; *id.* at 9-11 (“the PCB 1440 . . . can be inserted into the internal space 1420.”).



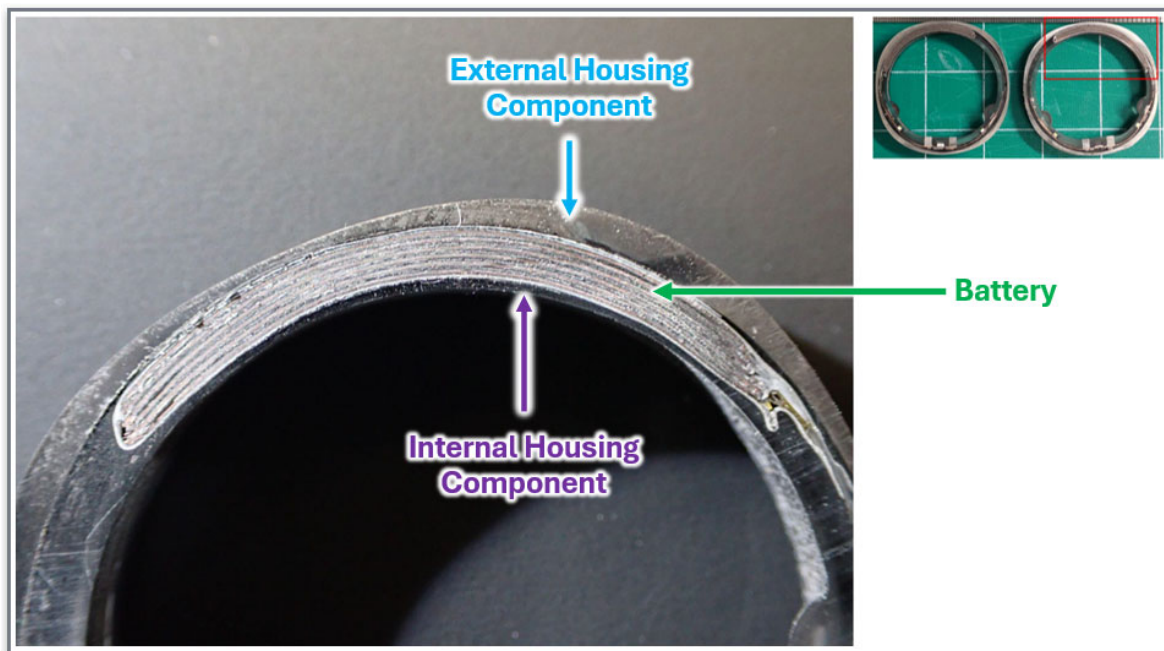
‘178 patent (JX-0001) at FIG. 14D

And once the components such as battery and PCB are inserted into the space (or ridge) of the external housing component 1412, the potting is applied to enclose the components between the external and internal housing components. *Id.* at 20:21-23 (“Once inserted, the potting 1414 can be applied”):



‘178 patent (JX-0001) at FIG. 14E; *See also* Fig. 13, Fig. 18B, Fig. 20A, Fig. 31C.

Once assembled, Ringconn Accused Product includes a battery positioned within a cavity *formed between the internal housing component and the external housing component*: “And when all of this fit together, the external housing component blue, the internal housing component purple, the battery will go in between the two.” Tr. (Sarrafzadeh) at 306:24-307:1; *id.* at 314:15 (“The cavity is where the battery is placed.”).



CX-1046.

Respondents’ expert admitted that the space occupied by the battery of Respondents’ product was between the outer ring and the layer of potting material identified by Dr. Sarrafzadeh that forms the inner surface of the ring. Tr. (Alarcon) at 1059:1-2 (“the battery would be between”). Respondents’ expert further conceded that the batteries and PCBs in Respondents Accused Products are located within the ring and they take up space (i.e., hollow space) between the external housing component and internal housing component:

Q. And the batteries and PCBs in those products are inside the rings, correct?

A. Yes, they are the - - the batteries and PCBs are inside the rings.

Q. If those components are not in a cavity, where are

they located?

A. I guess I don't understand your question there. They are within the ring, but as I have demonstrated, there is no cavity. This is something different. The cavity has a meaning, and there are no cavities, as I have testified to.

Q. All right. But batteries and PCBs do take up space, correct?

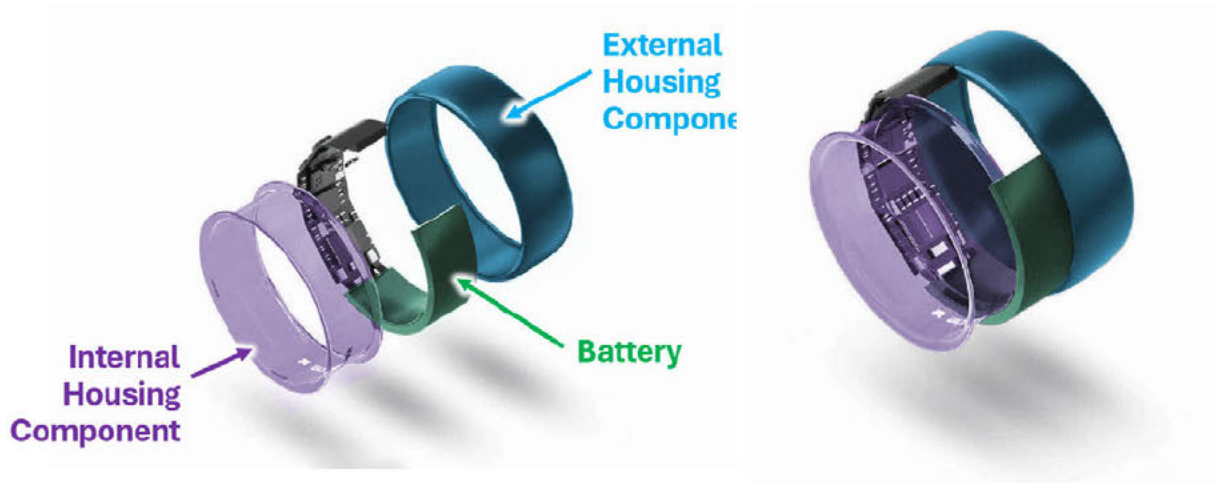
A. Yes, they take up space.

Tr. (Alarcon) at 1128:1-14.

Thus, the battery in the RingConn Accused Product is positioned within a cavity between the external and internal housing component.

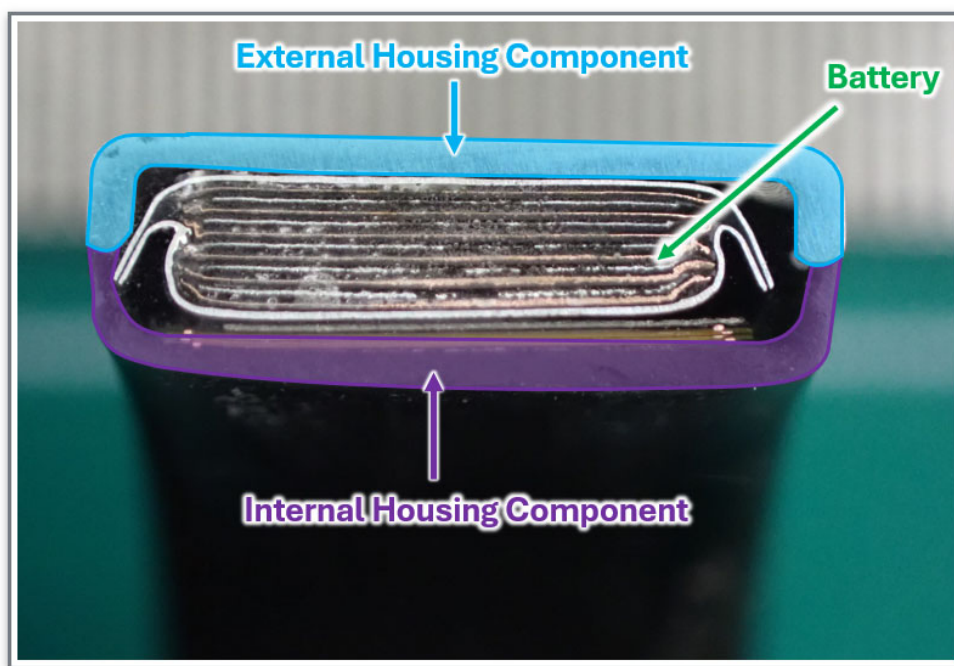
(ii) Ultrahuman Accused Product

Ultrahuman Accused Product also includes a battery positioned within a cavity formed between the internal housing component and the external housing component. Tr. (Sarrafzadeh) at 315:3-316:19; CX-0537; CX-1088; CDX-003C.81-83. As shown in Ultrahuman's own depiction of its accused product, the **battery** is positioned within the space that is created between the external metallic structure (i.e., **external housing component**) and the internal structure formed of solidified epoxy or potting material (i.e., **internal housing component**) as shown below (Tr. (Sarrafzadeh) at 315:9-316:2):





CX-0537. Ultrahuman’s renderings are consistent with Dr. Sarrafzadeh’s teardowns that show the battery positioned between the cavity (i.e., the space occupied by the battery) formed between the external and internal housing component (Tr. (Sarrafzadeh) at 316:3-19):



CX-1088

As stated above with respect to RingConn, Respondents’ expert admitted both that the battery is formed between an internal layer of potting material and an outer ring, and that the battery takes up space within the ring. Tr. (Alarcon) at 1059:1-2 (“the battery would be between”); *id.* at 1128:1-14 (“Yes they take up space.”).

Thus, the battery in the Ultrahuman Accused Product is positioned within a cavity between the external and internal housing component.

g. Limitation 1[c-ii]

Limitation 1[c-ii] requires “wherein the battery comprises a shape and size configured to fit within the cavity between the outer circumferential surface of the external housing component and the inner circumferential surface of the internal housing component.” JX-0001 at 44:59-63. Both RingConn and Ultrahuman Accused Products practice this limitation.

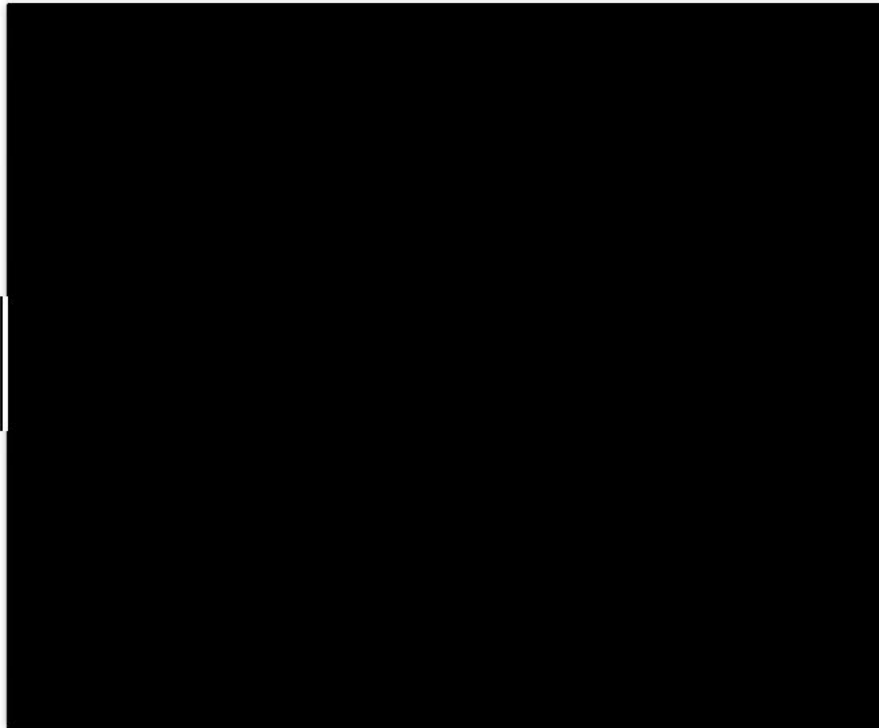
(i) RingConn Accused Product

RingConn Accused Product includes a battery that comprises a shape and size configured to fit within the cavity between the outer circumferential surface of the external housing component and the inner circumferential surface of the internal housing component. Tr. (Sarrafzadeh) at 319:19-322:10; CX-0647C; CX-1046; CX-0070; CX-0065; CX-0034C; CDX-0003C.91-94.

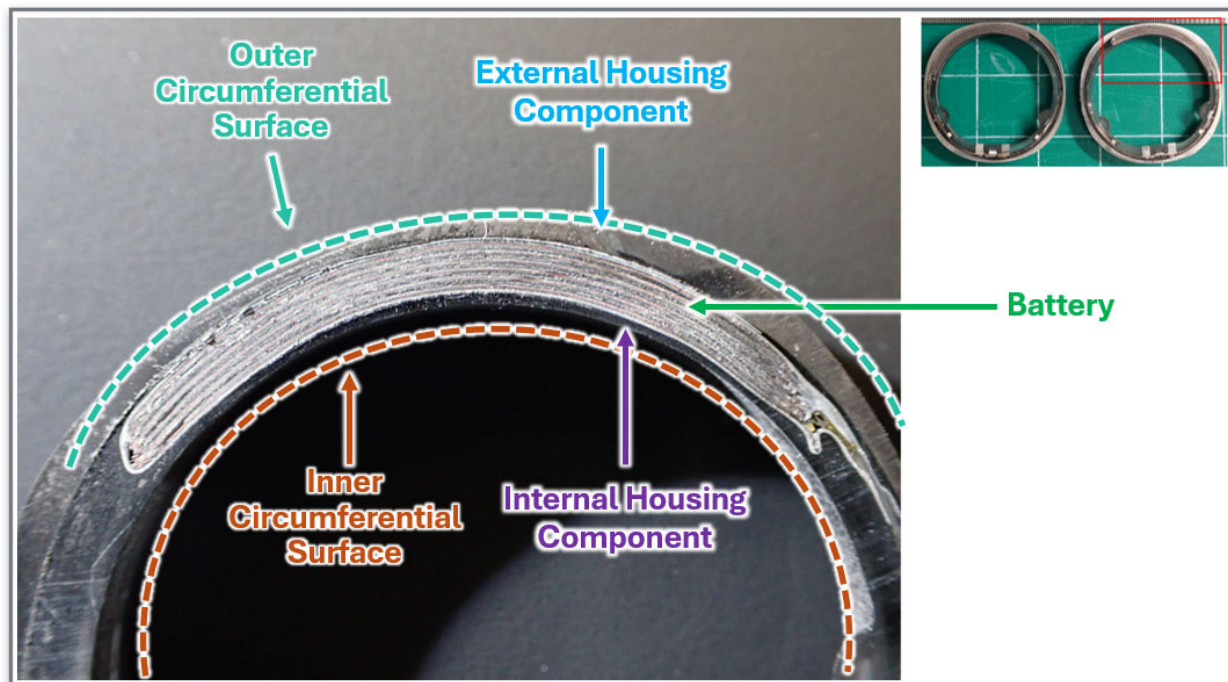
Indeed, as shown with reference to below schematics, product teardowns, and CT-scans, RingConn Accused Product includes an “**Arc-shaped battery**” (5) that is configured to fit within the **outer circumferential surface** portion of the **external housing component** within the ridge of the outer ring and the **inner circumferential surface** of the **internal housing component** formed of potting material:



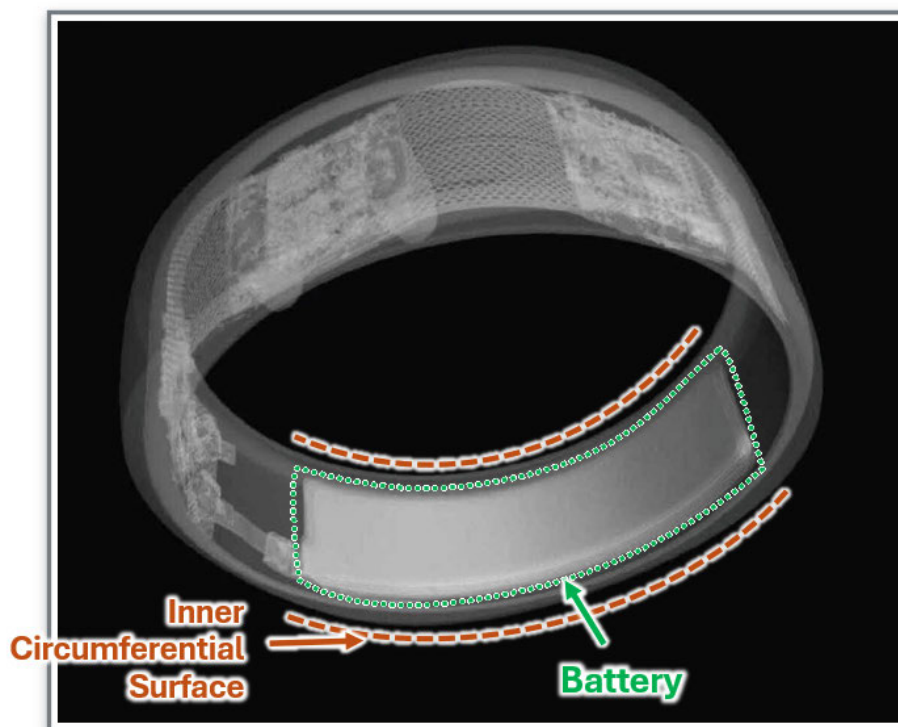
CX-0647C



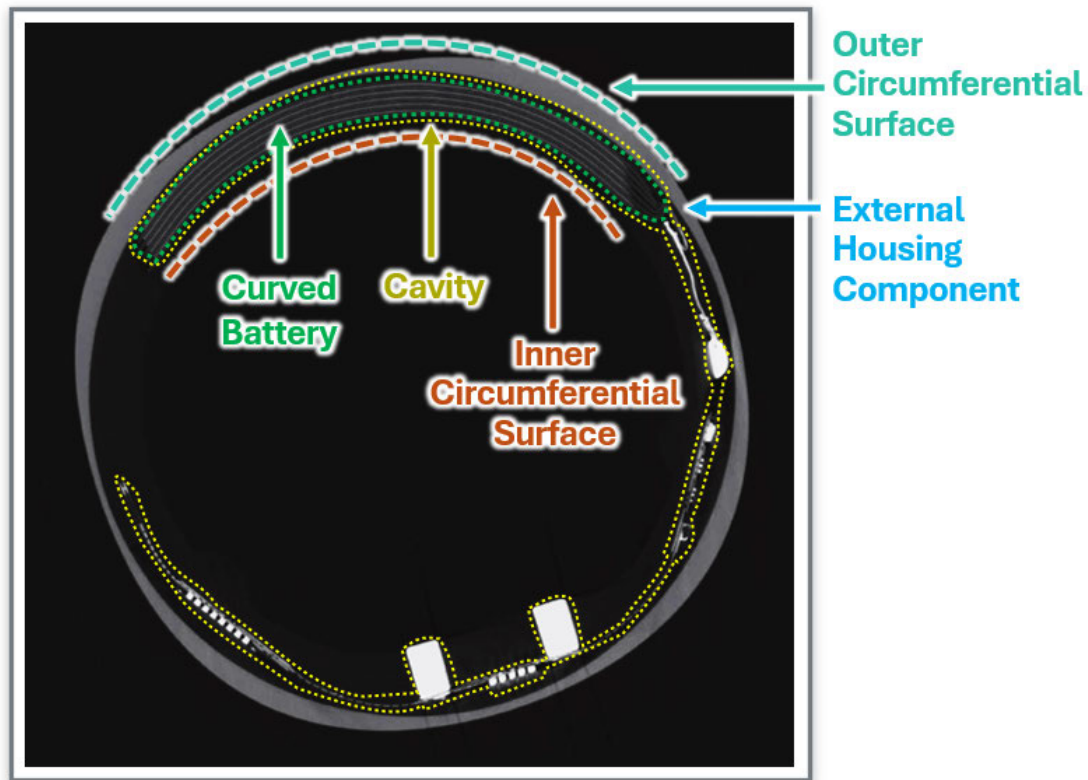
CX-0034C at 0:00-0:11;



CX-1046



CX-0070

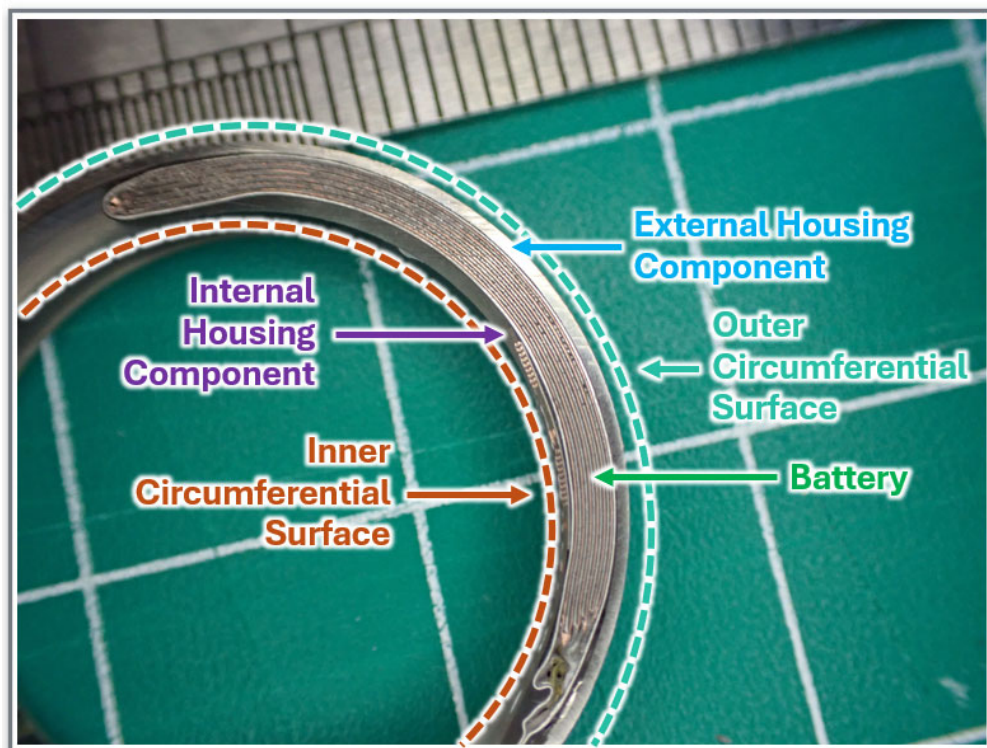


CX-0065

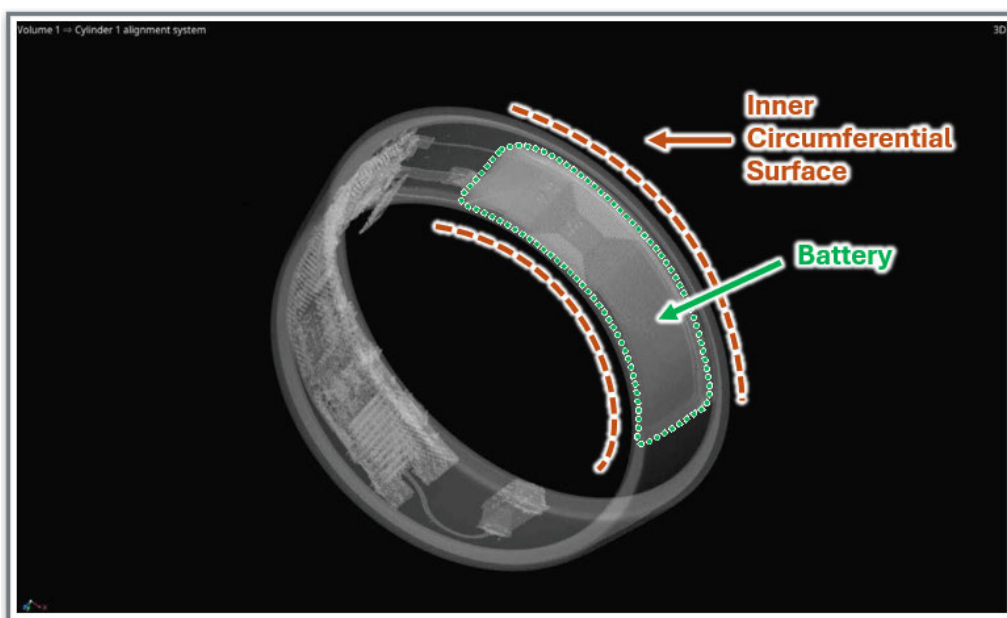
(ii) **Ultrahuman Accused Product**

Ultrahuman Accused Product includes a battery that comprises a shape and size configured to fit within the cavity between the outer circumferential surface of the external housing component and the inner circumferential surface of the internal housing component. Tr. (Sarrafzadeh) at 322:11-323:7; CX-1077; CX-0056; CX-0059; CDX-0003C.95-97.

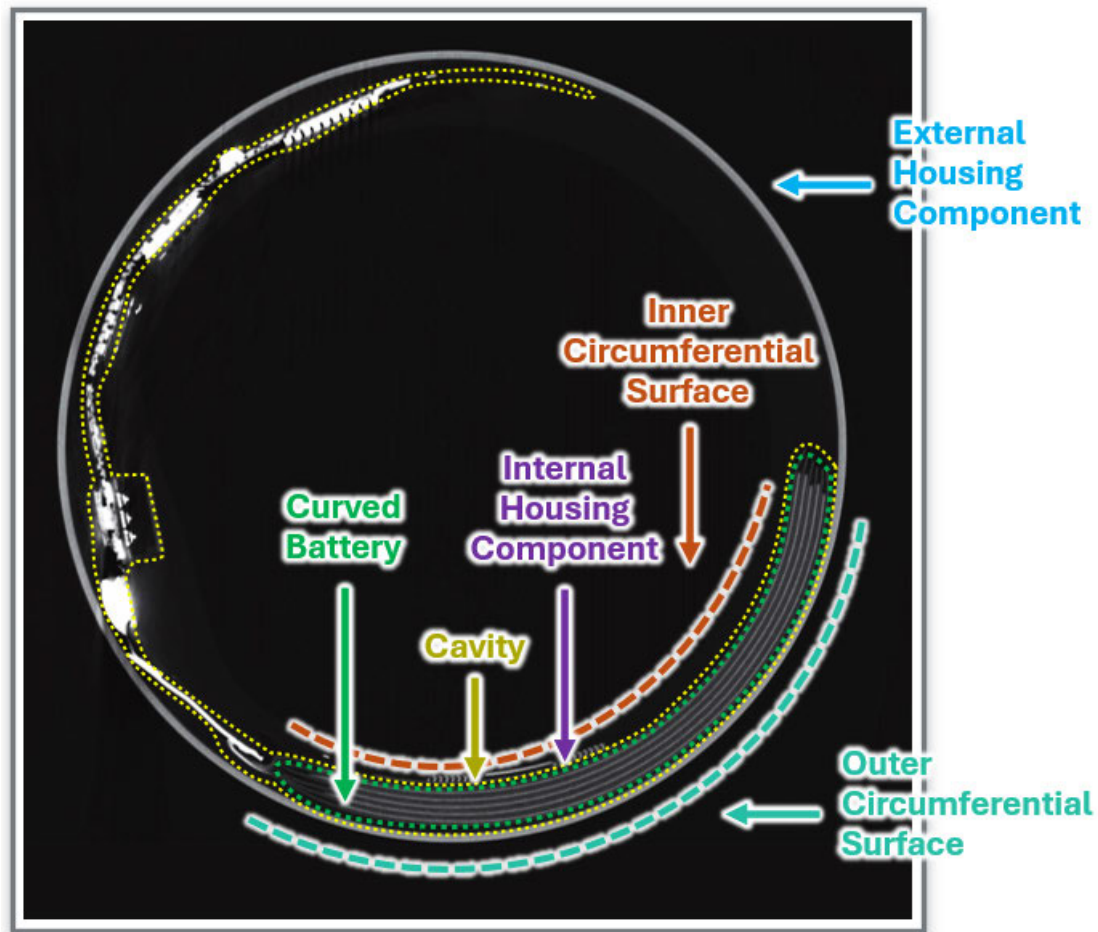
Indeed, as shown with reference to below product teardowns and CT-scans, Ultrahuman Accused Product includes a **curved battery** that is configured to within the **outer circumferential surface** portion of the **external housing component** within the ridge of the outer ring and the **inner circumferential surface** of the **internal housing component** formed of potting material:



CX-1077



CX-0059



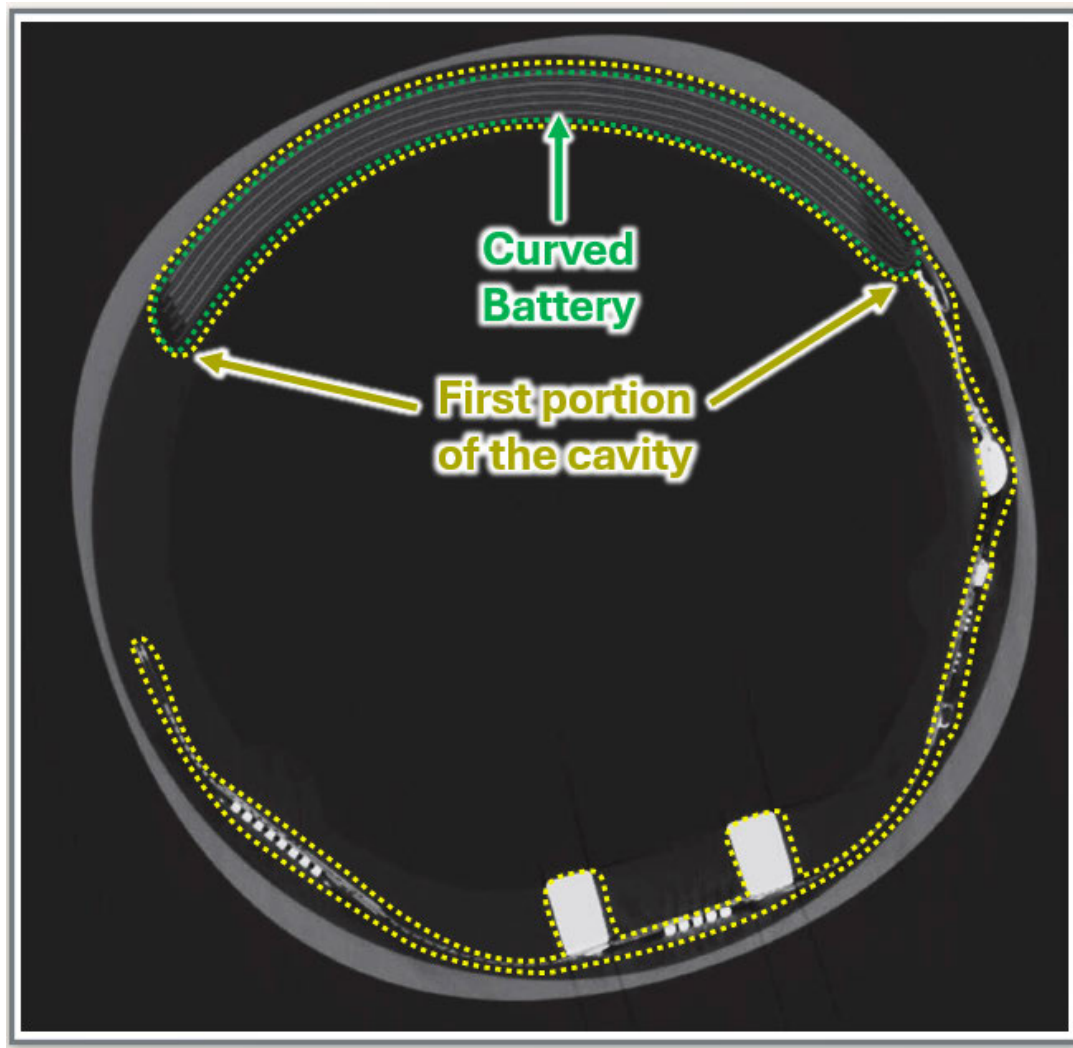
CX-0056

h. Limitation 1[c-iii]

Limitation 1[c-iii] requires “wherein the battery extends through a first portion of the cavity of the finger-worn wearable ring device.” JX-0001 at 44:63-65. Both RingConn and Ultrahuman Accused Products practice this limitation.

(i) RingConn Accused Product

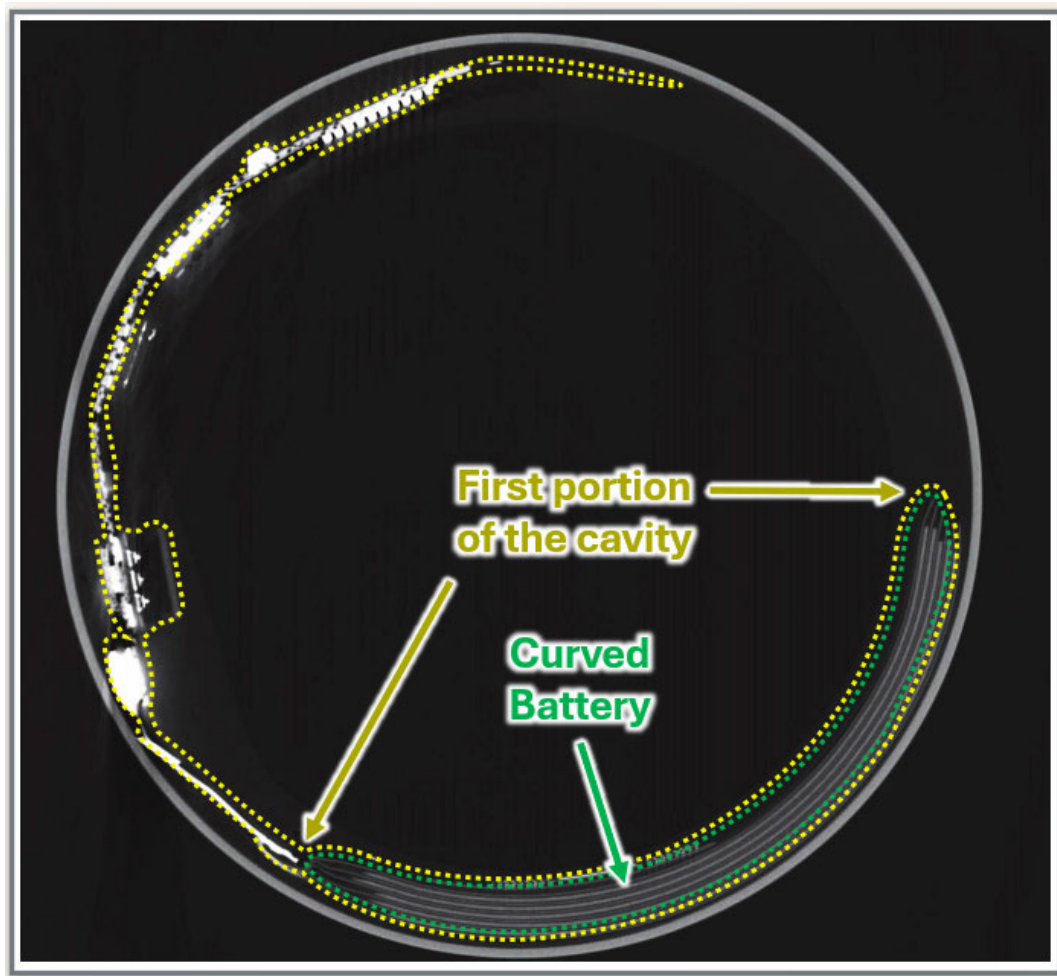
RingConn Accused Product includes a battery that extends through a first portion of the cavity of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 325:1-17; CX-0065; CDX-0003.104. Indeed, as shown below, the battery is positioned in the non-overlapping space of the ring compared to the PCB, and therefore battery extends through a first portion of the cavity of RingConn Accused Product:



CX-0065

(ii) Ultrahuman Accused Product

Ultrahuman Accused Product includes a battery that extends through a first portion of the cavity of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 325:18-326:1; CX-0056; CDX-0003.106. Indeed, as shown below, the battery is positioned in the non-overlapping space of the ring compared to the PCB, and therefore battery extends through a first portion of the cavity of Ultrahuman Accused Product:



CX-0056

i. Limitation 1[d]

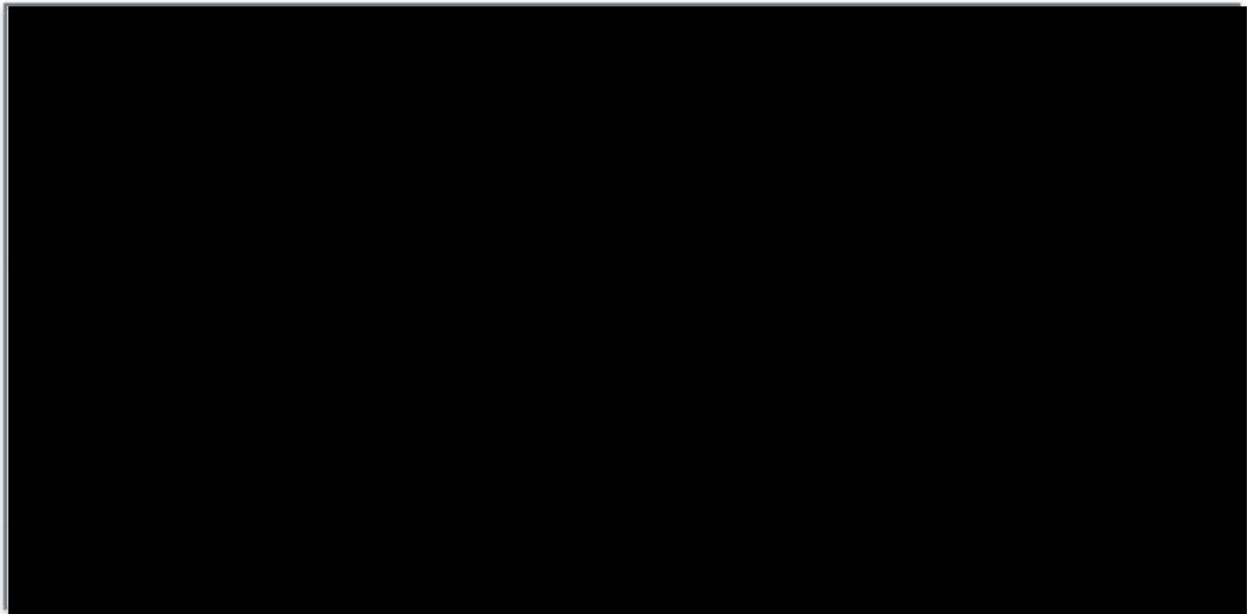
Limitation 1[d] requires “a printed circuit board disposed between the internal housing component and the external housing component, wherein the printed circuit board extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion.” JX-0001 at 44:66-45:4. Both RingConn and Ultrahuman Accused Products practice this limitation.

(i) RingConn Accused Product

RingConn Accused Product includes a printed circuit board disposed between the internal housing component and the external housing component, wherein the printed circuit board extends

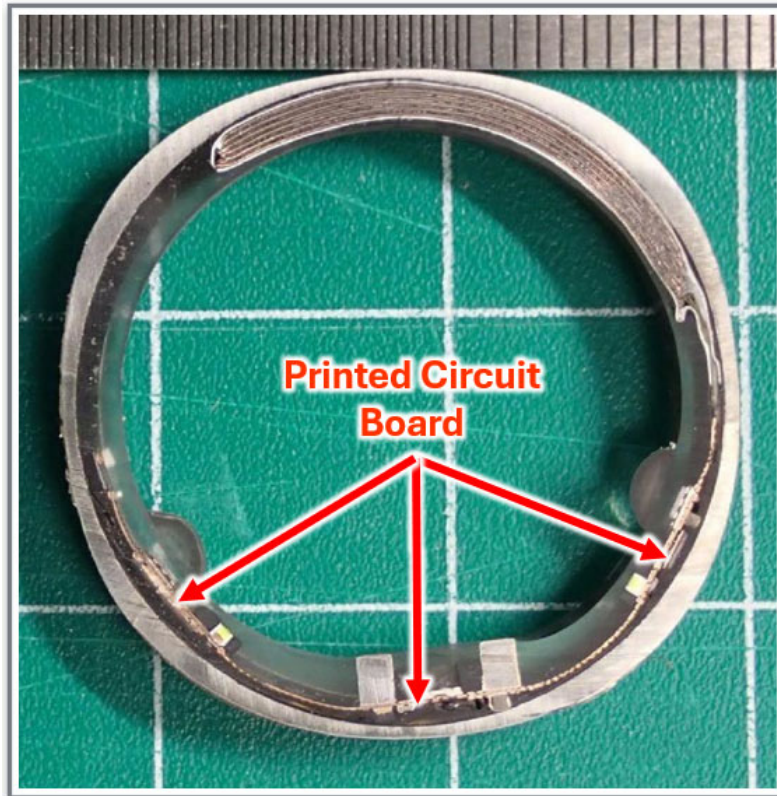
through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion of the cavity occupied by the battery. Tr. (Sarrafzadeh) at 327:13-330:24; CX-00032C; CX-00034C; CX-00036C; CX-00037C; CX-0647C; CX-1040; CX-1044; CX-1045; CX-0065; CDX-0003C.112-116.

As shown in RingConn's engineering schematics, RingConn Accused Product includes a **printed circuit board** that RingConn identifies as an "Electronic module":

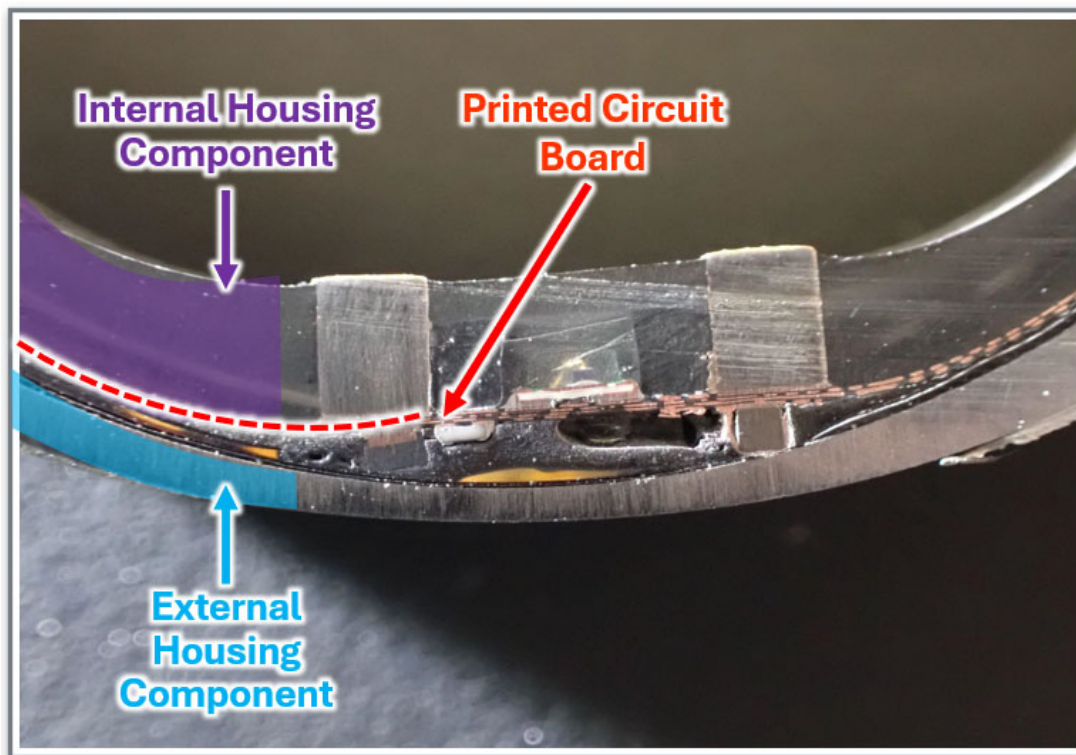


CX-0647C

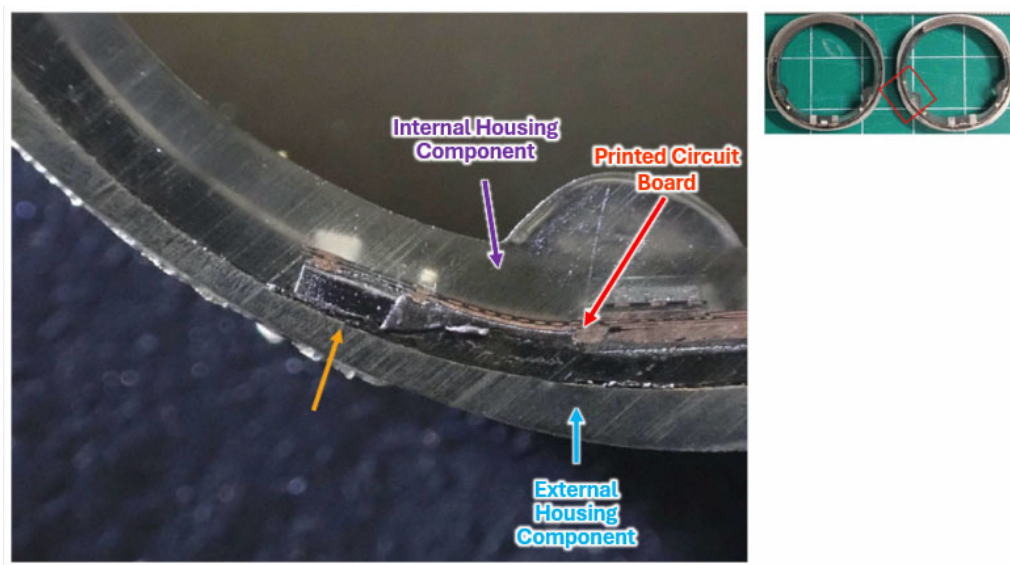
And as can be seen in product teardowns conducted by Dr. Sarrafzadeh, the **printed circuit board** is disposed between the transparent **internal housing component** (i.e., inner ring formed of solidified potting material) and the metallic **external housing component** (i.e., outer ring made of metallic material):



CX-1040

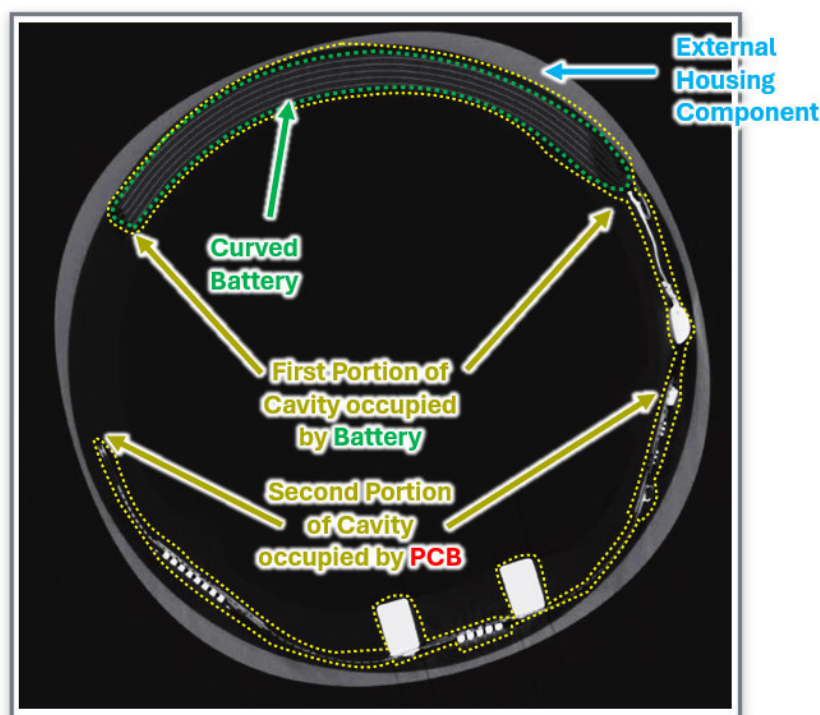


CX-1044



CX-1045

The printed circuit board also extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion of the cavity occupied by the battery because the PCB and battery in RingConn Accused Product are positioned in non-overlapping configuration and occupy different areas within the ring:



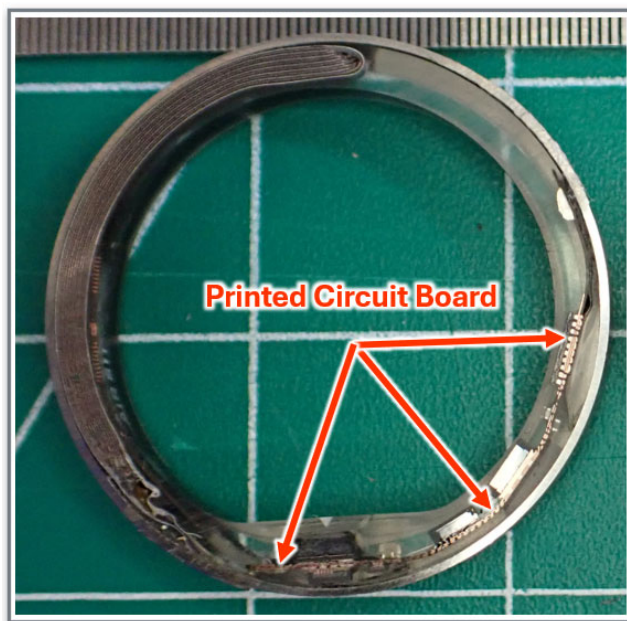
CX-0065

Respondents' expert admitted that the PCB of Respondents' product was between the outer metallic ring and the layer of potting material identified by Dr. Sarrafzadeh that forms the inner surface of the ring. Tr. (Alarcon) at 1057:16-18 ("between that arbitrary layer and the outer, yes, there is a printed circuit board between there").

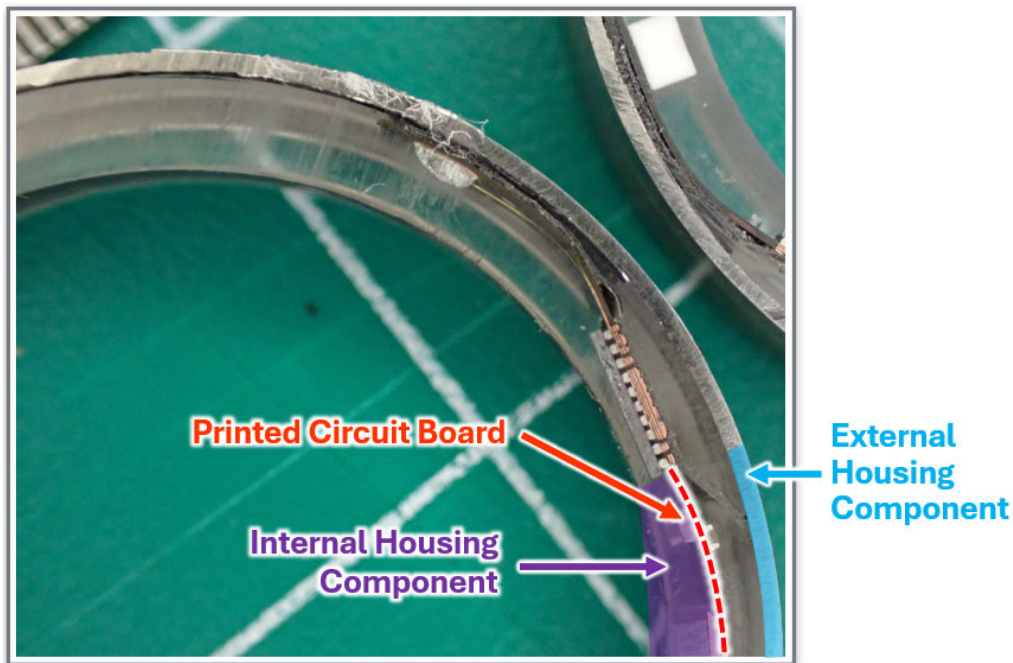
(ii) Ultrahuman Accused Product

Ultrahuman Accused Product includes a printed circuit board disposed between the internal housing component and the external housing component, wherein the printed circuit board extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion of the cavity occupied by the battery. Tr. (Sarrafzadeh) at 330:25-322:22; CX-1069; CX-1070; CX-0056; CDX-0003.117-119.

And as can be seen in product teardowns conducted by Dr. Sarrafzadeh, the **printed circuit board** is disposed between the transparent **internal housing component** (i.e., inner ring formed of solidified potting material) and the metallic **external housing component** (i.e., outer ring made of metallic material):



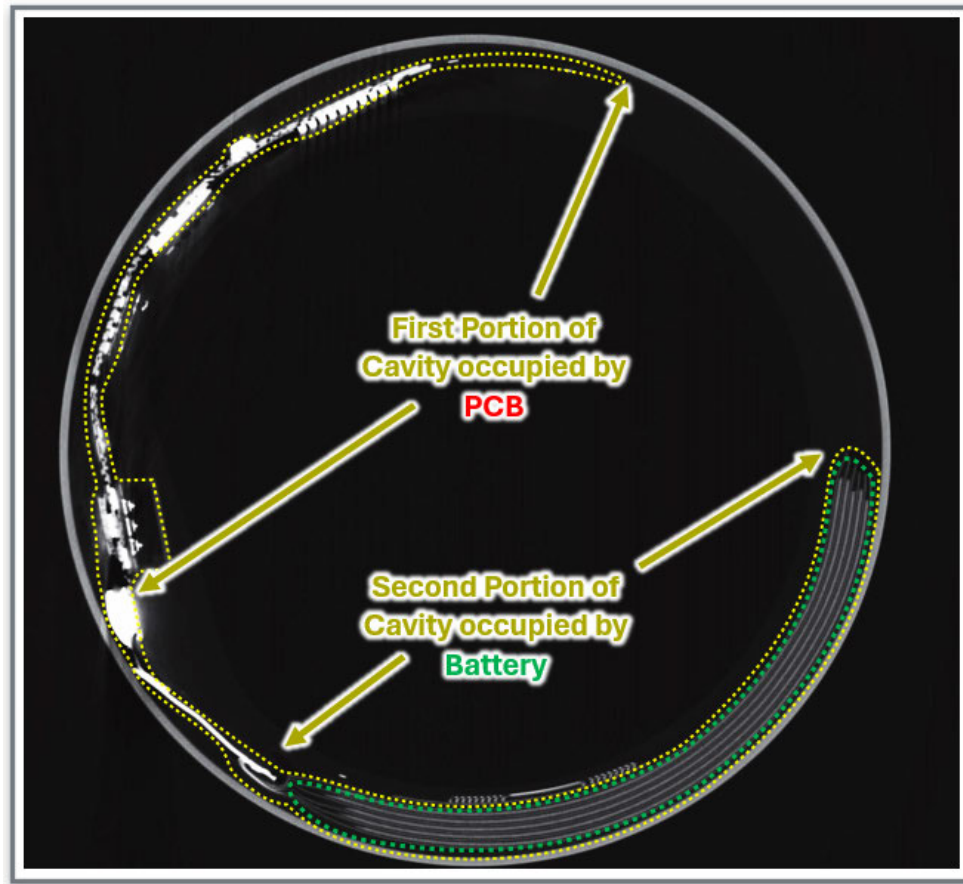
CX-1069



CX-1070

Respondents' expert admitted that the PCB of Respondents' products was between the outer ring and the layer of potting material identified by Dr. Sarrafzadeh that forms the inner surface of the ring. Tr. (Alarcon) at 1057:16-18 ("between that arbitrary layer and the outer, yes, there is a printed circuit board between there").

The printed circuit board also extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion of the cavity occupied by the battery because the PCB and battery in Ultrahuman Accused Product are positioned in non-overlapping configuration and occupy different areas within the ring:



CX-0056

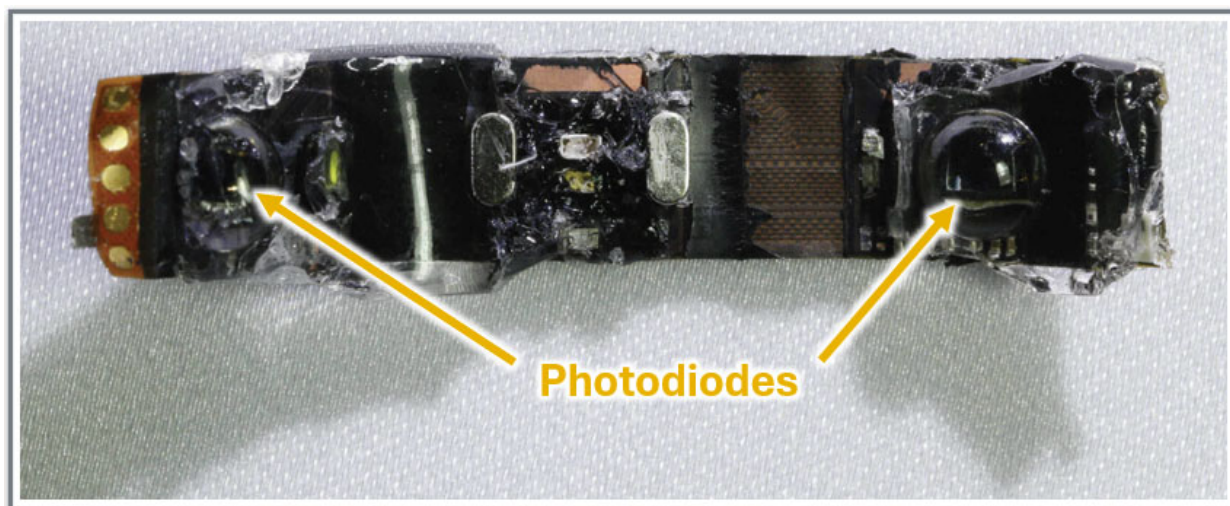
j. Limitation 1[e].

Limitation 1[e] requires “one or more sensors electrically coupled with the printed circuit board and the battery and configured to acquire data from the user through the internal housing component.” JX-0001 at 45:5-8. Both RingConn and Ultrahuman Accused Products practice this limitation.

(i) RingConn Accused Product

RingConn Accused Product includes one or more sensors electrically coupled with the printed circuit board and the battery and configured to acquire data from the user through the internal housing component. Tr. (Sarrafzadeh) at 334:9-337:4; CX-0403; CX-0404; CX-0417; CX-0033C; CX-0070; CX-0069; CX-0032C. Indeed, as shown below, RingConn Accused Product includes a number of LEDs and photodiode sensors coupled to the PCB that are configured to

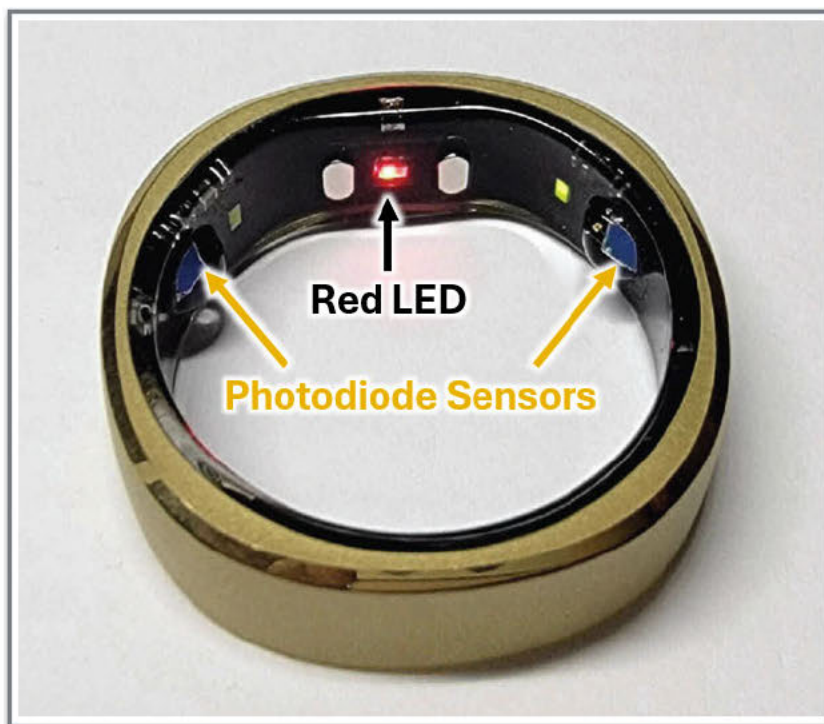
acquire data from the red, green, and infrared light emitted from the LEDs and the reflection detected by the photodiode sensors through the transparent internal housing component:



CX-0417

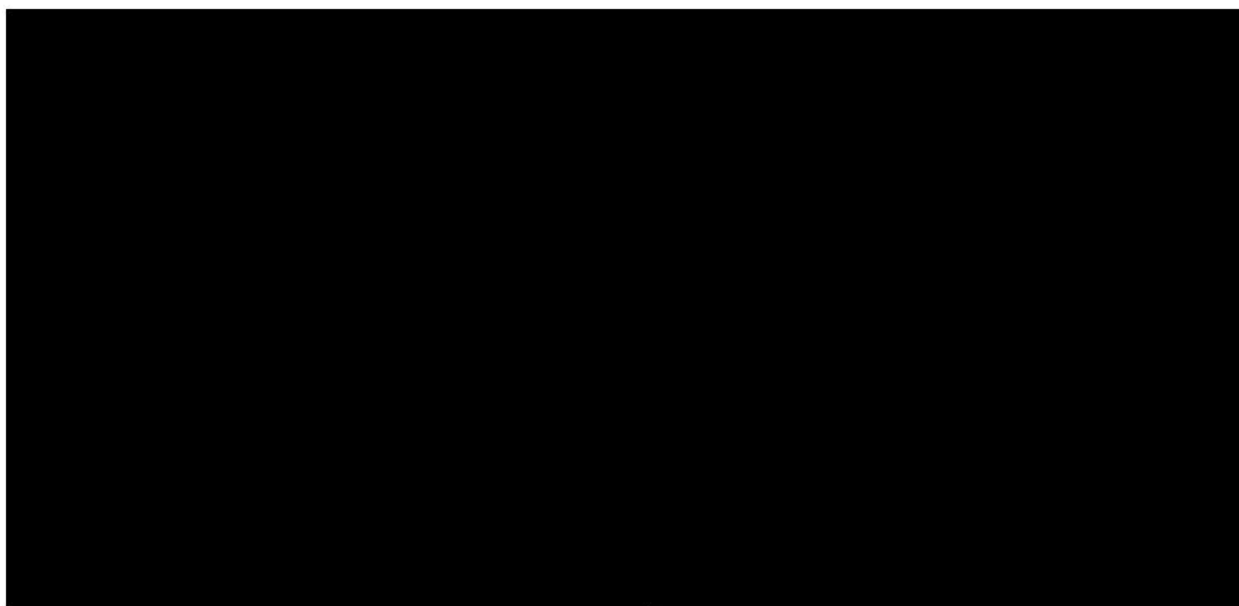


CX-0403



CX-0404

The LED and photodiode sensors that are located on the PCB are also connected to the battery as shown in RingConn's manufacturing videos, and therefore the one or more sensors are coupled to both the PCB and the battery:



CX-0032C

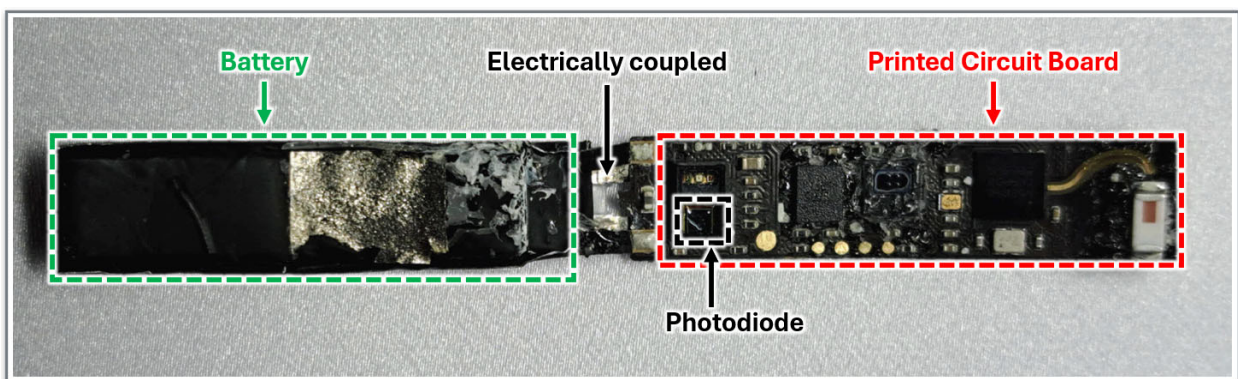


CX-0033C

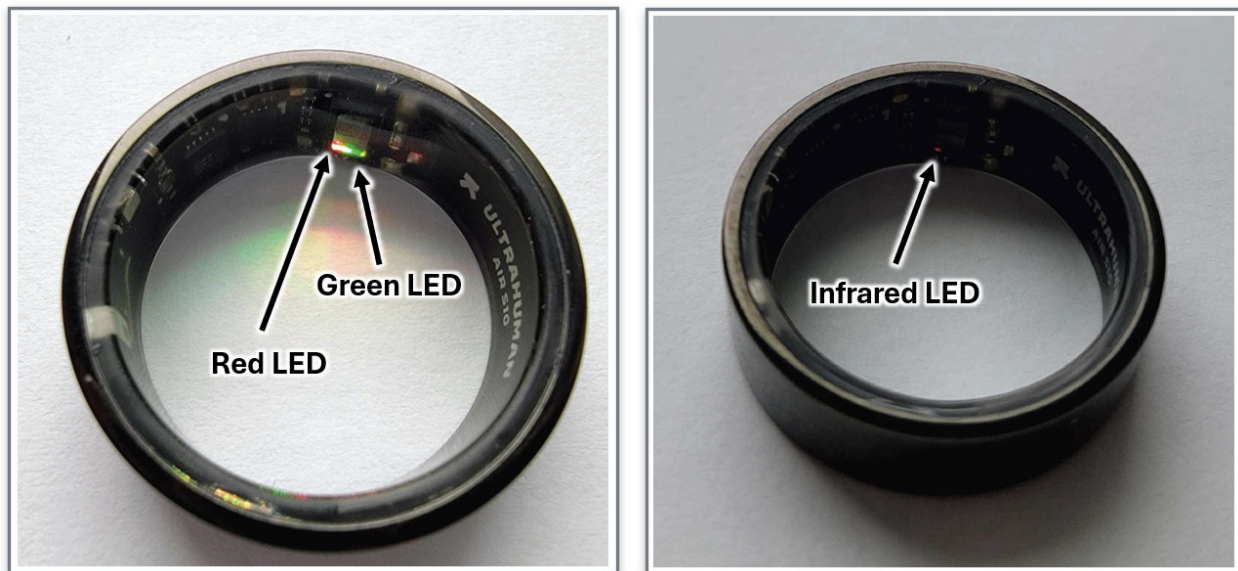
And as explained by Dr. Sarrafzadeh, because the rings do not have a display, the acquired data goes hand-in-hand with a corresponding RingConn App to which the data is sent to be displayed to the user. Tr. (Sarrafzadeh) at 335:15-17.

(ii) Ultrahuman Accused Product

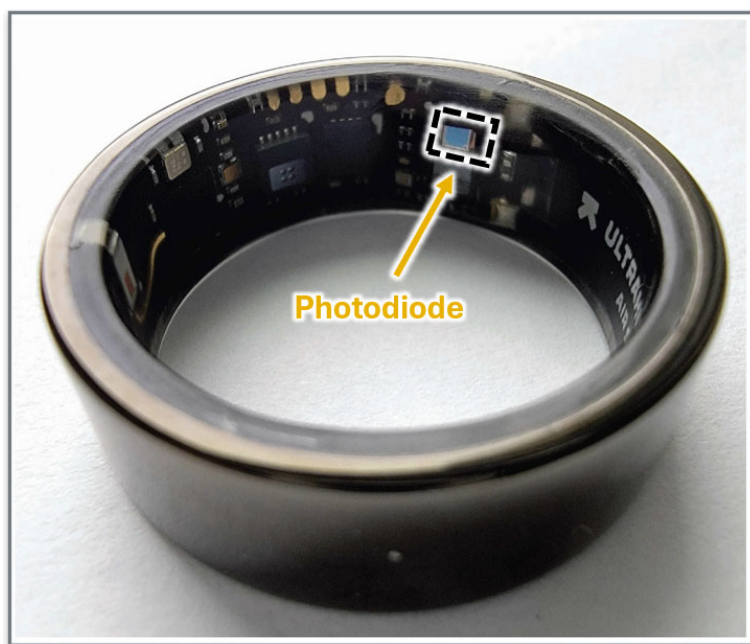
Ultrahuman Accused Product includes one or more sensors electrically coupled with the printed circuit board and the battery and configured to acquire data from the user through the internal housing component. *Id.* at 337:5-338:15; CX-0312; CX-0313; CX-0314; CX-0287. Indeed, as shown below, Ultrahuman Accused Product includes a number of LEDs and photodiode sensors coupled to the PCB and battery, and configured to acquire data from the red, green, and infrared light emitted from the LEDs and detected by the photodiode sensors through the transparent internal housing component:



CX-0287



CX-0312; CX-0313.



CX-0314

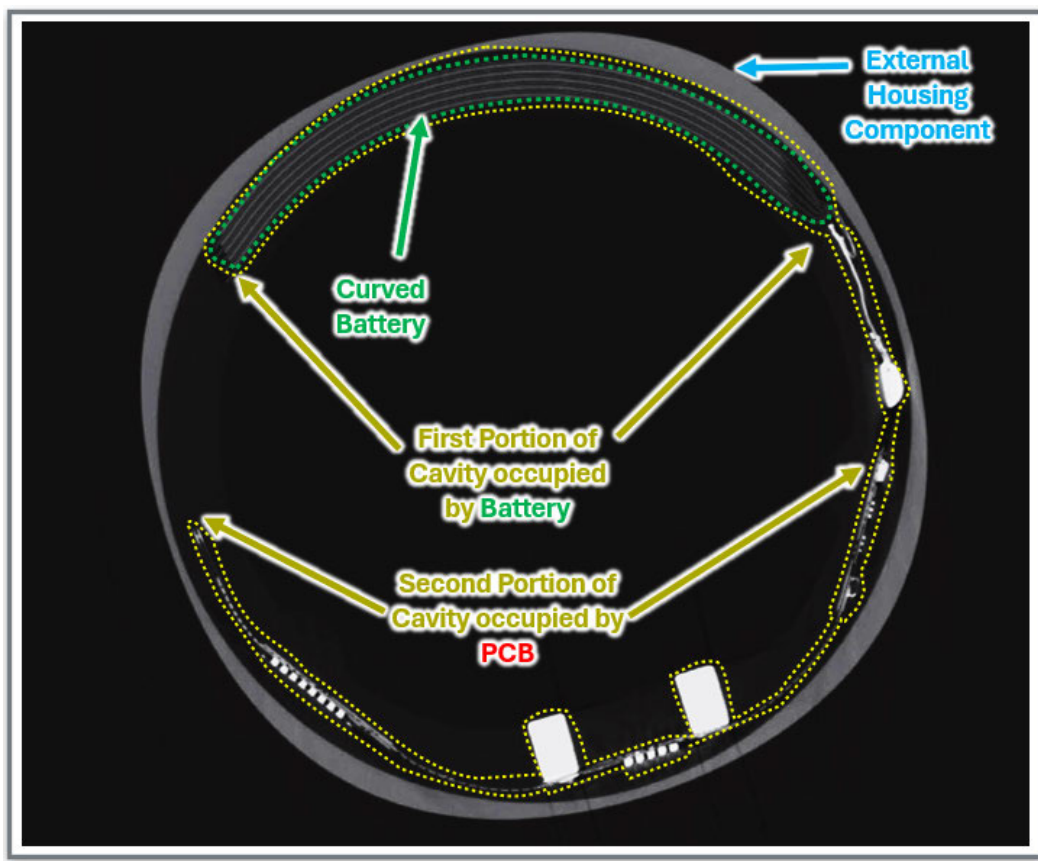
And as explained by Dr. Sarrafzadeh, because the rings do not have a display, the acquired data goes hand-in-hand with a corresponding Ultrahuman App to which the data is sent to be displayed to the user. Tr. (Sarrafzadeh) at 335:15-17.

2. Dependent Claim 2

Dependent claim 2 depends from independent claim 1, and requires “wherein the first portion of the cavity of the finger-worn wearable ring device is non-overlapping with the second portion of the cavity of the finger-worn wearable ring device.” JX-0001 at 45:9-14. Both RingConn and Ultrahuman Accused Products practice this limitation.

a. RingConn Accused Product

RingConn Accused Product includes the first portion of the cavity of the finger-worn wearable ring device that occupies the battery which is non-overlapping with the second portion of the cavity that occupies the printed circuit board and other components as shown below. Tr. (Sarrafzadeh) at 339:23-341:8; CX-0065. As shown below, the battery and PCB each occupy a different portion of the cavity of the ring in a non-overlapping (or non-stacking) configuration:

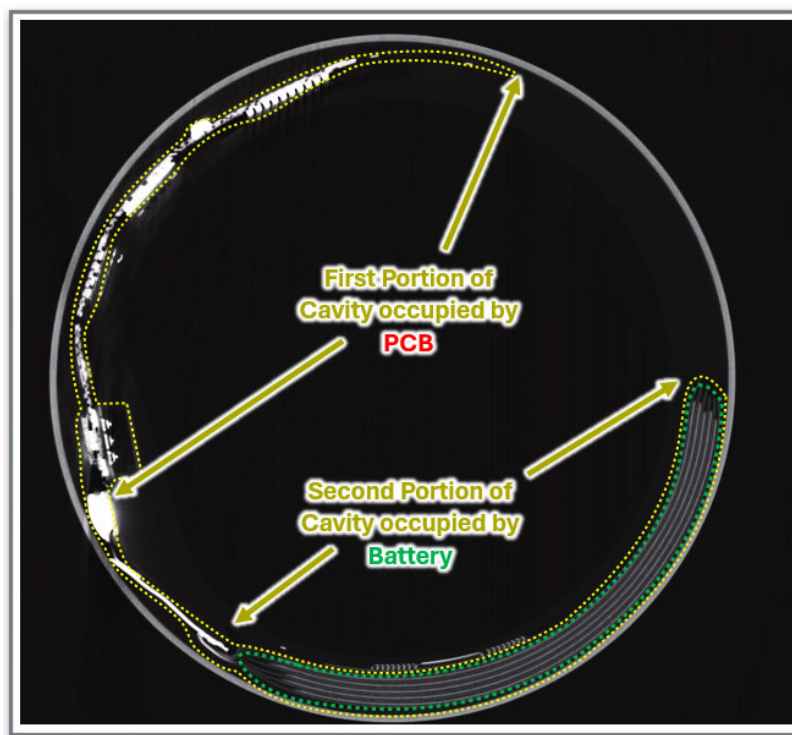


CX-0065

At the evidentiary hearing, the only non-infringement opinion offered with respect to claim 2 by Respondents' expert, Alarcon, was limited to "cavity." Tr. (Alarcon) at 921:12-15 ("For claim 2, there is no cavity . . . therefore, there can be no first and second portions of cavity."); RDX-0001C-57. Therefore, RingConn's argument as to dependent claim 12 fails for the same reason it fails for independent claim 1.

b. Ultrahuman Accused Product

Ultrahuman Accused Product includes the first portion of the cavity of the finger-worn wearable ring device that occupies the battery which is non-overlapping with the second portion of the cavity that occupies the printed circuit board and other components as shown below. Tr. (Sarrafzadeh) at 341:9-17; CX-0056. As shown below, the battery and PCB each occupy a different portion of the cavity of the ring in a non-overlapping (or non-stacking) configuration:



CX-0056

In contrast to RingConn, at the evidentiary hearing, Respondents' expert, Alarcon, did not

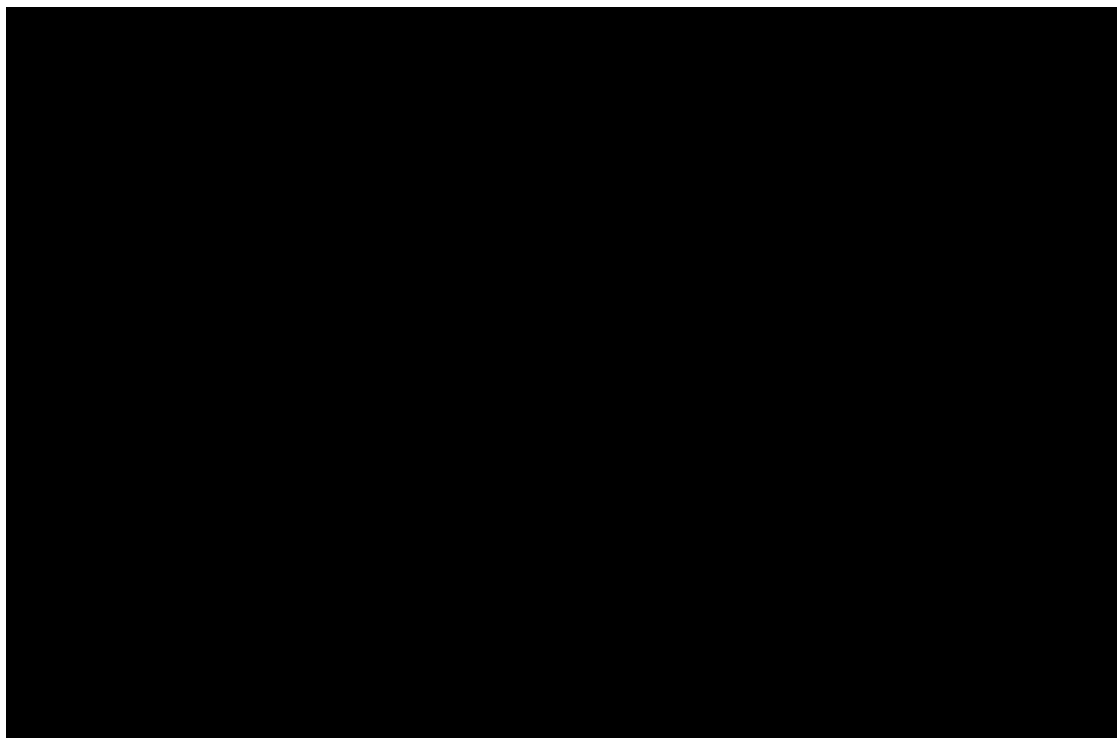
dispute that Ultrahuman Accused Product infringes dependent claim 2. *See* Tr. (Alarcon) at 960:4-21 (For Ultrahuman, Alarcon offering non-infringement opinions as to only claim 1 and dependent claim 12); RDX-0001C-89. Thus, for reasons discussed above, Ultrahuman Accused Product infringes dependent claim 1.

3. Dependent Claim 12

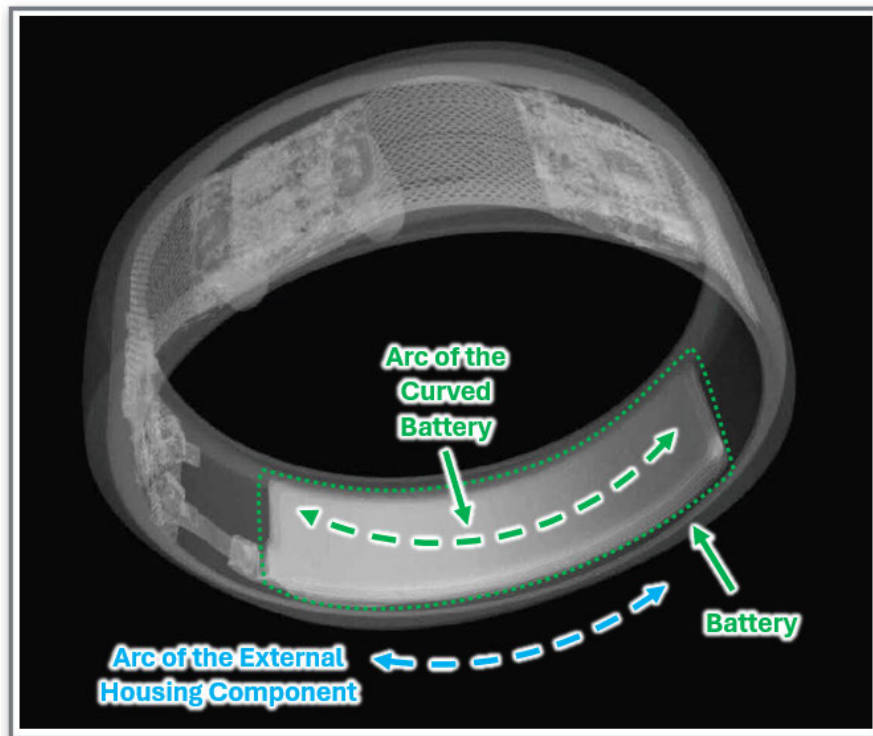
Dependent claim 12 depends from independent claim 1, and requires “wherein the battery comprises a curved battery, wherein an arc of the curved battery approximates a corresponding arc of the external housing component.” JX-0001 at 46:21-24. Both RingConn and Ultrahuman Accused Products practice this limitation.

a. RingConn Accused Product

RingConn Accused Product includes a battery that RingConn classifies as an “**Arc-shaped battery**” that has an arc that approximates a corresponding art of the **external housing component**. Tr. (Sarrafzadeh) at 343:5-344:8; CX-0647C; CX-0070.



CX-0647C



CX-0070

At the evidentiary hearing, Respondents' expert, Alarcon, did not dispute that RingConn Accused Product meets this limitation, but only criticized Dr. Sarrafzadeh for not showing the same was true for each ring size. Tr. (Alarcon) at 921:16-21 ("for claim 12, Dr. Sarrafzadeh only analyzes one size of the RingConn ring product" and because RingConn Accused Product includes multiple ring sizes, Alarcon argued that "by necessity, they all have different arcs. They all have different radius of curvature. So, therefore, there are a number of different permutations and sizes. And [Dr. Sarrafzadeh] has not done the analysis to show that all of the arcs approximate the arcs - the corresponding arcs of the housing."). But on cross examination, Mr. Alarcon could not identify a single ring size that he analyzed where an arc of the curved battery in RingConn Accused Product did not approximate a corresponding arc of the external housing component. *Id.* at 1113:10-1114:23 ("I think it is fair to say they are close And if that's what 'approximates' means, then I would say yes" the arcs of all curved batteries approximates the arc of the external

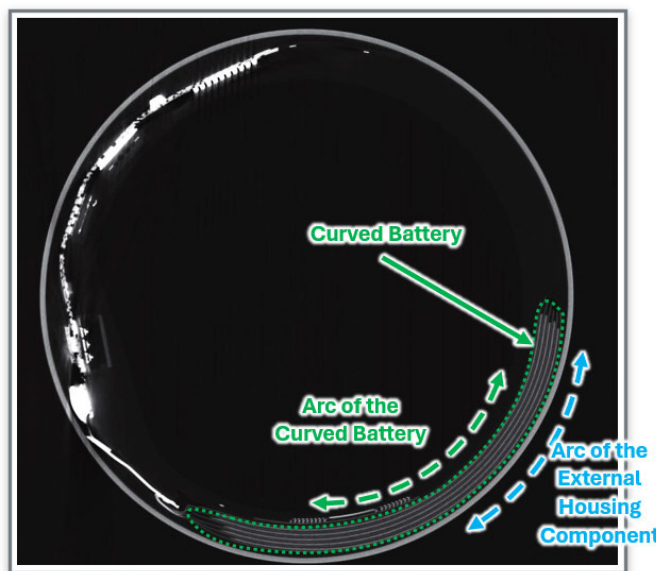
housing component.)

In addition, Alarcon agreed that the Respondents' corporate witness's testimony supported the contention that all sizes of the accused rings would meet claim this limitation. *Id.* at 1116:15-18 ("I think the batteries fit between the surfaces I mentioned, so I think they may -- and this testimony appears to support that.").

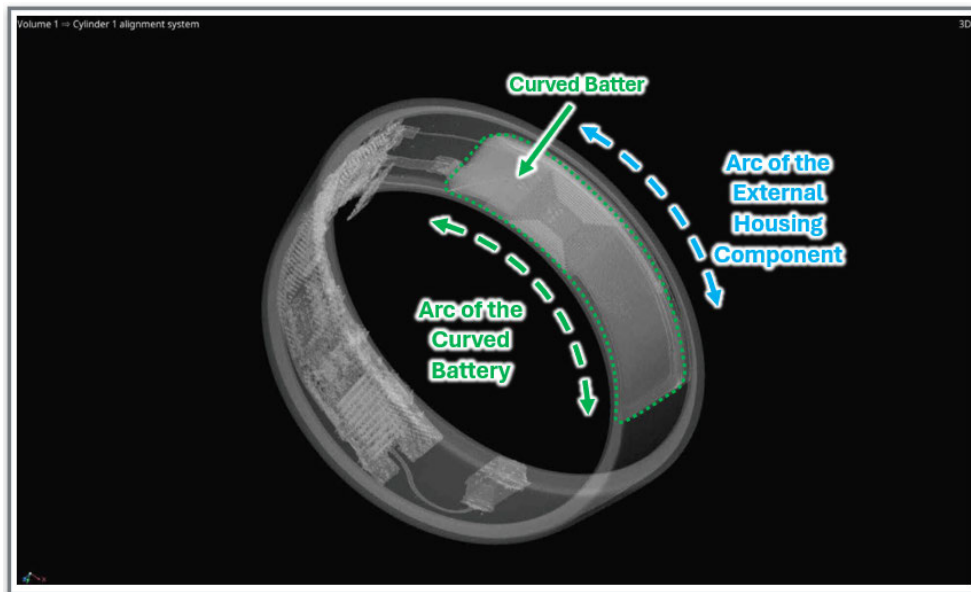
And finally, Alarcon's non-infringement position is contradictory to the stipulation that parties entered in this Investigation where with "respect to claims 1, 2, 12-14, 17, and 18 of the '178 patent, RingConn's Gen 1 Smart Ring is representative of RingConn's second generation or Gen 2 Smart Ring such that a finding of infringement or non-infringement by one generation of Representative Accused Product shall be construed as infringement or not-infringement by *all size variations* of both Representative Accused Products." JX-0008C.0002.

b. Ultrahuman Accused Product

Ultrahuman Accused Product also has a **curved battery**, wherein an arc of the curved battery approximates a corresponding arc of the **external housing component**. Tr. (Sarrafzadeh) at 344:9-19; CX-0056; CX-0059.



CX-0056



CX-0059

At the evidentiary hearing, Respondents' expert, Alarcon, could not identify a single ring size that he analyzed where an arc of the curved battery in Ultrahuman Accused Product did not approximate a corresponding arc of the external housing component. Tr. (Alarcon) at 1113:10-1114:23.

In addition, Alarcon agreed that Ultrahuman's corporate witness's testimony supported the contention that all sizes of the accused rings would meet claim this limitation. *Id.* at 1115:20-21 ("I don't have any reason to doubt--that's what I mean by apart from size, they shouldn't look any different.").

4. Dependent Claims 13 and 14

Dependent claim 13 depends from independent claim 1, and requires "wherein the one or more sensors comprise a first light-emitting component configured to emit light associated with a first wavelength, and a second light-emitting component configured to emit light associated with a second wavelength different from the first wavelength." JX-0001 at 46:25-30.

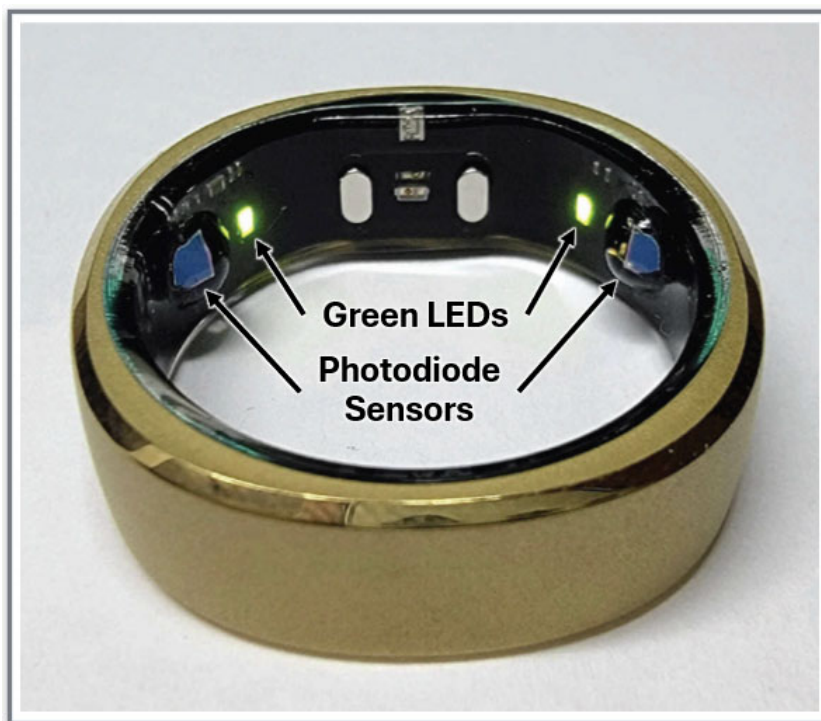
Dependent claim 14 further depends from claim 13, and requires "wherein the first

wavelength is associated with visible light, and wherein the second wavelength is associated with the infrared light.” *Id.* at 46:31-34.

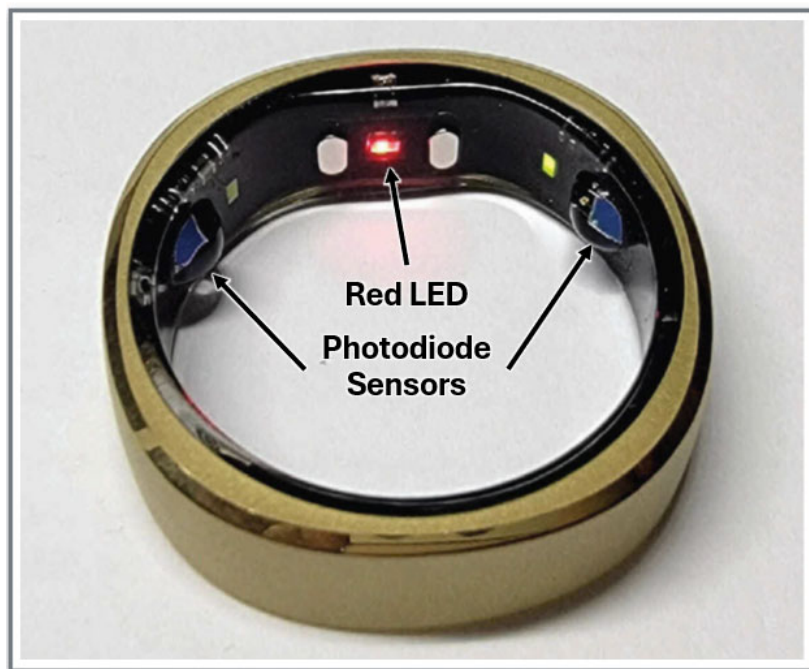
Both RingConn and Ultrahuman Accused Products practice limitations of dependent claims 13 and 14.

a. RingConn Accused Product

RingConn Accused Product includes one or more sensors that comprise a first light emitting component configured to emit light associated with a first wavelength, and a second light emitting component configured to emit light (Claim 13), and further wherein the first wavelength is associated with visible light, and wherein the second wavelength is associated with the infrared light (Claim 14). Tr. (Sarrafzadeh) at 345:12-347:3; CX-0403; CX-0404; CX-0405. Indeed, RingConn Accused Product includes red, green, and infrared LEDs that each have a different wavelength and the light emitted by the light sources is reflected from the user’s tissue and detected by a plurality of photodiodes that use the detected light to acquire data regarding the user:



CX-0403



Red LED
Photodiode
Sensors

CX-0404



Infrared Sensor

CX-0405

At the evidentiary hearing, Respondents' expert, Ramon Alarcon, offered no opinions

rebutting Dr. Sarrafzadeh' s infringement analysis of dependent claims 13-14 as for RingConn Accused Product. *See* RDX-0001C-57 (Alarcon addressing non-infringement as to only Claim 1, 2, and 12).

b. Ultrahuman Accused Product

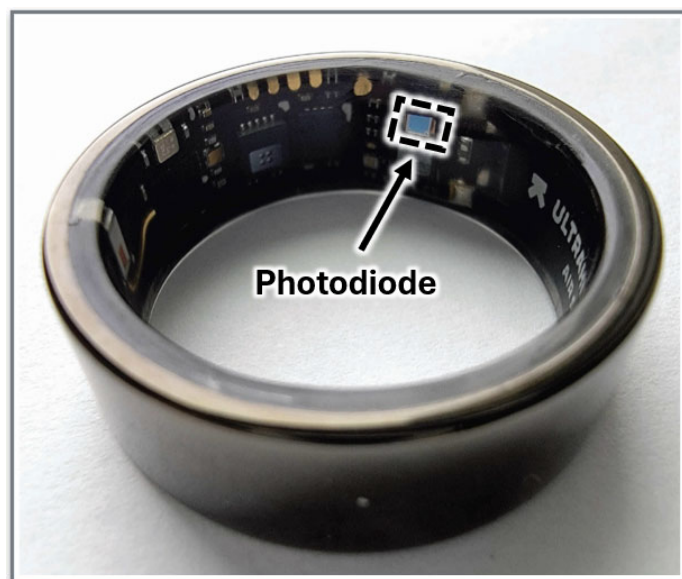
Ultrahuman Accused Product, the one or more sensors comprise a first light emitting component configured to emit light associated with a first wavelength, and a second light emitting component configured to emit light (Claim 13), and further wherein the first wavelength is associated with visible light, and wherein the second wavelength is associated with the infrared light (Claim 14). Tr. (Sarrafzadeh) at 347:4-15. Indeed, RingConn Accused Product includes red, green, and infrared LEDs that each have a different wavelength and the light emitted by the light sources is reflected from the user's tissue and detected by a plurality of photodiodes that use the detected light to acquire data regarding the user:



CX-0312



CX-0313



CX-0314

At the evidentiary hearing, Respondents' expert, Ramon Alarcon, offered no opinions rebutting Dr. Sarrafzadeh's infringement analysis of dependent claims 13-14 as to Ultrahuman. *See* RDX-0001C-59 (Alarcon addressing non-infringement of Ultrahuman Accused Product as to only Claim 1 and 12).

C. Respondents’ Non-Infringement Theories Are Based on Previously Rejected Claim Construction Theories and Should Be Rejected

Respondents argue that the Accused Products do not meet the “internal housing component,” “between,” “cavity,” and “circumferential” limitations. However, each of these theories are simply repackaged arguments based on claim construction theories already rejected by the Court.

1. Respondents’ arguments on the “internal housing component,” “between,” and “cavity” limitations seek to exclude potting material from the ‘178 patent.

In the *Markman* decision, the Court found that “These disclosures in the specification *unambiguously support* that the internal and external housing components may comprise potting material.” JX-0011 at JX-0011.0012 (emphasis added). Contrary to that Order, Respondents’ noninfringement theories related to the “internal housing component,” “between,” and “cavity” limitations all rely on a position that “potting material” cannot be used as the internal housing component. Respondents argue that potting material is not an “enclosing structure” and therefore cannot be the internal housing component. Respondents argue that a cavity cannot be formed within potting material because potting material “fills the space.” Respondents argue that PCB cannot be disposed “between” an internal housing component formed of potting material because potting material “fills the space” around the PCB and battery. Tr. (Alarcon) at 912:6-913:6; *id.* at 1044:16-23; *id.* at 913:7-22; *id.* at 913:7-22; *id.* at 820:16-821:3.

These repackaged arguments are all based on the inherent characteristics of potting material, and if accepted, revive the previously rejected claim interpretations advanced by the Respondents that the internal housing component “encloses, rather than fills, space” and is “comprised of non-potting material.” JX-0001 at 6. These arguments have no merit as the ‘178 patent expressly discloses the use of potting material as the internal housing component (as the

Court has acknowledged), and includes several illustrative embodiments (e.g., Fig. 13) that look exactly like the Respondents' products.

In supporting these theories, Respondents' expert takes the untenable position that the '178 patent discloses that the internal housing component can be potting material, but NONE of the illustrative embodiments use potting material as the internal housing component. *Cf.* Tr. (Alarcon) at 1044:16-18 ("my understanding is [the] internal housing component, according to the construction, can be made of potting."); *id.* at 1038: 4-7 ("I have looked and I have not seen any that use internal potting material as an -- as an internal housing component and, therefore, with respect to that limitation, embody claim 1.").

Not surprisingly, Respondents' expert struggled to support such theories that run counter to the '178 patent. Alarcon could not explain why potting material that covers, encapsulates, and seals is not an "enclosing structure." Tr. (Alarcon) at 1026:15-1031:19. He could not explain why the battery in the accused products did not occupy a cavity within the potting material. *Id.* at 1128:1-14. He did not deny that the cavity and PCB are disposed between a layer of potting material and the outer ring. *Id.* at 1057:16-18 ("between that arbitrary layer and the outer, yes, there is a printed circuit board between there"); *id.* at 1059:1-2 ("the battery would be between")

With respect to the "between" limitation, Alarcon contended that potting completely surrounded the printed circuit board, but the evidence does not support that conclusion. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Tr. (Sarrafzadeh) at 311:20-312:3. RingConn's corporate witness admitted to the application of adhesive. Tr. (Wu) at 748:3-749:5. As did Ultrahuman's corporate witness. Tr. (Kumar) at 644:21-22 ("We do have an insulator tape as well as an adhesive tape as well.").

Alarcon also agreed that a glue is applied to the battery “to also tack that down.” Tr. (Alarcon) at 1118:4-13. Indeed, the teardowns show the battery and sections of the PCB pressed up against the outer ring. *See* CX-1046; CX-1088; CX-1077. This is the reason insulating tape is needed, to prevent short circuits when the PCB contacts the outer ring. Tr. (Sarrafzadeh) at 448:12-17; Tr. (Alarcon) at 1119:21-23; Tr. (Kumar) at 648:23-649:4.

Dr. Sarrafzadeh explained that there is an engineering rationale for this process: “you want the product to be consistent from one to the next. If you don’t glue this to the back, PCB board is going to move around. That’s not good engineering practice because one ring is going to be different from another ring . . . so you glue it to the back. You wait for that to be all connected. Then you apply your internal housing component, the final potting material.” Tr. (Sarrafzadeh) at 313:2-12; *id.* at 313:13-19; *id.* at 447:1-8 (“you don’t want your battery to move, as you’re assembling. Otherwise, each ring is going to have a different property than the next one . . . Consistency is very important in engineering.”). And based on his product teardowns, Dr. Sarrafzadeh testified that he observed that the potting material did not surround the battery. *Id.* at 443:7-14. Instead, the potting material was found above the battery and around the corners, but not behind as Dr. Sarrafzadeh noted would be mechanically impossible given that the battery (and the PCB) were adhered to the external housing component to prevent the components from moving during the application of potting material. *Id.* at 443:18-444:10.

Thus, Dr. Sarrafzadeh refuted any suggestion that potting material fully surrounds the battery and PCB. *Id.* (Sarrafzadeh) at 445:5-7 (“On the side of it, on the corner, there could be some of the potting that gets into the side of it, but it will not surround the battery.”); *id.* at 16-19 (“it [potting material] will not surround the battery. It simply can’t.”); *id.* at 449:5-10; *id.* at 450:13-20. Respondents’ expert confirmed Dr. Sarrafzadeh’s findings. Tr. (Alarcon) at 1119:21-1120:1;

1121:21-1122:4 (identifying the black adhesive tape and mylar as the materials between the PCB and the external housing component).

2. Respondents’ arguments on “circumferential” also rely on their rejected claim construction arguments.

During the *Markman*, Respondents sought a construction that “circumferential” means “circular, ovular, or elliptical.” JX-0011 at JX-0011.0014. And in response to the ALJ’s question at the *Markman* hearing, the Respondents insisted that “circular” required a closed shape:

JUDGE JOHNSON HINES: For circular, ovular, elliptical, is it correct that Respondents’ construction is that the claim requires a closed shape?

MR. BREETZ: Yes, Your Honor. And that closed shape needs to have a circumference.

Markman Hr’g Tr. at 82:5-9.

The *Markman* Order rejected Respondents’ construction. JX-0011 at JX-0011.0016 (“The evidence supports that ‘circumferential’ has its plain and ordinary meaning and does not require a closed shape.”). Undeterred, at the hearing, Alarcon argued that “the construction says plain and ordinary but doesn’t - - doesn’t require a closed shape. Here we have a closed shape. So I wouldn’t characterize just [a] portion as a circumferential.” Tr. (Alarcon) at 1059:10-13; *id.* at 1061:6-10 (“This ring is closed. My understanding is, you know, if it was open, that would be something different, but here we have a closed ring. And so this would not meet the requirement of being a circumferential surface.”). And based on his misunderstanding of the *Markman* Order, Alarcon insisted that the “circumferential surface” must refer to the entirety of the ring surface and any deviations means that “circumferential” surface limitation is not met:

Q. I started this questioning off by identifying a portion of the inner surface of the ring as a circumferential surface. And you’re saying that it’s not?

A. I believe circumference has a meaning. And when it’s a

closed - - when it's - - if it is closed, it's to be - - it's the all the way around, and I've adopted that it has to be curved.

Q. Okay. Did the Court say it has to be all the way around?

A. The Court's construction, if I recall, is plain and ordinary meaning, but not necessarily closed. But here we have a closed surface. So I'm evaluating that surface.

Id. at 1062:16-1063:2.

But as Complainants have consistently indicated, “circumferential” refers to only the curved portion of the ring and “does not exclude additional elements in a finger-worn wearable ring device, such as flat surfaces.” Oura’s Responsive Claim Construction Br. (EDIS Doc ID 829204) at 8; *id.* (“at least a part of the device (i.e., ring) must include a curved housing component, but the curvature is not required for every part of the ring.”). And in terms of claim 1 of the ‘178 patent, only battery is required to be within the circumferential portion. JX-0001 at 44:57-65 (“the battery comprises a shape and size configured to fit within the cavity between the *outer circumferential surface* of the external housing component and the *inner circumferential surface* of the internal housing component”).⁵ Thus, Respondents’ continued insistence that “circumferential” refers to entire ring is contrary to the Court’s Order and any non-infringement arguments based on the circumferential aspect should be rejected.

⁵ Other components can be within circumferential surface but the claim does not require it.

D. Oura's Technical Domestic Industry

Oura satisfies the “technical prong” of § 1337(a)(2)’s domestic industry requirement because Oura Ring Gen. 3, Oura Ring Gen. 4, and corresponding Oura App practice each of claims 1, 2, and 12-14 of the ‘178 patent as shown below.

1. Independent Claim 1

a. Limitation 1 [Pre]

The preamble of the claim 1 requires “a finger-worn wearable ring device.” JX-0001 at 44:45-46. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

(i) Oura Ring Gen. 3

Oura Ring Gen. 3 is a finger-worn wearable ring device for both the Horizon and Heritage variations. Tr. (Sarrafzadeh) at 262:3-9.

**Oura Ring Gen. 3
(Horizon)**



CX-0174

**Oura Ring
(Heritage)**



CX-0142

As noted above, while Oura Ring Horizon is an uninterrupted design that has near round exterior for the full length, the Heritage variation includes a minor plateau design on the exterior for a portion of the ring as shown above. Tr. (Sarrafzadeh) at 254:25-255:9. Outside of the external

aesthetic structure for part of the ring, both styles have the same technical and hardware capabilities and are finger-worn wearable ring devices. *Id.*

(ii) Oura Ring Gen. 4

The Oura Ring Gen. 4 is also a finger-worn wearable ring device because it is shaped and sized to fit a user's finger similar to the Oura Ring Gen. 3. *Id.* at 262:3-9.



CX-0667; CPX-0012

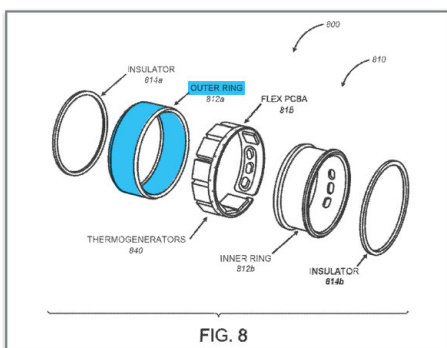
b. Limitation 1[a]

Limitation 1[a] requires “an external housing component defining an outer circumferential surface of the finger-worn wearable ring device.” JX-0001 at 44:46-48. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

(i) Oura Ring Gen. 3

Both variations of Oura Ring Gen. 3 (i.e., Horizon and Heritage) include an **external housing component** defining an **outer circumferential surface** of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 269:23-271:7; CX-0040C; CX-0174; CX-0142; CDX-003C.38-40. As explained by Dr. Sarrafzadeh, with reference to below figures that includes side-by-side

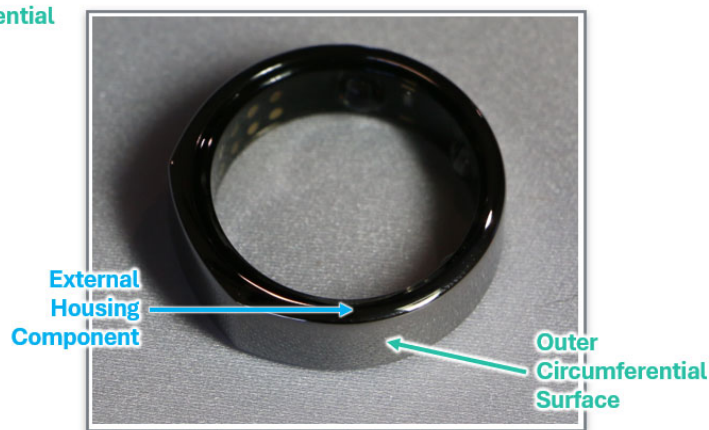
comparison of '178 patent and Oura's own depiction of the DI product, and image of the Oura Ring Gen. 3 (both variations), the external metal structure of the ring is the **external housing component** and the **outer circumferential surface** is the curved surface that is visible when the user is wearing the ring. Tr. (Sarrafzadeh) at 269:23-271:7.



'178 Patent (JX-0001) at Fig. 8
(Annotated)



CX-0040C (Annotated)⁶

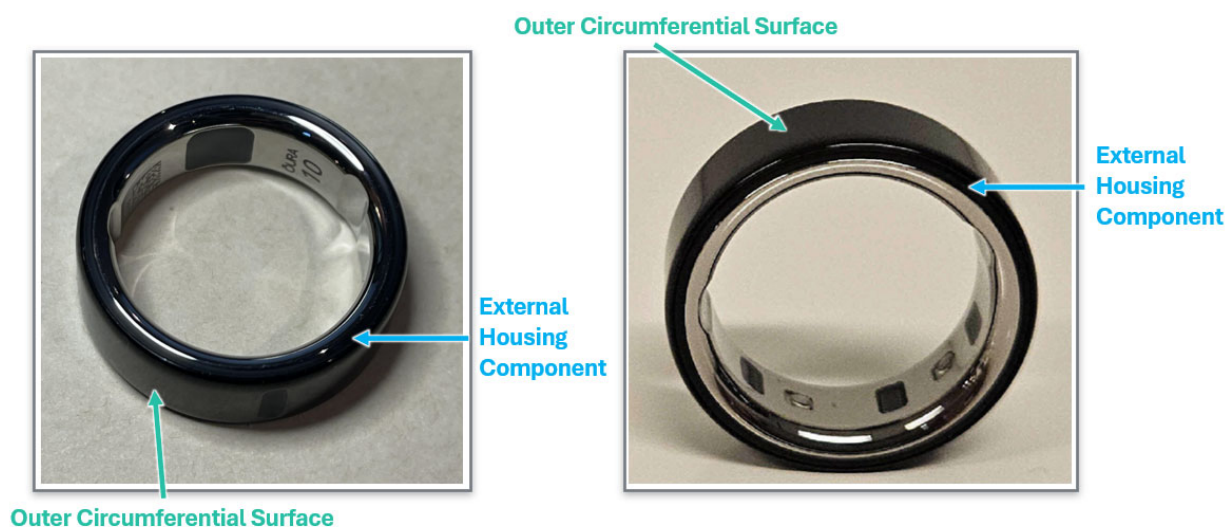


CX-0174 (Horizon); CX-0142 (Heritage)

⁶ At the hearing, while RingConn sought to minimize their own marketing materials, Dr. Sarrafzadeh explained that his analysis was confirmed with his product imaging, CT scans, product teardowns, and independent analysis. Tr. (Sarrafzadeh) at 264:5-20.

(iii) **Oura Ring Gen. 4**

Oura Ring Gen. 4 also includes include an **external housing component** defining an **outer circumferential surface** of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 271:8-16; CX-0699C; CPX-0012; CX-0667; CDX-0003C.41-42. As explained by Dr. Sarrafzadeh, with reference to below figures, the external metal structure of the ring is the **external housing component** and the **outer circumferential surface** is the curved surface that is visible when the user is wearing the ring:



CX-0699C; CPX-0012; CX-0667.

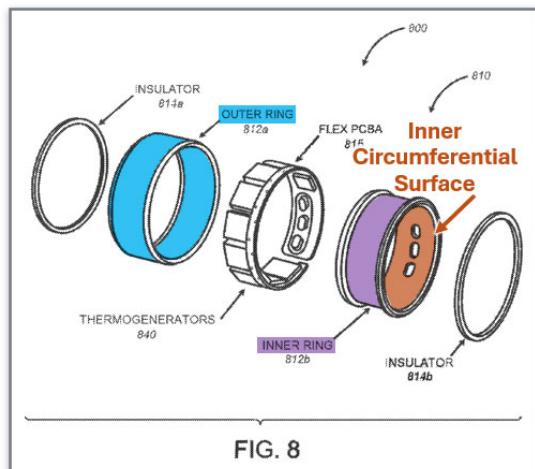
c. **Limitation 1[b-i]**

Limitation 1[b-i] requires “an internal housing component defining an inner circumferential surface of the finger-worn wearable ring device.” JX-0001 at 44:49-51. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

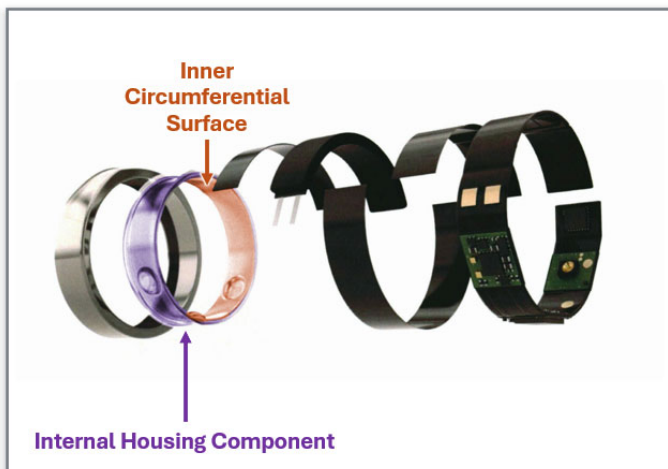
(i) **Oura Ring Gen. 3**

Oura Ring Gen. 3 includes an **internal housing component** defining an **inner circumferential surface** of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 279:16-

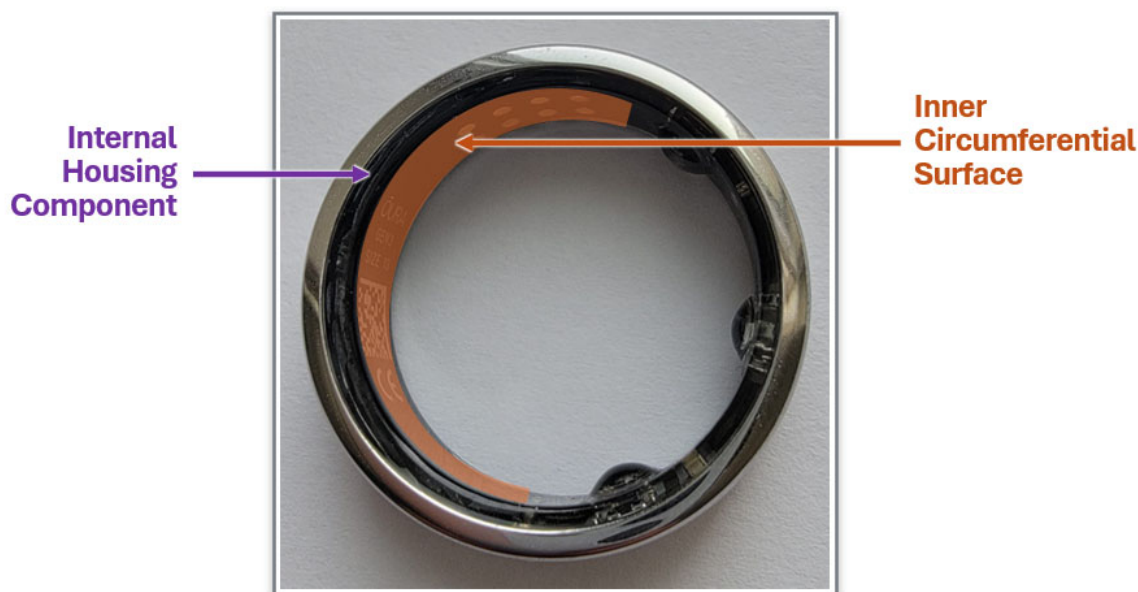
280:8; CX-0176; CX-0040C; CDX-0003C.51-53.⁷ As shown below with reference to Oura's own depiction of the DI product against Fig. 8 of the '178 patent, and product images, Oura Ring Gen. 3 includes an **internal housing component** that is a structure formed from cured epoxy (i.e., potting material) which includes a curved surface that touches the user's finger when worn, thus includes an **inner circumferential surface**:



JX-0001



CX-0040C at 0:04-0:05



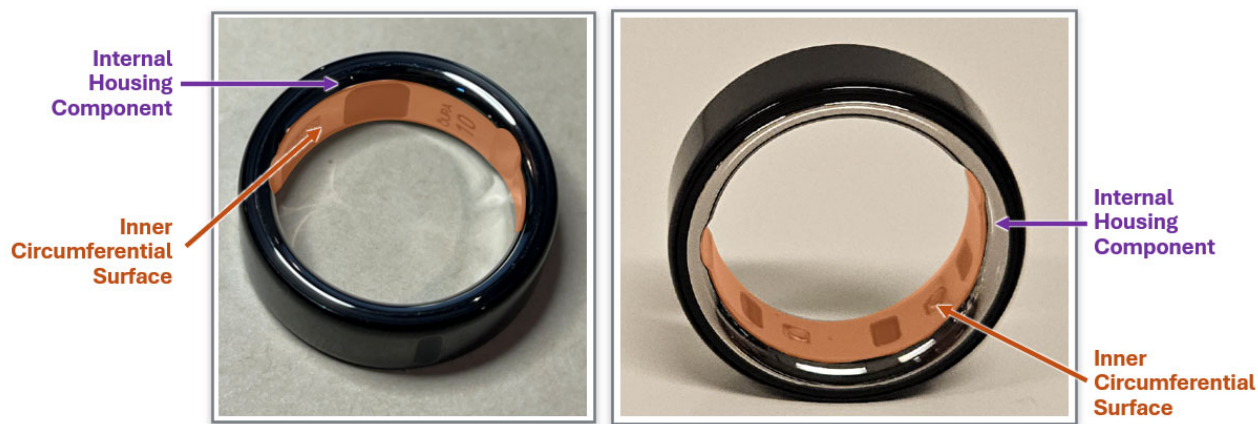
CX-0176

⁷ Because the only difference between Horizon and Heritage versions of Oura Ring Gen. 3 is the aesthetic exterior of the external housing component, for the sake of brevity the analysis for the remaining limitations will not separately address each of the two versions.

Thus, as shown above, the internal housing component is the layer of potting material that covers the battery and PCB, forms a seal with the external housing component, and defines the inner circumferential surface of the ring. Tr. (Sarrafzadeh) at 279:16-280:8; Tr. (Alarcon) at 1026:15-23 (“I think it’s fair to say that when potting material surrounds the components, it seals them” and “covers” them); *id.* at 1027:5-12; *id.* at 1028:1-2 (“Potting material forms the inner surface of the ring”).

(ii) **Oura Ring Gen. 4**

Oura Ring Gen. 4 also includes an **internal housing component** defining an **inner circumferential surface** of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 280:9-21; CX-0699C; CX-0667; CPX-0012; CDX-0003.54-55. In contrast, to the Oura Ring Gen. 4 where the internal housing component is made of potting material, the Gen. 4 internal housing component is made of metallic material. And the inner surface of the Oura Ring Gen. 4 includes a curved surface that touches the surface of user’s finger which is the **inner circumferential surface**:



CX-0699C; CX-0667; CPX-0012

Respondents’ expert, Alarcon, also conceded that Oura Ring Gen. 4 has an internal housing component that satisfies even his interpretation of a structure that encloses space. Tr. (Alarcon) at 962:2-7 (So for the Gen. 4 ring, it actually does have a metal inner band. And Dr. Sarrafzadeh

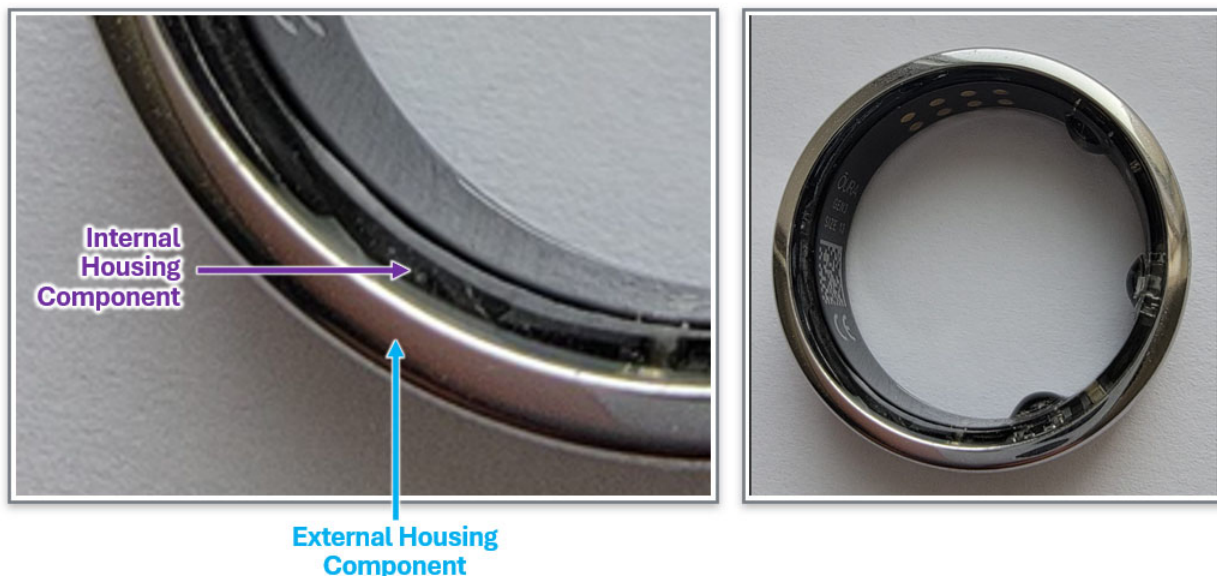
identifies that. So in the case of the Gen. 4, there are two metal structures. And so the definition - or his identification of the internal housing component is different, which is fine for the Gen. 4.”).

d. Limitation 1[b-ii]

Limitation 1[b-ii] requires “the internal housing component coupled with the external housing component.” JX-0001 at 44:51-52. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

(i) Oura Ring Gen. 3

Oura Ring Gen. 3 includes the **internal housing component** coupled with (i.e., connected with) the **external housing component**. Tr. (Sarrafzadeh) at 283:14-284:3; CX-0176; CDX-0003.63-64. As explained by Dr. Sarrafzadeh, the potting material that forms the internal housing component adheres to the metallic structure that is the external housing component, and therefore the internal housing and external housing components are coupled or connected together:



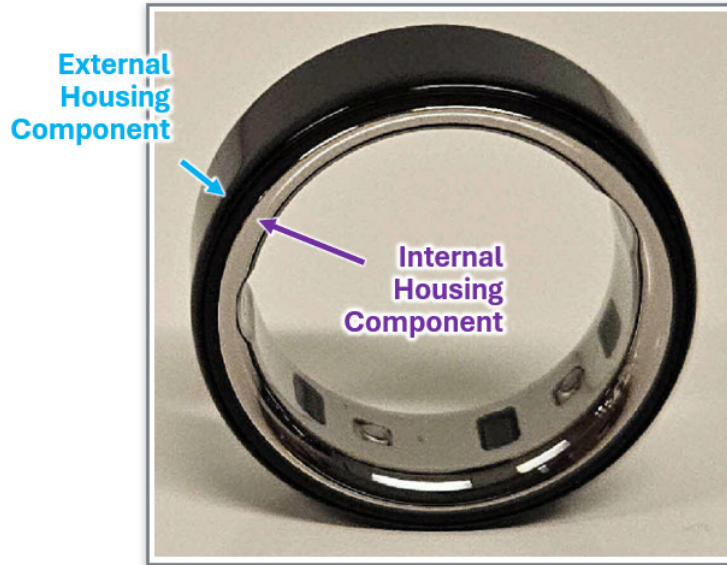
CX-0176

And Respondents’ expert, Alarcon, agreed that the potting material that forms the internal housing component adheres (connects) to the external housing component. Tr. (Alarcon) at

1030:3-8 (“I think it’s fair to say that the potting material, which is epoxy, adheres to the metal of what’s shown in these images here, which is the outer metal component.”).

(ii) Oura Ring Gen. 4

Oura Ring Gen. 4 also includes the **internal housing component** coupled with (i.e., connected with) the **external housing component**. CPX-0012; CDX-0003.66. As explained by Dr. Sarrafzadeh, the two metallic structures (i.e., external and internal housing components) are coupled together by an epoxy that is used to connect or adhere the two structures together (Tr. (Sarrafzadeh) at 284:6-15):



CPX-0012

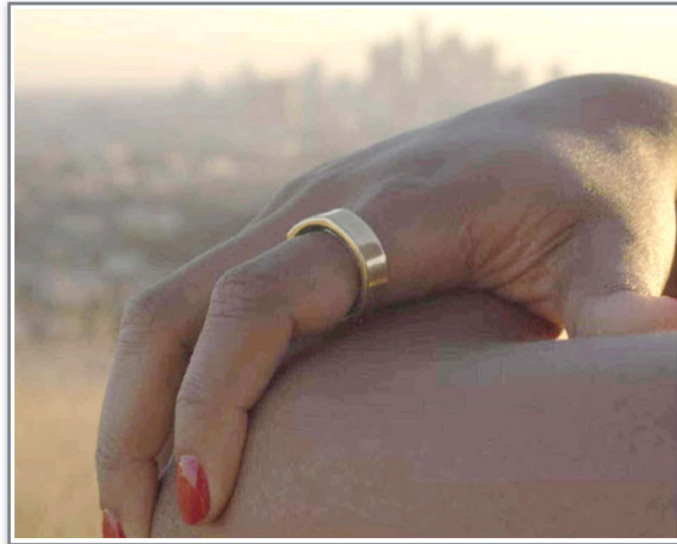
e. Limitation 1[b-iii]

Limitation 1[b-iii] requires “wherein at least a portion of the inner circumferential surface of the internal housing component is configured to contact a tissue of a user when the finger-worn wearable ring device is worn by the user.” JX-0001 at 44:52-56. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

(i) Oura Ring Gen. 3

Oura Ring Gen. 3 includes at least a portion of the inner circumferential surface of the

internal housing component that is configured to contact a tissue of a user when the finger-worn wearable ring device is worn by the user. Tr. (Sarrafzadeh) at 304:25-305:13; CX-0841; CDX-0003C.73. Indeed, as explained by Dr. Sarrafzadeh, when the Oura Ring Gen. 3 is worn by the user, at least a portion of the inner circumferential surface touches the tissue of the user which he confirmed by wearing the ring (Tr. (Sarrafzadeh) at 304:20-22):



CX-0841

(ii) Oura Ring Gen. 4

Oura Ring Gen. 4 also includes at least a portion of the inner circumferential surface of the internal housing component that is configured to contact a tissue of a user when the finger-worn wearable ring device is worn by the user. Tr. (Sarrafzadeh) at 305:14-306:4.; CX-1146; CDX-0003C.75. Indeed, as explained by Dr. Sarrafzadeh, when the Oura Ring Gen. 4 is worn by the user, at least a portion of the inner circumferential surface touches the tissue of the user which he confirmed by wearing the ring (Tr. (Sarrafzadeh) at 304:20-22):



CX-1146

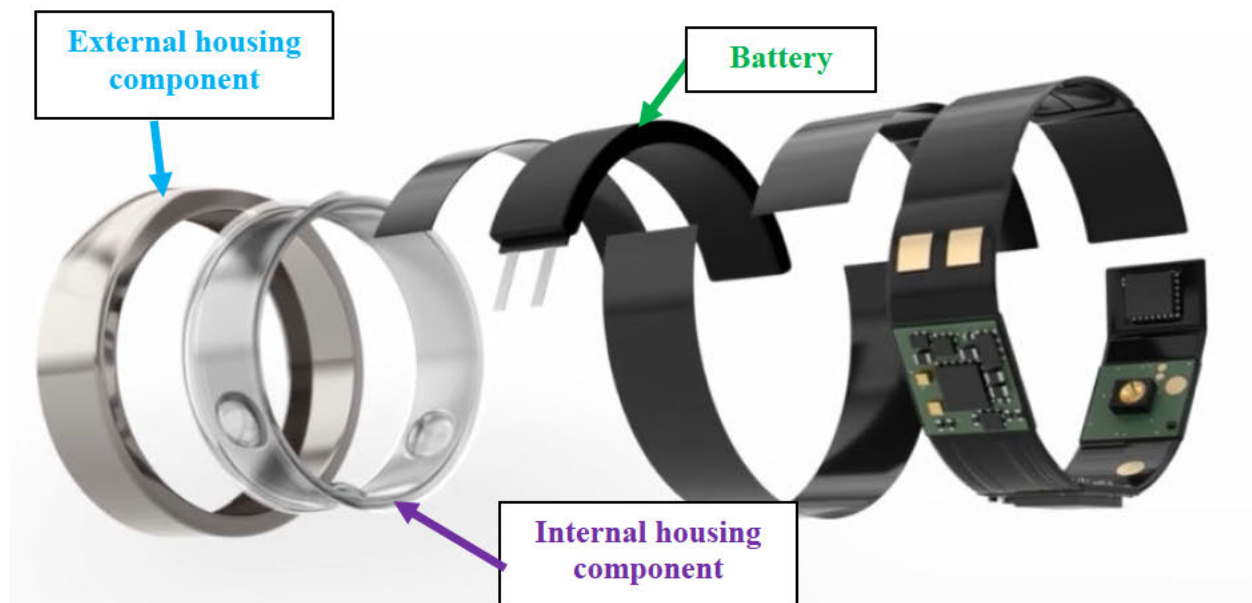
f. Limitation 1[c-i]

Limitation 1[c-i] requires “a battery positioned within a cavity formed between the internal housing component and the external housing component.” JX-0001 at 44:57-59. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

(i) Oura Ring Gen. 3

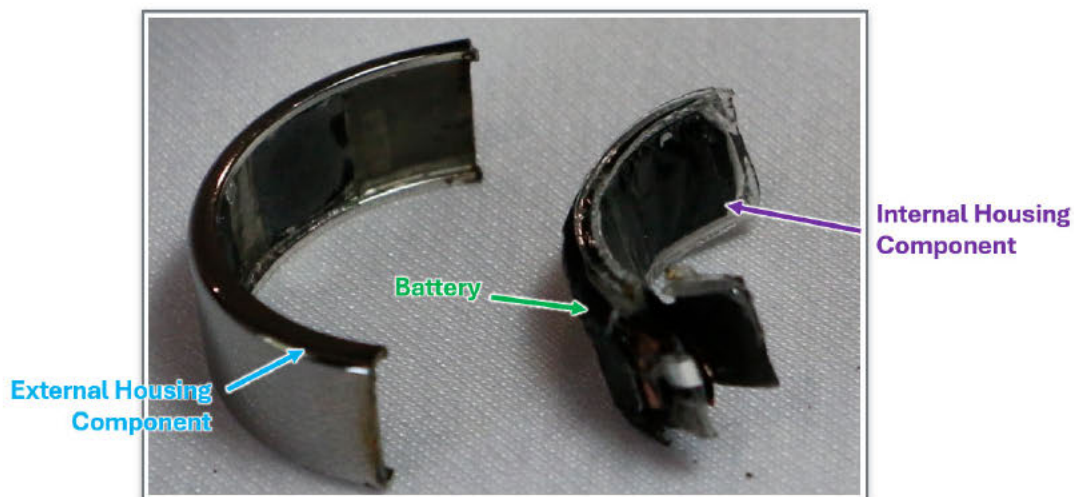
Oura Ring Gen. 3 includes a battery positioned within a cavity formed between the internal housing component and the external housing component. Tr. (Sarrafzadeh) at 316:20-318:24; CX-0040C; CX-0135; CX-0054; CX-0046; CDX-0003C.84-87.

As shown in Oura’s own marketing materials, the **battery** is positioned within the space that is created between the external metallic structure (i.e., **external housing component**) and the internal structure formed of solidified epoxy or potting material (i.e., **internal housing component**) as shown below:

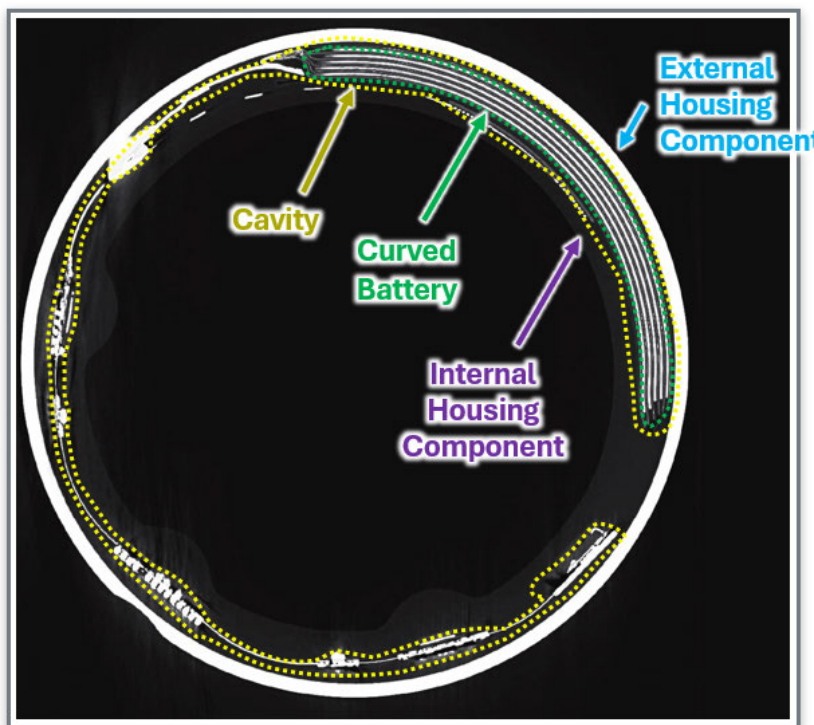


CX-0040C

Once assembled, Oura Ring Gen. 3 includes a battery positioned within a cavity *formed between the internal housing component and the external housing component*: “you see the external housing component, blue; internal, purple; and the battery goes . . . right in between the internal housing component and the external housing component.” Tr. (Sarrafzadeh) at 316:24-317:10. And the cavity is where the battery is place. *Id.* at 318:12-24 (“The cavity, I’ve shown that with a yellow dotted line around”):



CX-0135

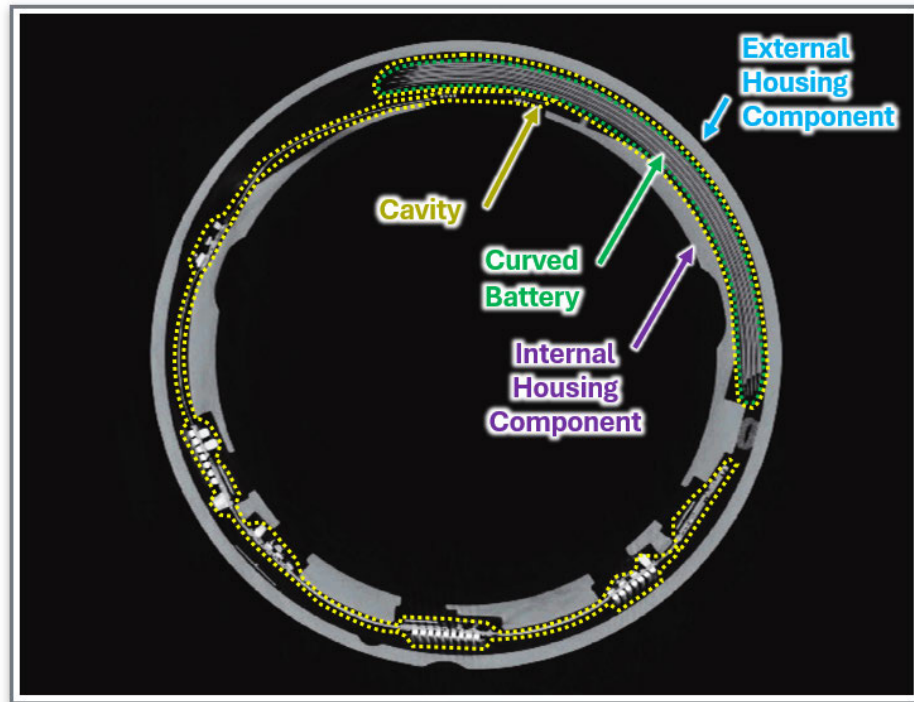


CX-0046; Tr. (Sarrafzadeh) at 318:12-24

As stated above with respect to Respondents Accused Products, Respondents' expert admitted both that the battery is formed between an internal layer of potting material and an outer ring, and that the battery takes up space within the ring. Tr. (Alarcon) at 1059:1-2 ("the battery would be between"); *id.* at 1128:1-14 ("Yes they take up space.").

(i) Oura Ring Gen. 4

Oura Ring Gen. 4 includes a battery positioned within a cavity formed between the internal housing component and the external housing component. Tr. (Sarrafzadeh) at 318:25-319:12; CX-0074C; CDX-0003C.89. As explained by Dr. Sarrafzadeh, "[t]he yellow boundary is the cavity. And the curved battery shown with a green boundary is what you see here . . . between the internal housing component and external housing component inside a cavity" (Tr. (Sarrafzadeh) at 319:8-12):



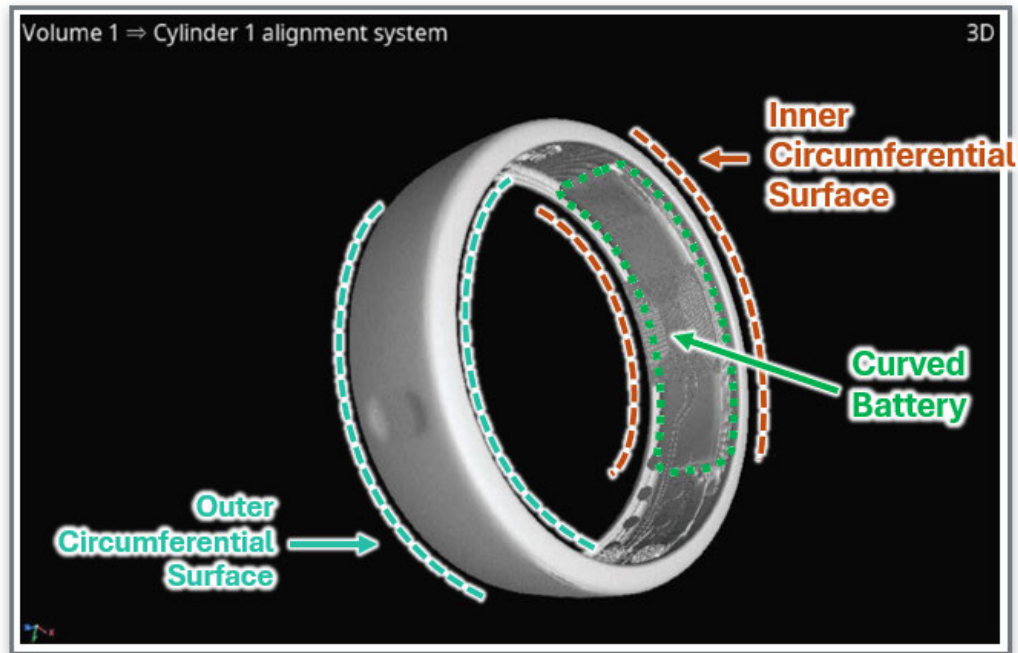
CX-0074C

g. Limitation 1[c-ii]

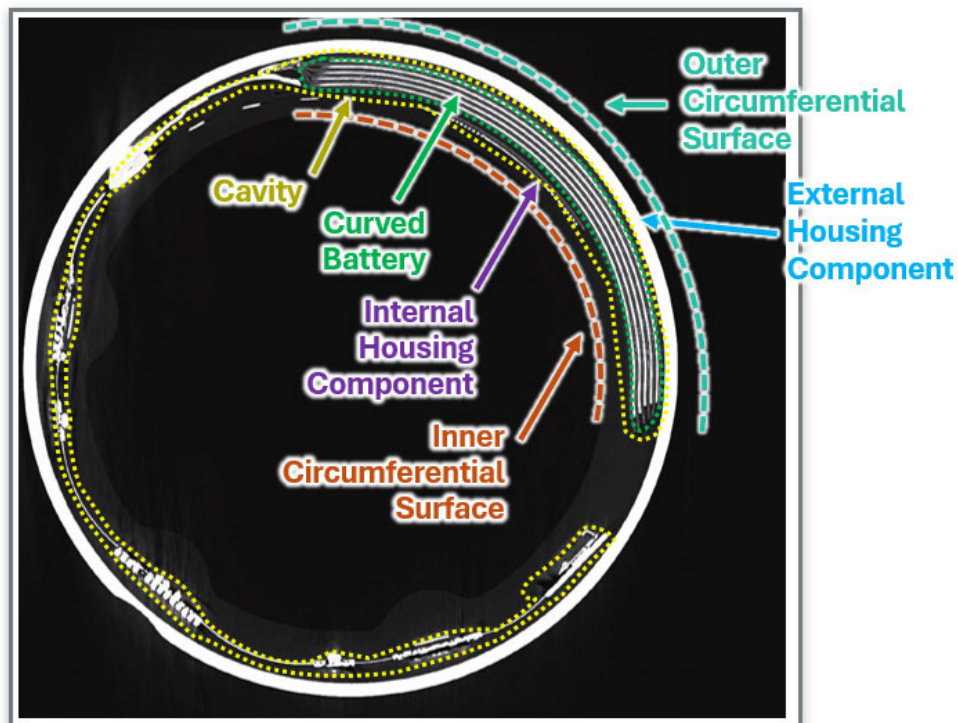
Limitation 1[c-ii] requires “wherein the battery comprises a shape and size configured to fit within the cavity between the outer circumferential surface of the external housing component and the inner circumferential surface of the internal housing component.” JX-0001 at 44:59-63. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

(i) Oura Ring Gen. 3

Oura Ring Gen. 3 includes the battery that comprises a shape and size configured to fit within the cavity between the outer circumferential surface of the external housing component and the inner circumferential surface of the internal housing component. Tr. (Sarrafzadeh) at 323:8-324:3; CX-0054; CX-0046; CDX-0003C-99.



CX-0054

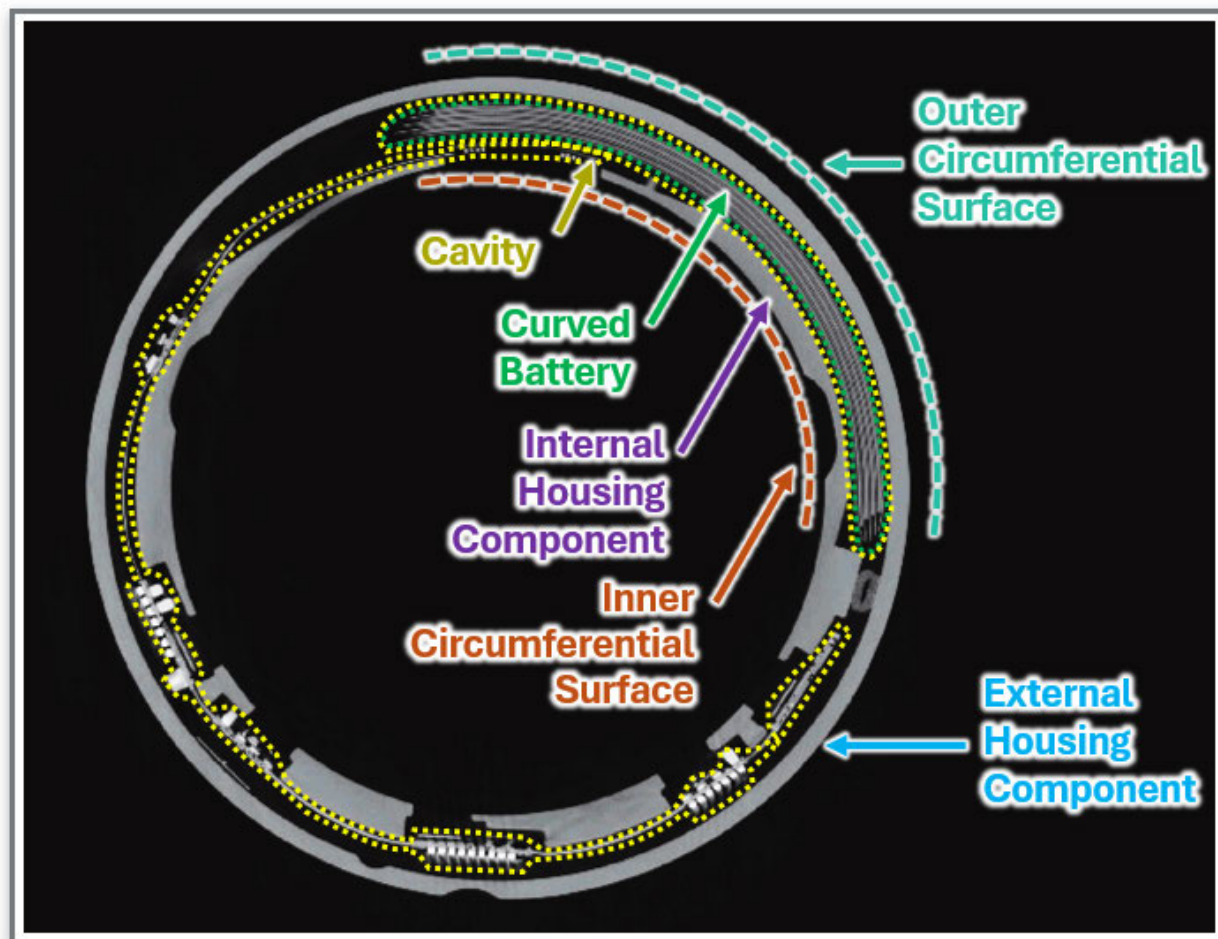


CX-0046

(ii) Oura Ring Gen. 4

Oura Ring Gen. 4 includes the battery that comprises a shape and size configured to fit within the cavity between the outer circumferential surface of the external housing component and

the inner circumferential surface of the internal housing component. Tr. (Sarrafzadeh) at 324:4-19; CX-0074C; CDX-0003C-101.



CX-0074C

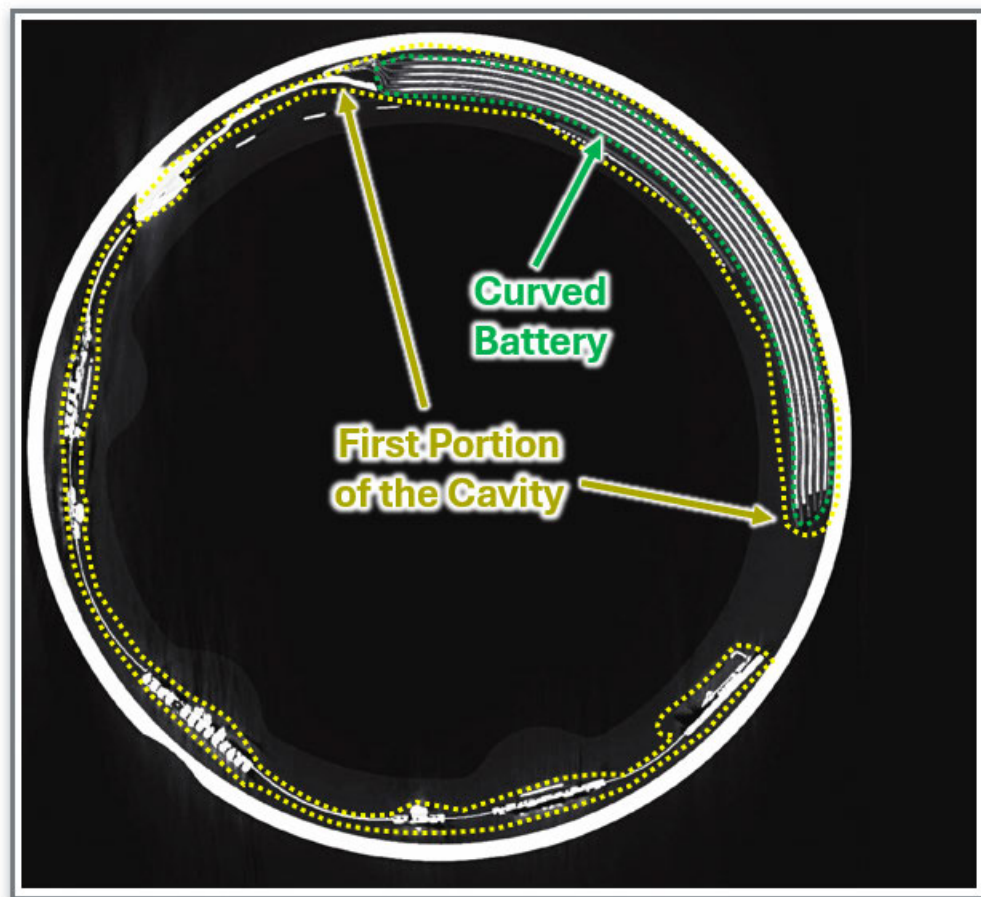
h. Limitation 1[c-iii]

Limitation 1[c-iii] requires “wherein the battery extends through a first portion of the cavity of the finger-worn wearable ring device.” JX-0001 at 44:63-65. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

(i) Oura Ring Gen. 3

Oura Ring Gen. 3 includes the battery that extends through a first portion of the cavity of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 326:2-11; CX-0046; CDX-0003C.108. Indeed, as shown below, the battery is positioned in the non-overlapping space of the ring

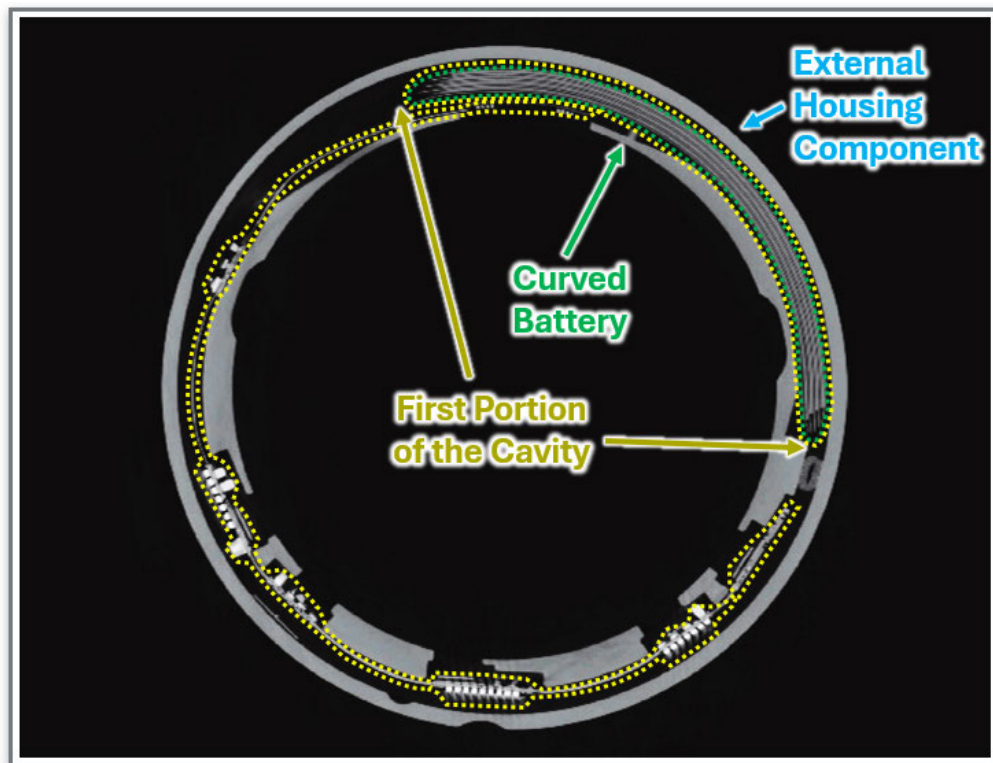
compared to the PCB, and therefore battery extends through a first portion of the cavity of Oura Ring Gen. 3:



CX-0046

(ii) Oura Ring Gen. 4

Oura Ring Gen. 4 includes the battery that extends through a first portion of the cavity of the finger-worn wearable ring device. Tr. (Sarrafzadeh) at 326:23-327:8; CX-0074C; CDX-0003C.110. Indeed, as shown below, the battery is positioned in the non-overlapping space of the ring compared to the PCB, and therefore battery extends through a first portion of the cavity of Oura Ring Gen. 4:



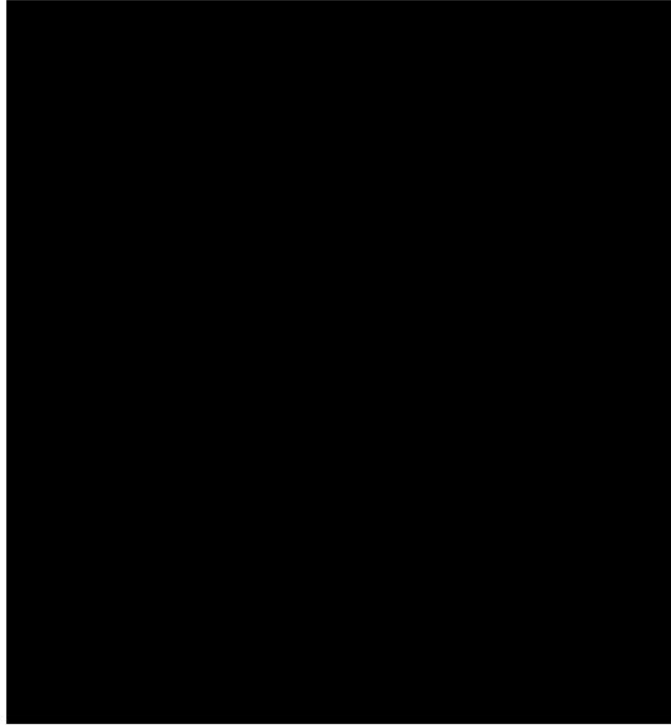
CX-0074C

i. Limitation 1[d]

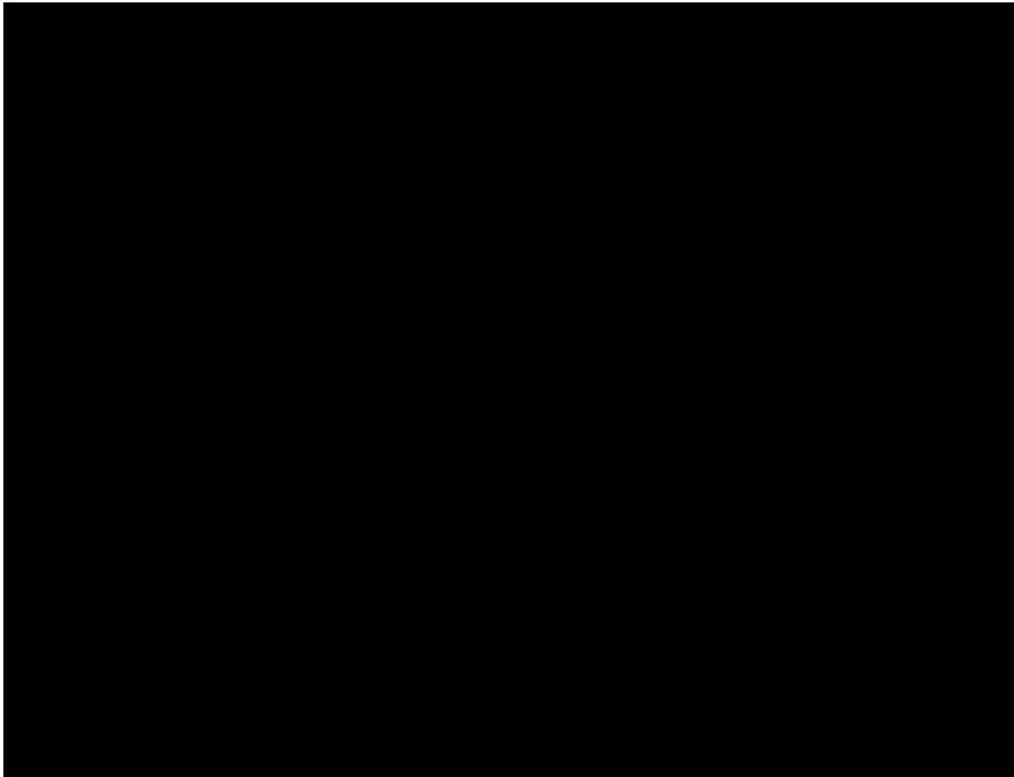
Limitation 1[d] requires “a printed circuit board disposed between the internal housing component and the external housing component, wherein the printed circuit board extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion.” JX-0001 at 44:66-45:4. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

(i) Oura Ring Gen. 3

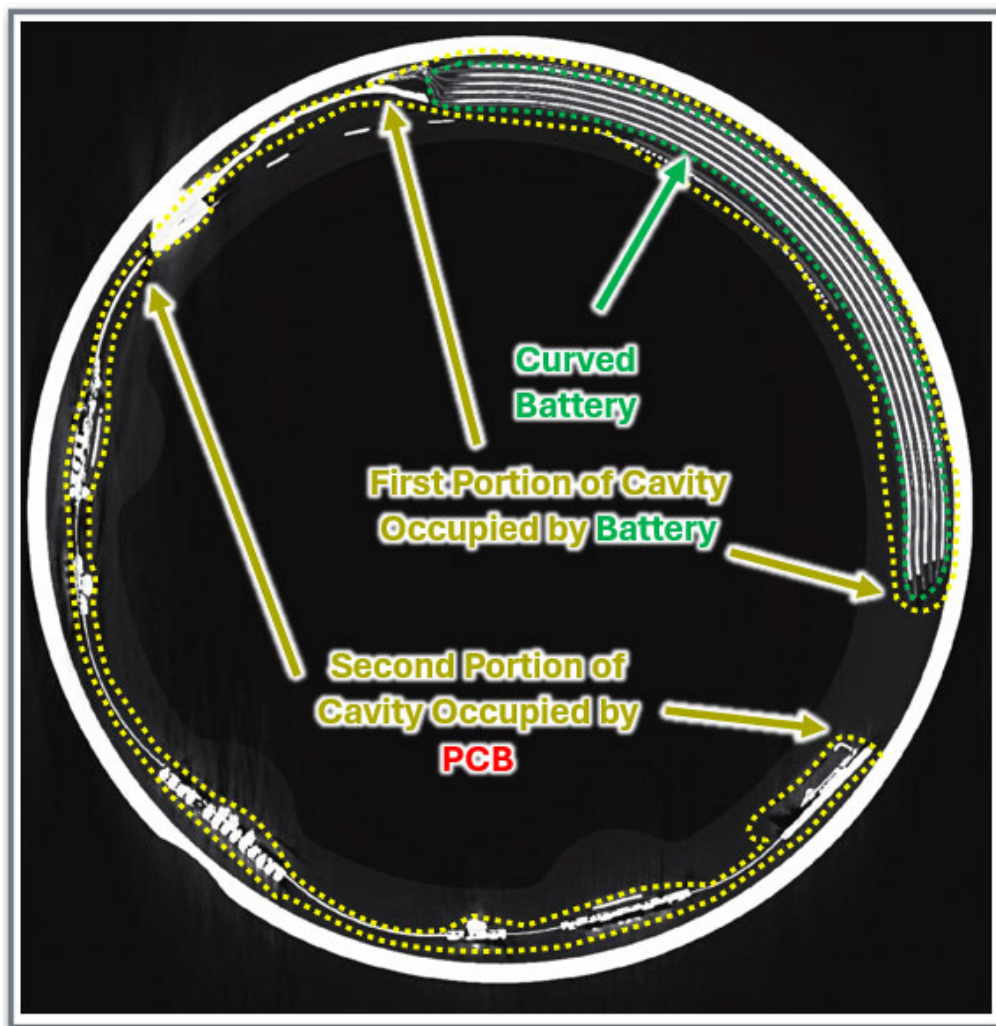
Oura Ring Gen. 3 includes a printed circuit board disposed between the internal housing component and the external housing component, wherein the printed circuit board extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion. Tr. (Sarrafzadeh) at 331:23-333:9; CX-0527C; CX-0046; CDX-0003C.120-22.



CX-0527C



Id.



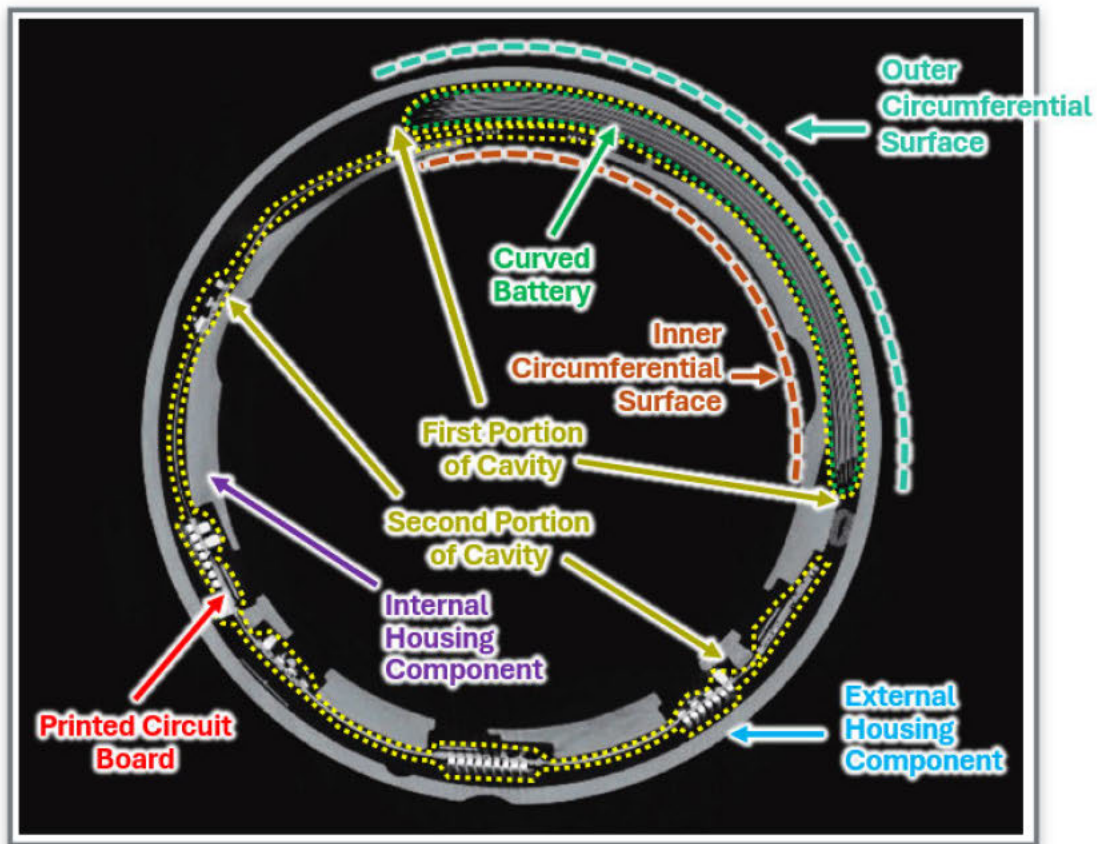
CX-0046

(ii) Oura Ring Gen. 4

Oura Ring Gen. 4 also includes a printed circuit board disposed between the internal housing component and the external housing component, wherein the printed circuit board extends through at least a second portion of the cavity of the finger-worn wearable ring device different from the first portion. Tr. (Sarrafzadeh) at 333:10-334:3; CX-0041C; CX-0074C; CDX-0003C.124.



CX-0041C



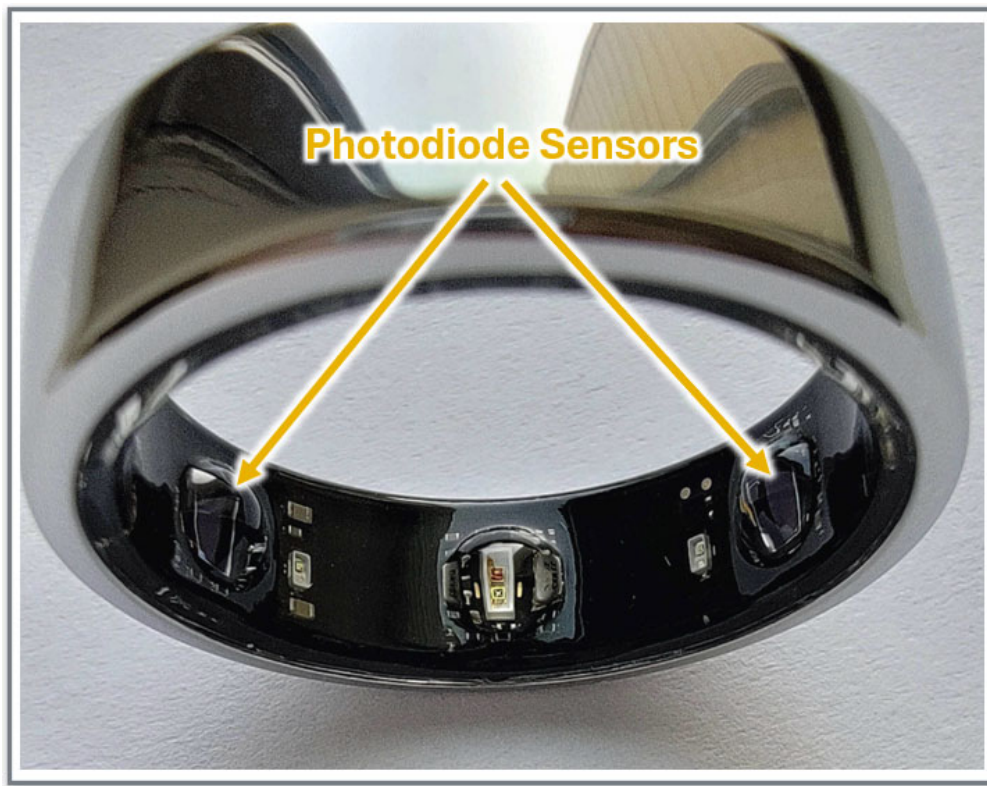
CX-0074C

j. Limitation 1[e]

Limitation 1[e] requires “one or more sensors electrically coupled with the printed circuit board and the battery and configured to acquire data from the user through the internal housing component.” JX-0001 at 45:5-8. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

(i) Oura Ring Gen. 3

Oura Ring Gen. 3 includes one or more sensors electrically coupled with the printed circuit board and the battery and configured to acquire data from the user through the internal housing component. Tr. (Sarrafzadeh) at 338:16-339:2; CX-0177; CX-0199; CDX-0003C.133-34. Indeed, Oura Ring Gen. 3 includes a number of LEDs and photodiode sensors coupled to the PCB and battery to acquire data from the red, green, and infrared light emitted from the LEDs and detected by the one or more photodiode sensors through the transparent internal housing component:



CX-0177

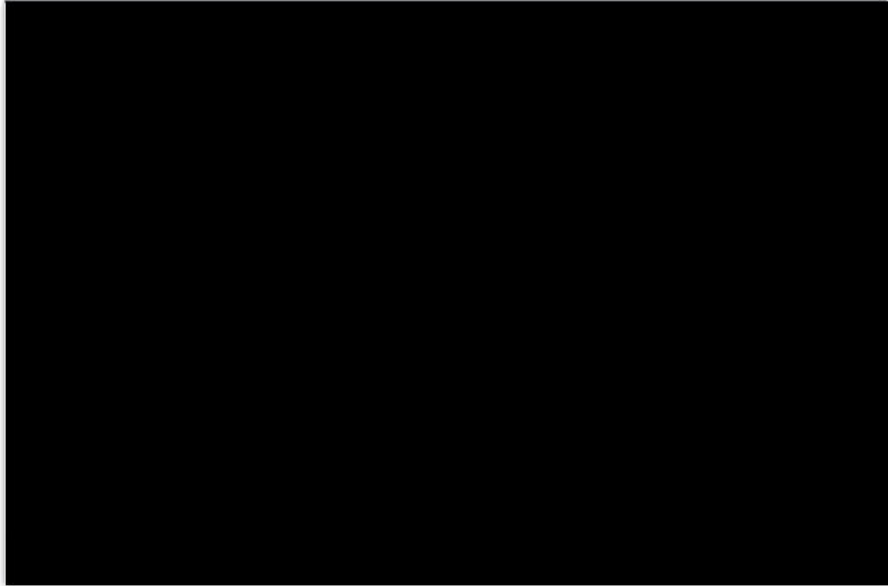


CX-0199

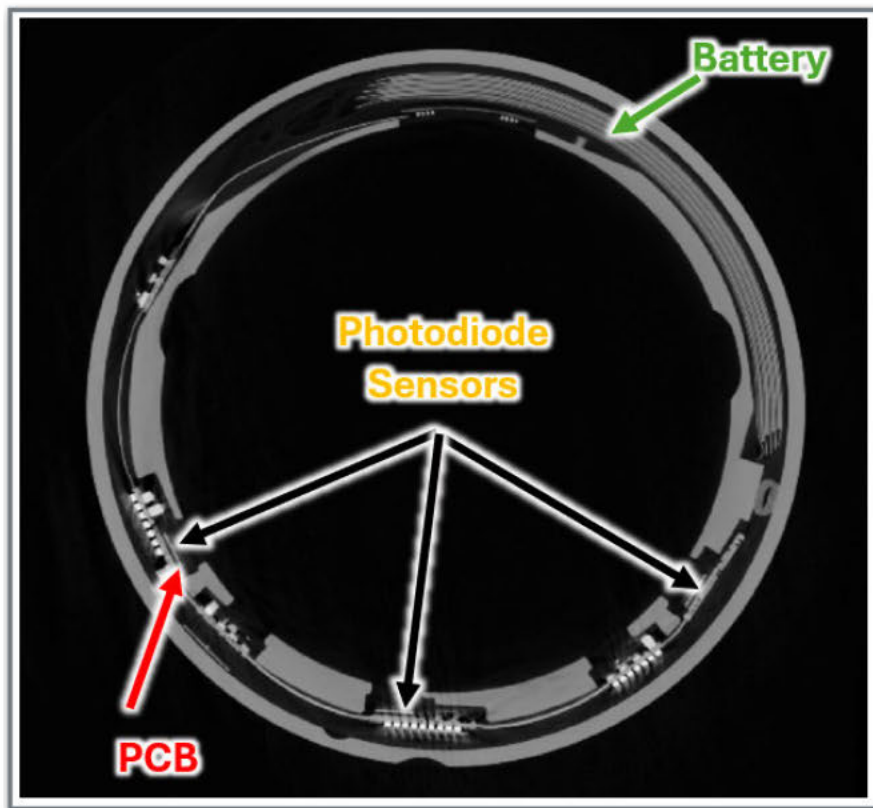
And as explained by Dr. Sarrafzadeh, because the rings do not have a display, the acquired data goes hand-in-hand with a corresponding Oura App to which the data is sent to be displayed to the user. Tr. (Sarrafzadeh) at 335:15-17.

(ii) Oura Ring Gen. 4

Oura Ring Gen. 4 includes one or more sensors electrically coupled with the printed circuit board and the battery and configured to acquire data from the user through the internal housing component. *Id.* at 339:3-14; CX-0041C; CX-0074C; CDX-0003C.135-36. Indeed, Oura Ring Gen. 4 includes a number of LEDs and photodiode sensors coupled to the PCB and battery to acquire data from the red, green, and infrared light emitted from the LEDs and detected by the one or more photodiode sensors through the transparent windows included within the internal housing component to facilitate transmission and reception of light:



CX-0041C



CX-0074C

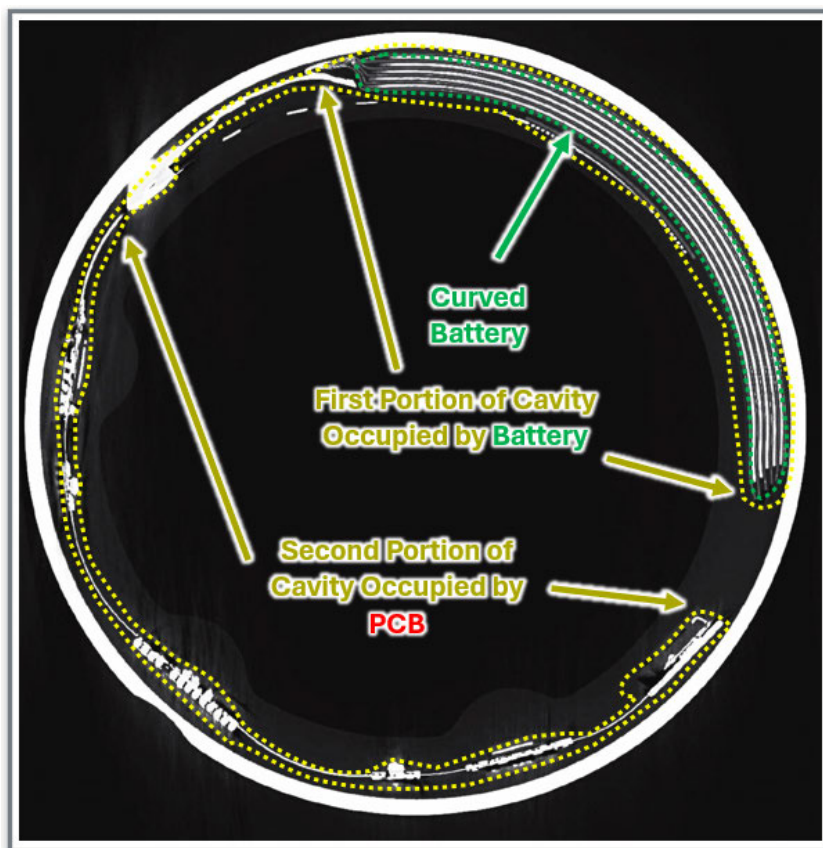
And as explained by Dr. Sarrafzadeh, because the rings do not have a display, the acquired data goes hand-in-hand with a corresponding Oura App to which the data is sent to be displayed to the user. Tr. (Sarrafzadeh) at 335:15-17.

2. Dependent Claim 2

Dependent claim 2 depends from independent claim 1, and requires “wherein the first portion of the cavity of the finger-worn wearable ring device is non-overlapping with the second portion of the cavity of the finger-worn wearable ring device.” JX-0001 at 45:9-14. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

a. Oura Ring Gen. 3

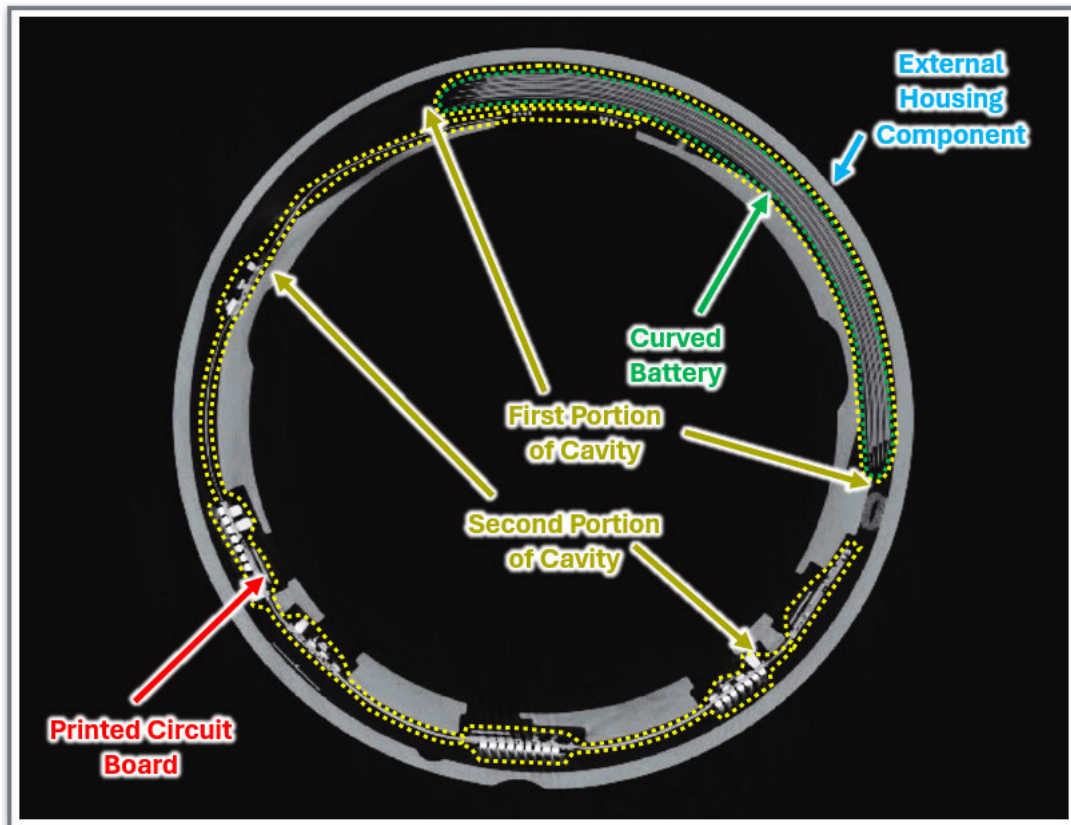
Oura Ring Gen. 3 includes the first portion of the cavity of the finger-worn wearable ring device that occupies the battery which is non-overlapping with the second portion of the cavity that occupies the printed circuit board and other components as shown below. Tr. (Sarrafzadeh) at 341:18-342:3; CX-0046. As shown below, the battery and PCB each occupy a different portion of the cavity of the ring in a non-overlapping (or non-stacking) configuration:



CX-0046

b. Oura Ring Gen. 4

Oura Ring Gen. 4 includes the first portion of the cavity of the finger-worn wearable ring device that occupies the battery which is non-overlapping with the second portion of the cavity that occupies the printed circuit board and other components as shown below. Tr. (Sarrafzadeh) at 342:4-11; CX-0074C. As shown below, the battery and PCB each occupy a different portion of the cavity of the ring in a non-overlapping (or non-stacking) configuration:



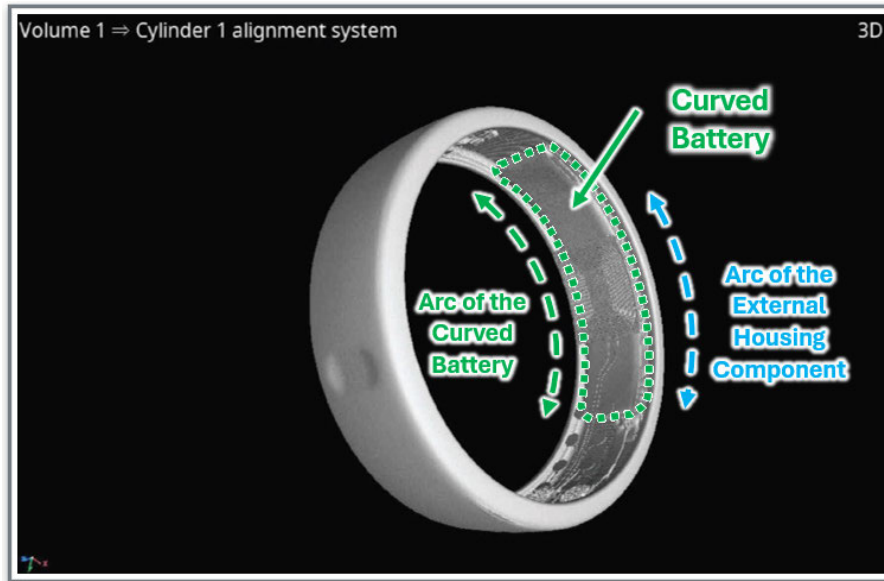
CX-0074C

3. Dependent Claim 12

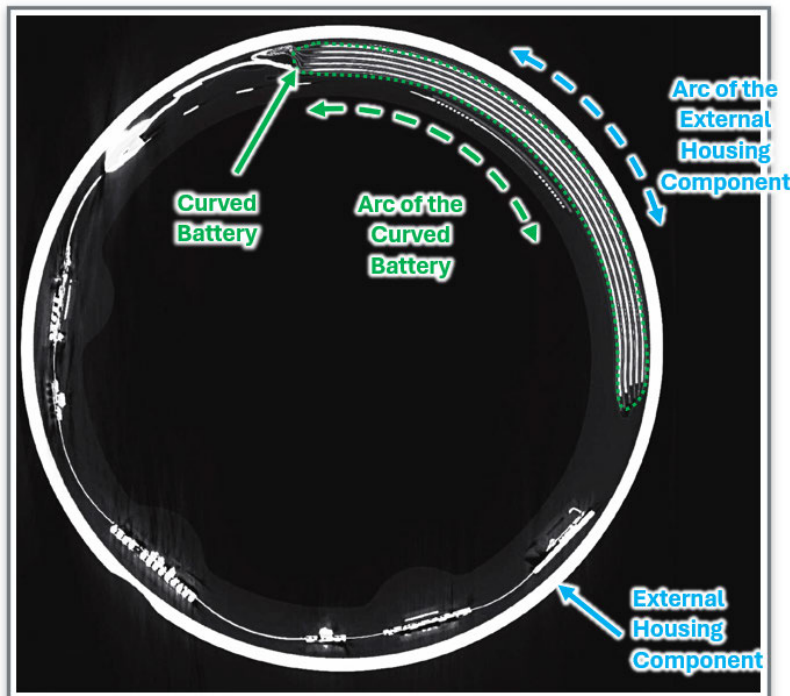
Dependent claim 12 depends from independent claim 1, and requires “wherein the battery comprises a curved battery, wherein an arc of the curved battery approximates a corresponding arc of the external housing component.” JX-0001 at 46:21-24. Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

a. **Oura Ring Gen. 3**

Oura Ring Gen. 3 has a **curved battery**, wherein an arc of the curved battery approximates a corresponding arc of the **external housing component**. Tr. (Sarrafzadeh) at 344:20-345:1; CX-0054; CX-0046.



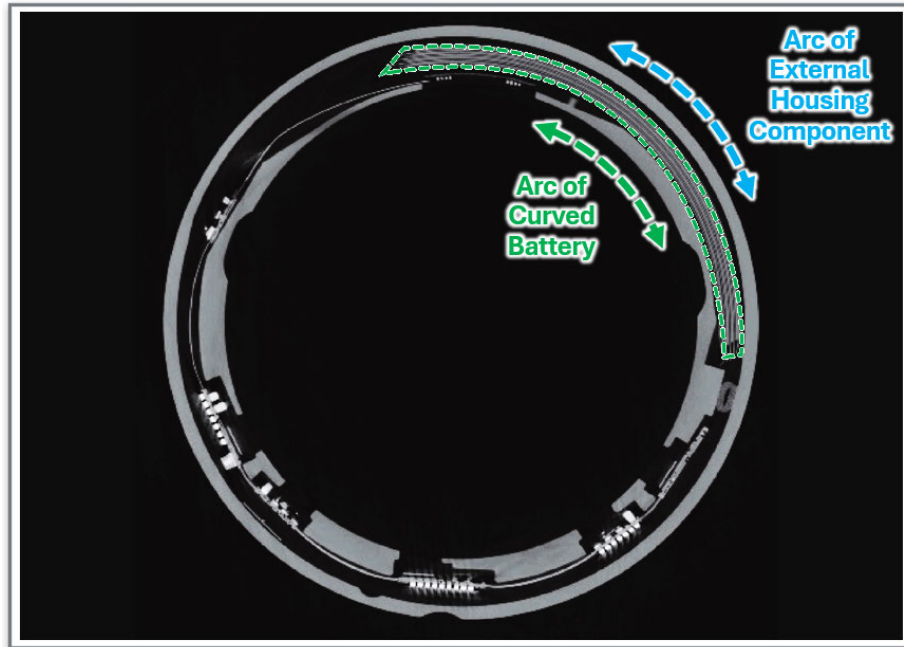
CX-0054



CX-0046

b. Oura Ring Gen. 4

Oura Ring Gen. 4 has a **curved battery**, wherein an arc of the curved battery approximates a corresponding arc of the **external housing component**. Tr. (Sarrafzadeh) at 345:2-5; CX-0074C.



CX-0074C

4. Dependent Claims 13 and 14

Dependent claim 13 depends from independent claim 1, and requires “wherein the one or more sensors comprise a first light-emitting component configured to emit light associated with a first wavelength, and a second light-emitting component configured to emit light associated with a second wavelength different from the first wavelength.” JX-0001 at 46:25-30.

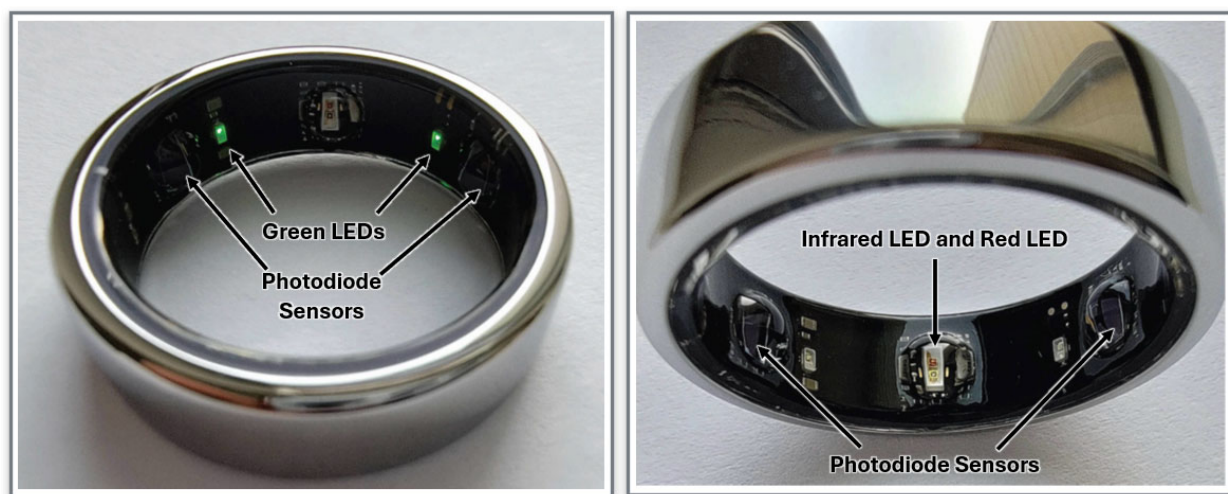
Dependent claim 14 further depends from claim 13, and requires “wherein the first wavelength is associated with visible light, and wherein the second wavelength is associated with the infrared light.” *Id.* at 46:31-34.

Both Oura Ring Gen. 3 and Gen. 4 DI products practice this limitation.

a. Oura Ring Gen. 3

Oura Ring Gen. 3 includes one or more sensors that comprise a first light-emitting

component configured to emit light associated with a first wavelength, and a second light-emitting component configured to emit light associated with a second wavelength different from the first wavelength (Claim 13), and further wherein the first wavelength is associated with visible light, and wherein the second wavelength is associated with the infrared light (Claim 14). Tr. (Sarrafzadeh) at 347:16-24; CX-0199; CX-0177. Indeed, Oura Gen. 3 includes red, green, and infrared LEDs that each have a different wavelength and the light emitted by the light sources is reflected from the user's tissue and detected by a plurality of photodiodes that use the detected light to acquire data regarding the user:



CX-0199; CX-0177

b. Oura Ring Gen. 4

The Oura Ring Gen. 4 includes one or more sensors that comprise a first light-emitting component configured to emit light associated with a first wavelength, and a second light-emitting component configured to emit light associated with a second wavelength different from the first wavelength (Claim 13), and further wherein the first wavelength is associated with visible light, and wherein the second wavelength is associated with the infrared light (Claim 14). Tr. (Sarrafzadeh) 347:25-348:5; CX-0041C. Indeed, Oura Gen. 4 includes red, green, and infrared LEDs that each have a different wavelength and the light emitted by the light sources is reflected

from the user's tissue and detected by a plurality of photodiodes that use the detected light to acquire data regarding the user:



CX-0041C

E. Respondents' Arguments on Oura's Technical Domestic Industry are also Meritless.

With respect to Oura Domestic Industry Products (both Gen. 3 and Gen. 4), Respondents' expert, Alarcon, offered only limited arguments contesting the technical prong of Oura Domestic Industry Products. *See* Tr. (Alarcon) at 961:25-963:23. As for Oura Ring Gen. 3, Alarcon argued that (1) there is no "cavity that is an outcome of the internal housing component and external housing component;" (2) "potting cures around the battery," and therefore "the 'between' limitation is not met;" and (3) "There's no internal housing component, very similar in terms of the analysis to the Ultrahuman and RingConn products." *Id.* at 961:2-17. And as for Oura Ring Gen. 4, Alarcon simultaneously argued that in Oura Ring Gen. 4 there is no cavity, "but also there

appears to be two cavities.” *Id.* at 962 2-25. Alarcon’s argument as to Oura Domestic Industry Products are both conclusory and flawed. But as discussed above with reference to Respondents’ non-infringement arguments, each of the above arguments are based on previously rejected claim construction that sought to exclude potting material. *Supra* Section VIII.C.

In sum, Oura Ring Gen. 3, Oura Ring Gen. 4, and corresponding Oura App practice each of claims 1, 2, and 12-14 of the ‘178 patent.

IX. DOMESTIC INDUSTRY – ECONOMIC PRONG

A. Oura Satisfies the Economic Prong under Section 337(a)(3)(A) and (B)

Oura has shown that it meets the economic prong of the domestic industry requirement. This requirement is not analyzed according to a rigid mathematical formula. *Certain Male Prophylactic Devices*, Inv. No. 337-TA-546, Comm’n Op. at 39 (Aug. 1, 2007). A complainant does not need to show any “minimum monetary expenditure,” and does not “need to define or quantify the industry itself in absolute mathematical terms.” *Certain Stringed Musical Instruments*, Inv. No. 337-TA-586, Comm’n Op. at 25-26 (May 16, 2008). “A precise accounting is not necessary, as most people do not document their daily affairs in contemplation of possible litigation.” *Id.* at 26. Here, a domestic industry exists with respect to the Asserted Patent under subsections (A) and (B) through Oura’s activities and U.S. investments related to the DI Product. Respondents presented no evidence to rebut Oura’s DI.

Respondents instead appear to argue that any activity related to the Oura Ring App should not count toward the DI. But to satisfy the economic prong, a complainant can rely on investments or employment “directed to significant components, specifically tailored for use in an article protected by the patent.” *Motorola Mobility, LLC v. Int’l Trade Comm’n*, 737 F.3d 1345, 1351 (Fed. Cir. 2013). The economic prong involves an examination of a complainant’s DI with respect to articles protected by the intellectual property at issue or in exploitation of the asserted patent.

InterDigital Comm'ns., LLC v. Int'l Trade Comm'n, 707 F.3d 1295, 1298 (Fed. Cir. 2013); *Certain Variable Speed Wind Turbines & Components Thereof*, Inv. No. 337-TA-376, Comm'n Op. at 21 (Sept. 6, 1996). The scope of the DI analysis may expand to include investments in non-patented components, if those components are “essential,” “necessary,” and/or “integral” to the patented component or components of a system or is “central to enabling” exploitation of the article covered by the patented technology. *Certain Magnetic Tape Cartridges and Components Thereof*, Inv. No. 337-TA-1058, Comm'n Op. at 50-54 (Apr. 9, 2019).

Respondents may also contend that investments made before Complainant acquired the '178 Patent in 2023 cannot count. There is no support for Respondents' position in the plain language of 19 U.S.C. § 1337(a)(2), which requires only that there be “an industry in the United States, relating to the articles protected by the patent[.]” In fact, the industry protected by the patent need only exist as of the filing of the complaint. *Motiva, LLC v. Int'l Trade Comm'n*, 716 F.3d 596, 601 n.6 (Fed. Cir. 2013) (affirming Commission's use of complaint filing date for assessing DI); *Hyosung TNS Inc. v. Int'l Trade Comm'n*, 926 F.3d 1353, 1361 (Fed. Cir. 2019) (“The ITC generally determines whether a domestic industry exists as of the date the complaint is filed.”); *Certain Thermoplastic-Encapsulate Elec. Motors, Components Thereof, & Prods. & Vehicles Containing Same II*, Inv. No. 337-TA-1073, Comm'n Op. at 6 (Apr. 12, 2019) (“Ordinarily, the relevant date at which to determine if the domestic industry requirement of section 337 is satisfied is the filing date of the complaint.”). Past expenditures should be considered to support a domestic industry claim, so long as those investments pertain to the complainant's industry with respect to the articles protected by the asserted patent, and the complainant is continuing to make qualifying investments at the time the complaint is filed. *Certain Television Sets, Television Receivers, Television Tuners, & Components Thereof*, Inv. No. 337-TA-910, Comm'n Op. at 36 (Oct. 30,

2015); *see also Hyosung*, 926 F.3d at 1361 (finding investments in research and development regarding claimed features more than five years before the complaint supported DI claim) *Certain Wearable Monitoring Devices*, Inv. No. 337-TA-1190, Initial Determination at 73-74 (Feb. 4, 2021) (“I see no reason why expenditures cannot relate to a product and therefore be cognizable under subparagraph (B) simply because the activities that gave rise to those expenditures occurred before the patent that protects the DI products was acquired.”); *Certain Road Milling Machines*, Inv. No. 337-TA-1067, Final Initial Determination at 425 (Oct. 31, 2018) (not reviewed in relevant part); *see also Certain Video Game Sys. and Controllers*, Inv. No. 337-TA-743, Comm’n Op. at 6 (Apr. 14, 2011) (holding that the ALJ erred in declining to consider activities that occurred before issuance of asserted patent because “the language of sections 337(a)(2) and 337(a)(3)(C) is broad enough to cover ‘investments’ made before issuance of the patent”). *Wearable Monitoring Devices*, Initial Determination at 73-74 (“I see no reason why expenditures cannot relate to a product and therefore be cognizable under subparagraph (B) simply because the activities that gave rise to those expenditures occurred before the patent that protects the DI Products was acquired.”); *Road Milling Machs.*, Final Initial Determination at 425 (not reviewed in relevant part); *see also Video Game Sys. and Controllers*, Comm’n Op. at 6 (holding that the ALJ erred in declining to consider activities that occurred before issuance of asserted patent because “the language of sections 337(a)(2) and 337(a)(3)(C) is broad enough to cover ‘investments’ made before issuance of the patent”). Therefore, there is no basis for excluding Complainants’ expenditures prior to acquisition of the’ 178 Patent for purposes of determining whether a DI exists.

1. Oura’s DI Activities

Oura engages in a variety of activities and investments within the U.S. in support of its DI Product. It has significant U.S. investments in plant, equipment, labor, and capital associated with Oura’s research and development (“R&D”) and technical support activities in support of the DI

Product. In fact, the Oura Ring (with its application) is Oura's *only* product, all of the company's investments are in support of the DI Product, and all of Oura's revenues are related to the DI Product. Tr. (Chapp) at 99:11-16; Tr. (Mulhern) at 473:8-11. Both Generation 3 and Generation 4 of the Oura Ring practice the asserted patent. Tr. (Mulhern) at 469:15-21.

The application is software that is designed to use with the ring to provide the overall functionality and to provide information to the user regarding the user's health and wellness. Tr. (Mulhern) at 469:24-470:3. The ring itself does not have a display on it, therefore, in order to communicate and share the insights and recommendations, the App is an essential and necessary part of the product. Tr. (Chapp) at 93:22-94:7; Tr. (Mulhern) at 470:15-21. The ring and App form the complete solution, working together by first gathering the data, shining light into the finger, detecting the signals, using those signals in the algorithms, and then, through Oura's development of a feature, displaying that information to the user. Tr. (Chapp) at 94:8-95:2. The app displays an activity score, readiness, sleep data, heart health insights, women's health insights, stress and resilience, and other features and information. Tr. (Chapp) at 94:8-14. The App is available to the user at no cost with some basic functionality, but to have access to the full line of features, a user must pay for a "membership" with subscription costs. Tr. (Mulhern) at 470:4-14 .

The [REDACTED] sales of the Oura Ring are in the United States. Oura sold [REDACTED] units in the United States during the period fiscal year 2022 through second quarter fiscal year 2024, which represents about [REDACTED] of total sales. Tr. (Chapp) at 99:4-10; Tr. (Mulhern) at 472:3-13; CX-0723C; CX-0581C. Oura's fiscal year runs from [REDACTED]. Tr. (Chapp) at 99:1-3; Tr. (Mulhern) at 472:14-18. Oura earned [REDACTED] in worldwide sales during that same period. Tr. (Mulhern) at 472:25-473:7; CX-0958C; *see also* CX-0573C; CX-0955C; CX-0042C; CX-0720C.

Oura's number of membership subscribers have increased each fiscal year since the launch of the program, from [REDACTED] members in fiscal year 2022 to [REDACTED] subscribers by March of 2024. Tr. (Mulhern) at 473:18-474:4; CX-0724C; CX-0581C ('Membership' Tab). The "churn rate," which is a way to gauge customer satisfaction, is the number of subscribers at the beginning of the period who cancel their membership, has dropped from [REDACTED] in September 2022 to [REDACTED] in March of 2024. Tr. (Chapp) at 155:8-12; Tr. (Mulhern) at 474:5-16.

A domestic industry exists with respect to the Asserted Patent under subsections (A) and (B) through Oura's activities and U.S. investments related to the DI Product. Oura engages in U.S. activities, cognizable activities, in support of the DI Product, which include R&D and technical support, and Oura has claimed U.S. investments in the DI Product related to these activities including plant and equipment investments, that total [REDACTED] and labor and capital investments that total [REDACTED], which is broken down as follows:

**Oct. 2021 – Mar. 2024
(FY 2022 – Q2 FY 2024)**

	Plant & Equipment	Labor & Capital
R&D	[REDACTED]	[REDACTED]
Technical Support	[REDACTED]	[REDACTED]
Total	[REDACTED]	[REDACTED]

Tr. (Mulhern) at 477:4-25; CX-0740C. Respondents presented no evidence to rebut Oura's domestic industry.

a. R&D

All R&D activities at Oura relate to the DI Products. Tr. (Chapp) at 106:3-5. In fact, 100% of Oura's R&D efforts are related to the Oura Ring and App. Tr. (Mulhern) at 479:3-8. The core functionalities of Oura's R&D efforts are based in the U.S. CX-0731C; CX-0506C. As explained below, The R&D team is responsible for building new capabilities and improving existing capabilities of the DI Product, as well as continuously improving the customer experience.

In the United States, Oura's core R&D functionalities include [REDACTED]. Tr. (Chapp) at 105:3-10. The numerous R&D departments are denoted in Oura's accounting documents [REDACTED]. Tr. (Chapp) at 106:9-12. These departments include the following specifically named subgroups, by number prefix, [REDACTED]. CX-0731C; CX-0506C.

In the R&D group in the U.S., Oura has the product organization group for hardware that helps define what the ring looks like. And they will work with the different teams, such as the science and the software organizations, to define what Oura needs to build in terms of a ring in the future. The engineering team that designs and engineers the product works closely with the science organization. The science organization will analyze the signals that come off of the ring and any type of sensing, whether it is temperature or the infra-red, green, or red LEDs. They will pull those signals and develop the algorithms which are translated from data into insights. For example, the insights could take the data and show the various sleep stages (REM or deep). The science team works with the firmware team, the software organization, and the software design team to then

build all the graphics, build everything on the engineering side, and on the software side to build that into the App. From the R&D perspective, it goes from signals of the ring to building the algorithms. Oura will also do research, if required, and some studies, including clinical trials with outside researchers to validate the algorithms and resulting insights. Tr. (Chapp) 149:10-150:21.

Through its R&D efforts and investments, Oura's U.S. R&D personnel are actively involved in the development of new features for the Oura Ring and Oura App. In FY 2022 and 2023, everything the R&D employees were working on related to Gen. 3 or the Gen. 4 ring. Tr. (Chapp) at 106:13-18.⁸ These R&D personnel support both existing and future products and are continuously developing and innovating. Through continuous R&D, Oura will develop and refine its products. In 2024, Oura launched numerous new features and insights, including a symptom radar, heart health, and women's health features such as pregnancy tracking. CX-0891; CX-0826; CX-0885.

In addition to its in-house R&D employees, Oura also has a Medical Advisory Board ("MAB"), which provides scientific support to Oura as well as engages in various marketing and social activities. Tr. (Chapp) at 109:3-15; CX-0508C e.g., at tabs 'Dr. Elissa Epel (Psychology),' 'Dr. Matthew Walker (Sleep),' 'Dr. Jake Deutsch (Longevity).'

Oura recently launched the fourth generation of the Oura Ring. The fourth generation Oura Ring is an evolution from the prior generations, which adds further capabilities to the ring, including "smart sensing," which was developed in the United States. Tr. (Chapp) at 93:2-10, 105:12-25; CX-1146.

⁸ Oura stopped selling the Gen. 2 ring after launch of Gen. 3, and will stop selling Gen. 3 rings after it sells out of what remains in inventory. Tr. (Chapp) at 93:11-17.

c. Technical Support

Oura also has employees in the U.S. in the “Member Experience” (also known as “MX”) department who provide technical support. Tr. (Chapp) at 105:3-11. In the U.S. since FY 2022, Oura’s technical support function is supported by the following departments, collectively referred to as “Member Experience” or “MX”: [REDACTED]
[REDACTED] t. CX-0506C. As of April 30, 2024, Oura employed [REDACTED] individuals in this department in the U.S. CX-0731C.

2. U.S. Investment in Plant and Equipment

a. Plant

(i) Overall Investments

Oura maintains facilities in several locations in the U.S. in which some employees are based, including R&D employees. Specifically, Oura has two permanent facilities, one in San Francisco and one in San Diego. Tr. (Mulhern) at 481:19-22. Oura leases a facility of approximately [REDACTED] square feet that, as of April 2024, is home to [REDACTED] employees working in operations, sales and marketing, R&D, business operations, technical support, Oura’s executive leadership, and administrative activities. Tr. (Mulhern) at 482:11-16; CX-0733C; CX-0791C at CX-0791C.0006. In San Diego, Oura leases a facility of approximately [REDACTED] square feet that, as of April 2024, houses a total of [REDACTED] employees engaged in R&D, operations, sales and marketing, technical support, and administrative activities. Tr. (Mulhern) at 482:9-11; CX-0732C; CX-0769C at CX-0769C.0001. Additionally, Oura also maintains coworking spaces in Boston and New York for their remote employees in those locations, which Oura conservatively does not include in the economic prong investment calculation. Tr. (Mulhern) at 482:22-483-3. CX-0506C.

Oura has made considerable investments in its U.S.-based facilities in support of the DI Product. Specifically, between Q2 FY 2022 and Q2 FY 2024, Oura invested [REDACTED] and [REDACTED] in

U.S. facilities-related investments (*i.e.*, rent, utilities, and common area maintenance) to San Diego and San Francisco, respectively, for a total of [REDACTED]. Tr. (Mulhern) at 481:19-24, 482:17-21; CX-0727C; CX-0574C, CX-0924.

(ii) Allocation to DI Activities

In the detailed data regarding the number of U.S. employees by department for FY 2022, FY 2023, and FY 2024, all departments with a numerical code starting with a [REDACTED] are appropriately considered R&D departments. Tr. (Chapp) at 106:9-12; CX-0731C; CX-0506C. The total facility investments can be attributed to the relevant activities using a headcount-based method to allocate facility investments to R&D and technical support. Tr. (Mulhern) at 483:12-24, 485:4-17; CX-0728C; CX-0574C; CX-506C.

(a) R&D

Specifically, at the San Diego facility, total headcount between FY 2022 and FY 2024 ranged from [REDACTED], of which a range of [REDACTED] were dedicated to R&D activities. CX-0732C; CX-506C. The San Francisco facility, with a total headcount between FY 2022 and FY 2024 ranging from [REDACTED], of which a range of [REDACTED] were engaged in R&D activities; CX-0733C; CX-506C. Approximately [REDACTED] in Oura's U.S. facilities investments associated with R&D activities over the period FY 2022 to Q2 FY 2024. Tr. (Mulhern) at 484:1-5; see also CX-0727C; CX-0728C; CX-0574C; CX-506C; CX-0731C.

(b) Technical Support

Of the total headcount between FY 2022 and FY 2024 at the San Diego facility, [REDACTED] were dedicated to technical support activities. Tr. (Mulhern) at 484:7-9; CX-0732C; CX-506C. Of the total headcount between FY 2022 and Q2 FY 2024 at the San Francisco facility, [REDACTED] were dedicated to technical support activities Tr. (Mulhern) at 484:9-11; CX-0733C; CX-506C. Approximately [REDACTED] in Oura's U.S. facilities investments associated with

technical support activities. Tr. (Mulhern) at 484:11-12; CX-0506C at tabs ‘Copy of HC global Dec 31 2021’, ‘Copy of HC global Dec 31 2022’, and ‘Global HC April 30 2024’.

b. Equipment

In addition to facilities, Oura invests in equipment to support its U.S.-based R&D and technical support activities related to the DI Product. Oura tracks non-capitalized equipment and software, such as 3D printers and lab equipment and various software expenses by department. In addition, Oura invests in other R&D materials used, for example, in the development of prototypes, which are also tracked by department. Tr. (Mulhern) at 485:22-486:11; CX-0729C; CX-0505C.

(i) R&D

Oura’s R&D equipment investments in the U.S. are: [REDACTED] related to non-capitalized equipment; [REDACTED] related to software, and [REDACTED] in other R&D materials expenses, or a total of [REDACTED] from Q2 FY 2022 through Q2 FY 2024. Tr. (Mulhern) at 486:12-17; CX-0729C; CX-0505C.

(ii) Technical Support

Oura’s technical support investments in the U.S. are: [REDACTED] in non-capitalized equipment and [REDACTED] in software, or a total of [REDACTED] from Q2 FY 2022 through Q2 FY 2024.² *Id.*

c. Summary of Plant and Equipment Investments

Over the period FY 2022 and Q2 FY 2024, Oura’s U.S. investments in plant and equipment allocable to DI activities total [REDACTED]. Tr. (Mulhern) at 487:2-9; CX-0730C; CX-0574C; CX-506C; CX-0505C.

4. U.S. Investment in Labor and Capital

a. Labor

(i) Overall Investments

Oura employed [REDACTED] in the U.S. CX-0731C; CX-0506C. Oura's total compensation for all U.S. employees supporting the DI Product totaled [REDACTED]. CX-0734C-CX-0736C; CX-0575C; CX-0576C.

(ii) Investments in DI Activities

Oura employed a total of [REDACTED] in the U.S. responsible for R&D and technical support DI activities, respectively. Tr. (Mulhern) at 487:10-18; CX-0731C and CX-0736C; CX-0506C; CX-0575C; CX-0576C. As discussed below, Oura's investments in each of the DI activities can be identified based on this labor investment data by department. CX-0736C; CX-0575C; CX-0576C; CX-0734.

(a) R&D

Oura employed a total of [REDACTED] in R&D activities in the U.S. as of April 30, 2024. Tr. (Mulhern) at 487:10-18; CX-0731C; CX-0506C. This total includes individuals in the departments that start with a [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]. Tr. (Mulhern) at 487:22-488:8; Tr. (Chapp) at 106:6-12. For these individuals, from FY 2022 through Q2 FY 2024, Oura invested a total of [REDACTED] in salary and benefits for personnel engaged in R&D activities in the U.S., consisting of [REDACTED] for FY 2022, [REDACTED] for FY 2023; and [REDACTED] for Q2 FY 2024. Tr. (Mulhern) at 488:15-21; CX-0736C; CX-0575C; CX-0576C. The DI Product is Oura's only product; therefore,

all of Oura's U.S. investments in R&D labor are allocable to the DI Product.

(b) Technical Support

As previously mentioned, Oura employs a total of [REDACTED] in technical support activities in the U.S. as of April 30, 2024. CX-0731C; CX-0506C. The [REDACTED] include individuals in the "MX" departments: [REDACTED]. Tr. (Mulhern) at 488:9-14;. For these individuals, from FY 2022 through Q2 FY 2024, Oura has invested a total of [REDACTED] in salary and benefits for personnel engaged in technical support activities in the U.S., consisting of [REDACTED] for FY 2022, [REDACTED] for FY 2023; and [REDACTED] for Q2 FY 2024. Tr. (Mulhern) at 488:15-21; CX-0736C; CX-0575C; CX-0576C. Because the DI Product is Oura's only product, all of Oura's U.S. investments in technical support labor are allocable to the DI Product.

b. Capital Investments

(i) Third-Party Study Investments

Oura has engaged in a number of studies with third parties as part of their R&D activities supporting the DI Product in the U.S. Tr. (Mulhern) at 489:3-11; Tr. (Chapp) at 109:16-110:2; CX-0925. These include payments made to a variety of universities, medical facilities, and other consultants. CX-0738C; CX-0515C. Overall, between FY 2022 and Q2 FY 2024, Oura's investments in these third-party vendors supporting scientific studies total approximately [REDACTED]. Tr. (Mulhern) at 489:12-15; CX-0738C; CX-0995.

(ii) Medical Advisory Board

As previously discussed, Oura also has an external interdisciplinary science team, referred to as the Medical Advisory Board ("MAB"), who contribute their expertise to Oura's content for [its] members, conduct research, and advise in development of features. Tr. (Chapp) at 109:3-15; CX-0884. Between 2022 and July 2024, Oura has invested approximately [REDACTED] in compensation

for the members of its MAB in the form of cash and equity worldwide. Tr. (Mulhern) at 489:16-23; CX-0737C. The MAB investment numbers are not included in the DI Economic Prong to be on the conservative side. Tr. (Mulhern) at 489:24-490:9; CX-0827; CX-0811C; CX-0506C, CX-508C. This exclusion is because members of the MAB are responsible for a variety of activities, including those that relate to R&D as well as promotional and marketing activities, and that it cannot be reliably determined what portion of each individual's time that is devoted to science and R&D versus marketing and other social activities. Tr. (Mulhern) at 489:24-490:9.

c. Summary of Labor and Capital Investments

In sum, as shown below, Oura's U.S. investments in labor for personnel allocable to DI activities total approximately [REDACTED] over the period FY 2022 and Q2 FY 2024, comprised of [REDACTED] for R&D and [REDACTED] for technical support. Tr. (Mulhern) at 490:13-21; CX-0739C; CX-0515C; CX-0575C; CX-0576C; CX-0736C; CX-0734C; CX-0735C; CX-0738C. Moreover, Oura's investments in external third-party R&D services associated total approximately [REDACTED] over this same period. *Id.*

Activity	Allocated Labor Investments	Allocated Capital Investments	Allocated Labor and Capital Investments
R&D	[REDACTED]		
Technical Support			
DI Activities			

6. Quantitative and Qualitative Significance of Oura's Activities and Investments

Oura's investments in its DI Products are qualitatively and quantitatively significant, as discussed below.

a. Qualitative Significance

There are a number of ways to confirm the qualitative significance of Oura's U.S. domestic investments. At a very high level, the DI product is Oura's only product, so the DI product represents 100 percent of sales. In addition, the U.S. accounts for the majority of Oura's worldwide sales in terms of the DI product sales. As well, nearly [REDACTED] of Oura's worldwide employees are in the U.S., which confirms the importance of the U.S. operations to Oura. In compensation terms or in dollar terms, U.S. personnel account for [REDACTED] of Oura's worldwide labor costs. And most of Oura's C-suite executive team is located in the U.S. Tr. (Mulhern) at 493:9-494:1.

(i) R&D

Because the [REDACTED] are associated with U.S. consumers, Oura's U.S. R&D activities are critical to Oura's ability to meet the needs of the U.S. marketplace. Tr. (Chapp) at 106:19-107:1; Tr. (Mulhern) at 491:4-13; CX-0723C, CX-0581C. Further, Oura has greater access to top scientific and medical research institutions in the U.S. and the majority of Oura's research operations and collaboration with research partners are conducted in the U.S. Tr. (Chapp) at 110:3-18; Tr. (Mulhern) at 491:14-17. Similarly, the majority of activities surrounding the development of new algorithms and health sensing capabilities occur in the U.S. Tr. (Chapp) at 105:13-25; Tr. (Mulhern) at 491:17-19. With respect to Oura's Gen. 4 ring, Oura's San Diego R&D team developed [REDACTED] on [REDACTED]. The U.S. team also developed the [REDACTED] technology, and developed [REDACTED] and

techniques. Tr. (Chapp) at 105:16-25.

(ii) Technical Support

Although Oura also uses third-party providers of customer support services based outside the U.S. to support the Oura Ring user experience, Oura's investments in U.S. technical support activities are significant in the context of its worldwide activities from a qualitative perspective.

Tr. (Chapp) at 107:2-16. [REDACTED]

[REDACTED], but more [REDACTED]

[REDACTED] personnel. *Id.* at 107:17-108:3; Tr. (Mulhern) at 492:10-25.

[REDACTED] Tr. (Chapp) at 108:4-11.

Moreover, as mentioned above, from FY 2022 through Q2 FY 2024 approximately [REDACTED] of the DI Product sales were based in the U.S. *Id.* at 99:4-10; Tr. (Mulhern) at 492:25-493:3, and 493:16-18; CX-0723C; CX-0581C. The large portion of DI Product sales in the U.S. means that U.S. investments in technical support play an important role in ensuring a positive user experience with the Oura Ring and corresponding Oura Appl. Given that [REDACTED] is in the U.S., having domestic technical support in U.S. time zones and the ability to communicate effectively regarding technical issues is critical to Oura's ability to respond to requests and address concerns in a timely manner. Tr. (Chapp) at 107:6-22. Oura's U.S. technical support personnel play an important role in providing Oura's customers with the company's desired exemplary level of customer service. *Id.*

b. Quantitative Significance

Oura's U.S. investments in the DI Product are significant from a quantitative perspective based on a variety of metrics as described further below.

As a preliminary matter, as explained above, the DI Product is Oura's only product; thus, the Oura Ring and associated revenue represents 100 percent of Oura's worldwide sales. Tr.

(Mulhern) at 493:9-15; CX-0720C; CX-0573C. Moreover, [REDACTED] of Oura's worldwide sales, representing [REDACTED] Oura's total sales between FY 2022 and Q2 FY 2024. CX-0723C; CX-0581C.

Furthermore, a significant share of Oura's overall workforce is based in the U.S. [REDACTED] [REDACTED] Oura's employees were located in the U.S. as of April 2024, which confirms the importance of the U.S. operations to Oura. Tr. (Mulhern) at 493:18-21; CX-0746C; CX-0506C; CX-0573C; CX-0575C; CX-0576C. In terms of compensation, from FY 2022 through Q2 FY 2024, [REDACTED] of Oura's total labor investments in the form of salary, bonuses, and benefits are associated with Oura's employees based in the U.S. Tr. (Mulhern) at 493:22-24. Most of Oura's C-suite executive team is located in the U.S. Tr. (Mulhern) at 493:24-25; CX-0720C; CX-0573C; CX-0746C; CX-0731C; CX-0506C; CX-0745C; CX-0736C; CX-0734C; CX-0575C; CX-0735C; CX-0576C; CX-0750C; CX-0800C; CX-0932.

(i) R&D in the U.S. compared to the rest of the world

There are several quantitative comparisons that indicate that Oura's claimed U.S. investments in R&D are significant in the context of its worldwide investments, thereby confirming the importance of the R&D function within Oura's U.S. operations. CX-0736C; CX-0575C; CX-0576C.

(ii) Plant and Equipment Investments, U.S. share of Worldwide

Oura has U.S. R&D investments in plant and equipment, as a share of worldwide plant and equipment investments, is significant. Together, U.S. R&D plant and equipment investments are [REDACTED] of Oura's worldwide R&D plant and equipment investments. Tr. (Mulhern) at 494:12-495:2; CX-0744C; CX-0574C; CX-0819C; CX-0820C; CX-0505C; CX-0728C; CX-0727C; CX-0742C; CX-0741C; CX-0729C; CX-0743C. More specifically, the U.S. plant investments

allocated to the R&D function represent [REDACTED] of the analogous worldwide plant investments between Q2 FY 2022 and Q2 FY 2024. U.S. R&D equipment investments constituted approximately [REDACTED] of those made worldwide during this period. CX-0744C.

(iii) Labor and Capital, U.S. share of Worldwide

A significant share of Oura personnel responsible for the R&D of the DI Product are based in the U.S., thereby confirming the importance of Oura's U.S. R&D activities in the context of its worldwide R&D activities. On a headcount basis, as of FY 2024, [REDACTED] of Oura's R&D employees are based in the U.S., up from [REDACTED] in FY 2022. Tr. (Mulhern) at 495:7-20; CX-0747C; CX-0506C.

Similarly, Oura's U.S. investments in R&D labor are significant in the context of worldwide investments in such activities. Specifically, between FY 2022 and Q2 FY 2024, the U.S. labor investments allocated to the DI Product are [REDACTED] of the analogous worldwide total. Tr. (Mulhern) at 495:21-496:4; CX-0751C; CX-0575C; CX-0576C; CX-0800C; CX-0745C; CX-0736C; CX-0735C; CX-0750C.

With respect to capital investments, Oura has engaged in a number of studies with third parties as part of their R&D activities supporting the DI Product both in the U.S. and outside the U.S. Those investments in the U.S. total approximately [REDACTED]. Tr. (Mulhern) at 496:9-23; CX-0755C; CX-0515C; CX-0754C; CX-0738C. Worldwide, those investments from FY 2022 to Q2 FY 2024 total [REDACTED]. *Id.* Thus, Oura's U.S.-based investments in third-party R&D activities are approximately [REDACTED] of the worldwide total. *Id.*

(iv) Technical Support, U.S. share of Worldwide

There are several quantitative indicators that Oura's U.S. technical support investments are significant in the context of its worldwide technical support activities. Tr. (Mulhern) at 497:3-13.

(b) Plant and Equipment Investments

Oura's U.S. technical support investments in plant as a share of worldwide plant investments in those same departments is significant. Together, U.S. technical support plant and equipment investments are [REDACTED] of Oura's worldwide technical support plant and equipment investments. Tr. (Mulhern) at 497:14-24; CX-0744C; CX-0574C; CX-0819C; CX-0820C; CX-0505C; CX-0728C; CX-0727C; CX-0574C; CX-0742C; CX-0741C; CX-0729C; CX-0743C. More specifically, U.S. plant investments allocated to the technical support function represent [REDACTED] of the analogous worldwide plant investments between Q2 FY 2022 and Q2 FY 2024. CX-0744C. Between Q2 FY 2022 and Q2 FY 2024, technical support equipment investments made in the U.S. constituted approximately [REDACTED] of those made worldwide during this period. CX-0744C.

(c) Labor

On a headcount basis, a significant share of Oura personnel responsible for the technical support of the DI Product are based in the U.S. As of FY 2024, for employees identified in departments supporting Oura's technical support function, [REDACTED] of technical support employees are based in the U.S. Tr. (Mulhern) at 498:5-21; CX-0747C; CX-0506C. Similarly, Oura's U.S. investments in technical support labor are significant in the context of worldwide investments in such activities. Specifically, the U.S. labor investments allocated to the DI Product are [REDACTED] of the analogous worldwide total between FY 2022 and Q2 FY 2024. Tr. (Mulhern) at 498:22-499:1; CX-0751C; CX-0575C; CX-0576C; CX-0800C.

In addition to its in-house technical support personnel, [REDACTED]
[REDACTED] Tr. (Mulhern) at 499:2-10; CX-0747C; CX-0506C. These third-party providers are based outside of the U.S. From Q2 FY 2022 to Q2 FY 2024. Considering the third-party investment, the U.S.-based technical support labor investments

represent [REDACTED] of Oura's worldwide technical support labor and capital investment total. CX-0753C; CX-0752C; CX-0731C; CX-0745C; CX-0751C; CX-0736C; CX-0734C; CX-0575C; CX-0576C; CX-0750C; CX-0800C; CX-0505C.

X. REMEDY AND BONDING

The appropriate remedies in this investigation are a limited exclusion order against each Respondent, a cease-and-desist order against each Respondent, and the imposition of a bond. These remedies are warranted and necessary to protect Oura's DI from Respondents' unfair acts. There is no basis for any exemptions, carveouts, or delays in these remedial orders.

A. Limited Exclusion Order ("LEO")

The economic factors support the issuance of a limited exclusion order, as explained further below. There are a number of alternatives available to U.S. consumers in the event of a remedy, including not only the Oura Ring, but also other smart rings and more generally, other fitness tracking devices. Tr. (Chapp) at 102:3-103:8; CX-0523C at tab 'Total.' The availability of these products suggests that the proposed remedy would not have a material adverse impact on U.S. consumers or competitive conditions in the U.S. marketplace.

B. Cease & Desist Orders Are Warranted

1. Ultrahuman

Ultrahuman holds inventories of its Ultrahuman Ring AIR at several locations in the U.S. Tr. (Mulhern) at 500:1-11; CX-0756C at CX-0756C.0002; CX-0565C; CX-0028C; Tr. (Kumar) at 722:5-14. In June 2024, Ultrahuman's domestic inventories of the Ultrahuman Ring AIR totaled [REDACTED] with a value of [REDACTED]. CX-0756C at CX-0756C.0002; CX-0565C; CX-0028C. The inventory value associated with these products was based on Ultrahuman's 2024 average selling price. *Id.* Based on these sales levels, Ultrahuman's June 2024 inventory of [REDACTED] represents approximately [REDACTED]. *Id.*; CX0725C; CX-0757C.

2. RingConn

RingConn contracts with [REDACTED] to provide warehousing and additional logistic services for RingConn in the U.S. for the RingConn Smart Ring, including [REDACTED]. Tr. (Wu) at 767:6-768:7. In Q2 2024, RingConn reported its domestic inventories of the RingConn Smart Ring to be [REDACTED], with a reported value of approximately [REDACTED]. Tr. (Mulhern) at 500:12-16; CX-0758C.

The comparison RingConn's inventories of the RingConn Smart Ring with its actual sales levels supports a cease and desist order. For example, in Q2 2024, RingConn's sales of the RingConn Accused Products totaled [REDACTED] or an average of [REDACTED]. CX-0759C. Based on these sales levels, the RingConn Smart Ring Q2 2024 inventory of [REDACTED] represents approximately [REDACTED]. *Id.*; CX-0759C; CX-0726C.

C. A Bond is Warranted

1. Nature of Competition

There is direct competition between Complainants' DI Product and Respondents' Accused Products. Tr. (Mulhern) at 502:11-19. As a result, the evidence suggests that there is a likelihood of injury to Complainants in the form of displaced sales and/or price undercutting during the Presidential Review Period. *Id.*

Oura considers both Ultrahuman and RingConn to be direct competitors. Tr. (Chapp) at 103:6-11. Both Ultrahuman and RingConn likewise identify Oura as a competitor to the Respondents' Accused Products. Tr. (Mulhern) at 505:3-12; Tr. (Wu) at 784:3-5; Tr. (Kumar) at 680:8-11; CX-0933C at CX-0933C.0018; CX-0923 at CX-0923.0012.

Moreover, evidence from the Respondents' online stores suggest that their products are competitive alternatives to the Oura Ring. In particular, the Ultrahuman website notes that for those interested in purchasing the Ultrahuman Ring AIR, they can "trade in your old smart ring,

including an Oura [R]ing, for credit up to \$100 towards your new Ultrahuman Ring AIR.” CX-0823 at CX-0823.0001. Specifically, a potential buyer can trade in a third-generation Oura Ring for \$50 credit toward a new Ultrahuman Ring AIR and a second-generation Oura Ring for \$25 credit. Moreover, when Ultrahuman launched the Ultrahuman Ring AIR, it described it as the “lightest smart ring in the market,” directly comparing it with the weight of the Oura Ring. CX-0838 at CX-0838.0002.

Furthermore, third-party reviewers and technology experts have recognized and described the Complainants’ DI Product and the Respondents’ Accused Products as direct competitors. For example, WIRED, a magazine about emerging technologies, referred to the Ultrahuman Ring AIR as clearly positioned as a competitor for the third generation Oura Ring and technically very similar. Tr. (Mulhern) at 506:3-6; CX-0867; CX-0860 at CX-0860.0002. As further evidence, Tom’s Guide, a source for technology reviews, directly compared the Oura Ring and Ultrahuman Ring AIR along several dimensions including price, distribution availability, design and fit, health and fitness tracking, sleep tracking, battery life, and their respective corresponding mobile applications. CX-0866; CX-0922.

Industry coverage has similarly compared RingConn and Oura as competitors. As one example, in its review of the RingConn Smart Ring, WIRED noted: “Right now, the RingConn Ring is the most affordable option with a broadly similar feature set to the Oura.” CX-0859 at CX-0859.0008. Further, Digital Trends, a provider of technology news, described the RingConn Smart Ring as a “challenger” to the Oura Ring. Tr. (Mulhern) at 506:6-11; CX-0864; CX-0851 at CX-0851.0007. Digital Trends added that the RingConn Smart Ring is “the same basic concept as the Oura Ring, but there are some key differences. The RingConn Smart Ring is not only cheaper, but it also doesn’t have a monthly subscription attached to it, making it more financially tempting.”

CX-0851. Digital Trends further compared the Oura Ring and RingConn Smart Ring along several attributes, including comfort, sleep tracking, fitness tracking, battery life, and price. *Id.* at CX-0851.0001.

In addition to these individual comparisons, ZDNet, a global technology news site, featured the Oura Ring, Ultrahuman Ring AIR, and RingConn Smart Ring in its list of the best smart rings. CX-0861. In that list, ZDNet named the Oura Ring as the “[b]est smart ring overall,” but described the Ultrahuman Ring AIR as the “[b]est subscription-free smart ring” and the RingConn Smart Ring as the “[b]est Oura Ring alternative.” Tr. (Mulhern) at 506:12-14; CX-0880 at CX-0880.0002. Furthermore, Complainants’ DI Product and Respondents’ Accused Products are often sold through the same distribution channels. Tr. (Chapp) at 103:9-16.

2. Price Differential

The price differential approach is appropriate for determining the bond in this case. Tr. (Mulhern) at 502:11-24. There is systematic price undercutting of the Oura Ring and Application by the Respondents’ Accused Products, based on average pricing data provided by the parties. This price undercutting becomes even more pronounced when taking into account the different business models of the Complainant and Respondents.

Specifically, although the Oura Ring, Ultrahuman Ring R1, Ultrahuman Ring AIR, and RingConn Smart Ring all function in conjunction with an app that displays the data and insights retrieved by the smart ring, only the Accused Products include full access to this app and data as part of the purchase price of the ring. Tr. (Chapp) at 95:3-21 (describing the subscription pricing); CX-0703; CX-0915. Oura requires an additional monthly payment for an Oura Membership for access to all the functionality, which provides access to a member’s data as well as insights and recommendations on the Oura App. CX-0572; CX-0893. Without the Oura Membership, users are unable to access insights based on data collected from the Oura Ring through the Oura App. or

certain features such as women’s health tracking. Tr. (Chapp) at 95:14-21; CX-0572. Because the Oura Membership is “the only way to unlock access to all of your daily health insights,” the Oura Membership is important for the product to operate and for users to get the full benefits of the Oura Ring. CX-0572.

The subscription – or lack thereof – is a competitive differentiator in the marketplace. For example, Digital Trends described the RingConn Smart Ring as being not only less expensive than the Oura Ring, “but it also doesn’t have a monthly subscription attached to it, making it more financially tempting.” CX-0851 at CX-0851.0001. Similarly, ZDNet described the Ultrahuman Ring AIR as the “[b]est subscription-free smart ring.” CX-0880 at CX-0880.0002.

In conducting a price differential analysis for the DI Product and the Accused Products, the relative price of the ring devices, as well as a price comparison based on the total cost of ownership, which for the Oura Ring includes the cost of the Oura Membership. To calculate the impact of the Oura Membership fee on the overall price of the DI Product, it is notable that more than half of Oura consumers remain subscribers to the Oura Membership after three years. Tr. (Chapp) at 97:7-9; Tr. (Mulhern) at 508:7-22; CX-0724C; CX-0581C at tab ‘Membership.’ [REDACTED]

[REDACTED] Tr. (Mulhern) at 509:6-18; CX-0933C at CX-0933C.0018. The cost of the Oura Membership is either \$5.99 per month or \$69.99 per year. Tr. (Mulhern) at 508:7-22; Tr. (Chapp) 95:5-10; CX-0572. Accounting for the average subscription length and the less-expensive annual cost option, the effective price of Oura Membership is approximately \$210 over this three-year period. Tr. (Mulhern) at 508:7-22; CX-0760C; CX-1146; and CX-0760C at CX-0760C.00002 with Gen. 4 pricing.

a. Average Selling Prices

Based on the sales data produced by the parties, the calculated the average selling price

(“ASP”) of the Oura Ring, Ultrahuman Ring AIR, and RingConn Smart Ring and that the ASPs of the Accused products are consistently lower than the DI Product. CX-0923; CX-0915; CX-0927; CX-0851; CX-0933C. Specifically, the ASP of the Oura Ring Gen. 4 is \$349 to \$499. Tr. (Mulhern) at 508:10-16. Ultrahuman’s average price for the Ultrahuman Ring AIR was [REDACTED]. RingConn’s average price for the RingConn Smart Ring Gen. 2 was [REDACTED], and RingConn’s Gen. 1 was [REDACTED]. Tr. (Mulhern) at 510:8-11. CX-0760C; CX-0572; CX-0538; CX-0703.

These comparisons, however, understate the true amount of price undercutting as they fail to account for the total cost of the Oura Membership, estimated at an additional \$210 per user. Tr. (Mulhern) at 508:11-22.

b. Public Retail Prices

Given that the DI Product and Accused Products are sold through a variety of distribution channels, including through distributors as well as direct-to-consumers, an analysis of ASPs could potentially be affected by differences in the proportion of total sales made through these different channels. CX-0762C. Each of the parties sells their products through their respective online stores and their online storefronts on Amazon. CX-0703.

This evidence shows substantial price undercutting both when comparing the rings alone as well as taking into consideration the effective cost of the Oura membership.

The total cost of ownership of the Oura Ring Gen. 4 with its various finishes ranges from \$559 to \$709. Tr. (Mulhern) at 510:2-7. In contrast, there is only a single price for the Ultrahuman Ring AIR on its website, of \$349, regardless of finish. Tr. (Mulhern) at 510:8-9; CX-0760C-CX-0761C; CX-0760C at CX-0760C.0002. RingConn Gen. 1 is priced at \$279 and RingConn Smart Ring Gen. 2 is priced at \$299. Tr. (Chapp) at 103:17-19; Tr. (Mulhern) at 510:10-11; CX-0760C-CX-0761C; and CX-0760C.0002. There is also discounting. For example, on July 8, 2024, RingConn offered a \$50 discount such that the RingConn Smart Ring was priced at \$229. CX-

0703. Similarly, Ultrahuman offers discounts ranging from \$25 to \$85 if a user trades in certain models of Oura Ring or Ultrahuman R1 or Ring AIR. CX-0538 at CX-0538.0012.

Even setting aside these discounts and ignoring the cost of the Oura Membership, these data suggest that Respondents' Accused Products are generally priced lower than the Oura Ring, although the Ultrahuman Ring can be priced higher, depending on the specific finish of the Oura Ring. CX-0760C.

3. Summary

The comparison suggests a range of price differentials for the DI Product relative to the Ultrahuman Accused Product of ■ percent to ■ percent. Tr. (Mulhern) at 502:21-503:1; CX-0760C-CX-0761C. Similarly, for the DI Product relative to the RingConn Accused Product Gen. 1, the price differential ranges from ■ percent to ■ percent, and for RingConn's Gen. 2 Accused Product the range is ■ to ■ percent. Tr. (Mulhern) at 503:1-3; 510:18-511:10; CX-0760C; CX-0761C; CX-0572; CX-0703; CX-0538; CX-0703.

XI. PUBLIC INTEREST

Despite raising the issue of Public Interest, Respondent Ultrahuman presented no expert testimony in support of its contentions. Oura, on the other hand, showed that there would be no negative effect on the consumer in the event of an exclusion order.

A. U.S. Customers and Competitive Conditions

There are a number of alternatives available to U.S. consumers in the event of a LEO remedy, including not only the Oura Ring, but also other smart rings and more generally, other fitness tracking devices. Tr. (Mulhern) at 512:16-513:3. The availability of these products suggests that the proposed remedy would not have a material adverse impact on U.S. consumers or competitive conditions in the U.S. marketplace.

2. Alternatives Provided by Oura

As noted previously, there is direct competition between the DI Product and the Accused Products. The Oura Ring would be an alternative product available to U.S. consumers in the event of the requested remedy. Further, Oura has sufficient capacity to enable it to satisfy any increase in demand resulting from an exclusion order in this Investigation, as described further below.

The sales data produced by the parties indicates that sales of the Accused Products by both Respondents together account for only a fraction of Oura's sales of the DI Product. More specifically, the sales data indicates that Ultrahuman Ring Air and the RingConn smart rings together amount to [REDACTED] units annualized. Tr. (Mulhern) at 514:15-19; CX-0763C; CX-0581C; CX-0028C. Over the most recent six-month period for which Oura sales data were available (Q1 through Q2 FY 2024), the [REDACTED] [REDACTED] RingConn and Ultrahuman's Accused Products. Tr. (Mulhern) at 514:3-11.

Oura currently [REDACTED] levels. Tr. (Chapp) at 100:24-101:1. Oura manufactures in [REDACTED]. *Id.* at 100:17-19. Oura has [REDACTED] the fourth-generation Oura Ring [REDACTED]. Specifically, Oura brought its [REDACTED] [REDACTED] next generation of the Oura Ring. Oura's manufacturer [REDACTED] is able to produce approximately [REDACTED] of the fourth-generation Oura Ring each month, or approximately [REDACTED]. Tr. (Mulhern) at 514:12-14; CX-0801C at tab [REDACTED]. Oura has [REDACTED] for its fourth-generation Oura Rings to [REDACTED], or approximately [REDACTED]. Tr. (Chapp) at 100:20-23. CX-0763C; CX-0723C; CX-0581C; CX-0725C; CX-0028C; CX-0726C; CX-0764C; CX-0801C.

To the extent Respondents argue Oura has capacity constraints that would undermine its

ability to satisfy demand in the event an exclusion order issues, because “[a]s of at least March 2024, Oura was unable to meet demand for its own product, despite allegedly having significant quantities of inventory[,]” (Respondents’ Pre-Hearing Br., EDIS Doc ID. 837576, at 434) those “delays” were an isolated incident in which Oura experienced an unexpected increase in demand of selected Oura Ring sizes. Tr. (Chapp) at 101:4-13; Tr. (Mulhern) at 515:5-516:2.

Tr. (Chapp) at 101:4-13; More generally, the media coverage of a potential Oura Ring shortage can be misleading as it focused inappropriately on a particular size or finish and fail to account for inventory available at one of Oura’s distributors such as Amazon or Best Buy. Tr. (Chapp) at 140:23-141:18.

3. Third-Party Alternative Smart Rings

There are several other suppliers of smart rings, other than Oura, RingConn, and Ultrahuman, available in the U.S. marketplace that similarly would provide U.S. consumers with alternatives in the event a remedy issues. These include the recent launch of the first smart ring from one of the world’s largest consumer electronics companies, Samsung.

In July 2024, Samsung entered the smart ring marketplace with its launch of the Galaxy Ring. Tr. (Mulhern) at 517:14-16; CX-0583. The Galaxy Ring is a “lightweight ring equipped with sensors designed for health monitoring 24 hours a day[.]” CX-0583 at CX-0583.0002. Specifically, the Galaxy Ring is equipped with three sensors, allowing the ring to monitor different health and fitness capabilities including sleep, menstrual cycle, heart rate, and exercise. *Id.*; CX-0879. Also, the Galaxy Ring records health data and communicates information to the user through the Samsung Health App. Tr. (Mulhern) at 517:17-23; CX-0876; CX-0879. The Galaxy Ring is available for purchase at \$399.99 with no additional subscription fee for the Samsung Health application. CX-0919; CX-0879.

Industry experts predict that Samsung “will be able to establish the smart ring market on a larger scale than other competitors.” CX-0583 at CX-0583.0004; Tr. (Mulhern) at 517:24-518:6. Samsung has “global reach and significant marketing budget which will raise awareness of a new product category that most consumers will not have even heard of[.]” CX-0583 at CX-0583.0005. Further, an analyst at IDC explained that with the introduction of the Galaxy Ring, Samsung “helps expand the wearables portfolio and opens the door to new services in the future[.]” *Id.* Since its release of the Galaxy Ring, Samsung has experienced unexpected demand and has told its suppliers to increase production by 150 percent due to demand CX-0902 at CX-0902.0001. Based on consumer demand for pre-orders of the Galaxy Ring, Samsung announced it would expand capacity to more than 600,000 units in the remainder of 2024. *Id.* This evidence suggests that Samsung *alone* would have sufficient capacity to cover any increase in demand for smart rings following the issuance of a remedy in this Investigation.

In addition to the Galaxy Ring, numerous third parties also offer alternative smart rings that also would be available in the event of an exclusion order. This includes, for example, Circular, a Respondent in this Investigation prior to reaching a settlement and license agreement with Oura. Initial Determination Granting Joint Motion for Partial Termination of the Investigation as to Circular SAS Based Settlement and Limiting Service, July 9, 2024 (Order No. 12).

Circular describes the Circular Ring as being the “slimmest and most powerful tracker.” CX-0985; Tr. (Mulhern) at 518:7-11. Others consider Circular one of the “best smart rings[.]” and identify a number of alternative rings including the Amazfit Helop Ring and Evie Ring. Tr. (Mulhern) at 518:12-18; CX-0877; CX-0878; CX-0874; CX-0880.

4. Third-Party Alternative Fitness Trackers

In addition to smart rings offered by Oura and alternative suppliers, smartwatches and fitness tracking devices would represent alternatives available to U.S. consumers in the event of a

remedy in this Investigation. Tr. (Mulhern) at 520:3-24; CX-1387C at 67:22-68:2; CX-0933C at CX-0933C.0018.

a. Smartwatches

There are numerous suppliers of smartwatches to the U.S. market and these suppliers account for substantial sales.

Between Q2 2021 and Q1 2023, the total U.S. smartwatch market segment consisted of over 50 suppliers, many of which offer multiple product models. CX-0524C at tab ‘Total.’ In particular, the evidence shows Samsung, Fitbit, and Garmin collectively represent approximately 85 percent of the smartwatch market segment, based on reported data on the smartwatch market segment that excludes the Apple Watch. CX-0765C; CX-0524C. In total, U.S. smartwatch suppliers reported nearly \$1.9B in revenue from Q2 2021 to Q1 2023, excluding revenue from the Apple Watch. *Id.* For example, the Samsung Galaxy Watch4 is one of Samsung’s leading smartwatch products. CX-0524C at tab ‘Total.’

Similar to the DI Product, the Galaxy Watch4 is equipped with sensors such that a user can monitor various health and wellness metrics such as blood pressure, AFib irregular heartbeat, blood oxygen level, and body composition. *Id.* The Galaxy Watch4 is compatible with a user’s smartphone where the user can track this data through metrics such as the Sleep Score, similar to the DI Product. *Id.* Further, the Galaxy Watch4, as a smartwatch, is also equipped with additional functionalities such as receiving phone calls. *Id.*

The vívoactive 4 GPS is one of Garmin’s leading smartwatch products. *Id.* Similar to the Samsung Watch 4, and unlike the Accused Products, the vívoactive 4 GPS smartwatch includes aC screen allowing the user to be notified of incoming calls, text messages, social media updates, and calendar reminders; and offers a contactless payment solution through Garmin Pay. *Id.*

The smartwatch market segment data produced in this case does not reflect sales of the

Apple Watch, which is one of the most popular smartwatch brands in the U.S. CX-0912 at CX-0912.0001. Apple introduced the Apple Watch Series 9 in September 2023 and launched the Apple Watch Series 10 in September 2024. CX-0908; CX-0911. Similar to the Accused Products, the Apple Watch Series 9 tracks a user's health and wellness metrics including daily activity, fitness, heart rhythms, sleep schedule, and menstrual cycles. CX-0909. Similar to the Garmin and Samsung watches, the Apple Watch Series 9 also includes a variety of other features such as the ability to make phone calls, find other Apple devices, and keep track of daily tasks. *Id.* Although Apple does not provide data on sales of individual products, analysts estimate Apple's 2022 Apple Watch revenue to be approximately \$20 billion. CX-0926 at CX-0926.0002.

b. Fitness Trackers

Between Q2 2021 and Q1 2023, the total U.S. fitness tracker market segment consisted of over 50 suppliers, many of which offer multiple product models. CX-0523C at tab 'Total.' In particular, as of Q1 2023, Fitbit and Garmin collectively represented nearly 90 percent of the total fitness tracker segment, and, as was the case with smartwatches, each offers numerous models of fitness trackers, with different features designed to meet the specific needs of different consumers. *Id.* In total, U.S. fitness tracker suppliers reported over \$805.2 million in revenue from Q2 2021 to Q1 2023. CX-0766C.

B. Domestic Production of Like or Similar Articles

Because none of the products-at-issue currently are manufactured in the U.S., the imposition of an exclusion order in this Investigation would have no impact on U.S. production activities.

Specifically, the Oura Ring is manufactured in [REDACTED]. Tr. (Chapp) at 100:16-19. The Ultrahuman Ring AIR is manufactured in India and the RingConn Smart Ring is manufactured in China. Tr. (Kumar) at 703:5-9; Tr. (Wu) at 764:22-24.

Exclusion of the Accused Products from the U.S., with or without a corresponding shift in demand to the DI Product, would have no impact on U.S. production activities associated with these products. Tr. (Mulhern) at 522:3-9.

The requested remedy may increase domestic production activities associated with Respondents' Accused Products. Specifically, in April 2024, Ultrahuman announced plans to open a manufacturing facility in the U.S., with capacity to manufacture 200,000 rings annually. CX-0526. Tr. (Mulhern) at 522:10-17. Thus, in the event that Ultrahuman responds to an exclusion order by shifting production of the Accused Products to the U.S., the proposed remedy could lead to an increase in U.S. production activities.

C. Public Health and Welfare

As discussed above, Oura would have sufficient capacity to meet any additional demand for smart ring products and there would be a variety of alternative fitness tracking devices available to U.S. consumers including rings offered by third parties as well as smartwatches and other fitness trackers.

To the extent Respondents assert that exclusion of the Accused Products raises concerns of public health and welfare, neither the DI Product nor the Accused Products are approved by the U.S. Food and Drug Administration as medical devices. CX-0899; Tr. (Kumar) 728:8-10; Tr. (Wu) Tr. 782:14-783:12.

Furthermore, the DI Product and Accused Products have similar capabilities, and there is unlikely to be an impact on public health and welfare as a result of any shift in demand from the Accused Products to the DI Product. Tr. (Mulhern) at 524:3-12. For example, when comparing the Oura Ring and Ultrahuman Ring AIR, both rings track a user's sleep, heart rate, skin temperature, and movement, among other metrics. CX-0922 at CX-0922.0004-7; CX-0916 at CX-0916.0008. The Ultrahuman Ring AIR, as stated by WIRED, is "[c]learly positioned as a competitor for the

third-generation Oura, the Ultrahuman Ring Air is technically very similar. It can track your sleep, recovery, and movement to offer insights and tips via an app on your smartphone.” CX-0860 at CX-0860.0002. Similarly, as noted by Digital Trends, the RingConn Smart Ring is “the same basic concept as the Oura Ring, but there are some key differences. The RingConn Smart Ring is not only cheaper, but it also doesn’t have a monthly subscription attached to it, making it more financially tempting.” CX-0851 at CX-0851.0001. Further, both Oura Ring and RingConn Smart Ring are able to monitor and collect data about a user’s sleep patterns. CX-0851 at CX-0851.0004. When tracking sleep, both the Oura Ring and RingConn Smart Ring monitor sleep time, sleep stage data, heart rate, blood oxygen levels, and skin temperature, among other features. *Id.*

Respondents may argue that an exclusion order affecting their products will have an adverse effect on health and welfare because the rings are currently being used in medical research. But Ultrahuman’s rings are involved in two ongoing medical studies in the U.S., both of which are expected to conclude in the next two quarters. Tr. (Mulhern) at 524:33-525:7. There isn’t much information or evidence to support Respondents’ arguments that their products are needed for medical studies. Tr. (Mulhern) at 525:13-24. The exclusion of the Accused Products would not adversely impact future medical research at least due to the overlapping functionality of the Accused Products, the Oura Ring, and the other smart rings and fitness tracking devices available in the marketplace.

XII. CONCLUSION

Oura respectfully requests that Respondents have violated Section 337 and a recommendation for entry of a limited exclusion order, cease and desist order, and bond during the Presidential review period, and that there is no public interest issues preventing issuance of requested remedy.

Dated: January 7, 2025

Respectfully submitted,

/s/ Janine A. Carlan

Janine A. Carlan
Jasjit S. Vidwan
Taniel E. Anderson
Richard J. Berman
Bradford C. Frese
Michael J. Baldwin
Margherita A. Capolino
ARENTFOX SCHIFF LLP
1717 K Street, NW
Washington, DC 20006
Tel: 202-857-6000

Christopher S. Schultz
ARENTFOX SCHIFF LLP
800 Boylston Street 32nd Floor
Boston, MA 02199
Tel: 617-973-6100

Heather M. Zimmer
ARENTFOX SCHIFF LLP
1301 Avenue of the Americas, 42nd Floor
New York, NY 10019
Tel: 212-484-3900

Matthew T. Wilkerson
ARENTFOX SCHIFF LLP
233 South Wacker Drive, Suite 7100
Chicago, IL 60606
Tel: 312-258-5500

Ehsun Forghany
Carol A. Hanna Girgis
ARENTFOX SCHIFF LLP
44 Montgomery St., 38th Fl.
San Francisco, CA 94104
Tel: 415-757-5500

*Counsel for Complainants Ouraring, Inc.
and Oura Health Oy*

CERTIFICATE OF WORD COUNT

The undersigned certifies that this brief complies with the word limitation set forth in the Ground Rule 14.3. The certified word count includes footnotes and excludes caption, table of contents or authorities, words in figures, the word count certificate, signature block, and the certificate of service.

Certified word count: 23,858

/s/ Janine A. Carlan
Janine A. Carlan

Certain Smart Wearable Devices,
Systems, and Components Thereof

Inv. No.: 337-TA-1398

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing COMPLAINANTS' INITIAL POST-HEARING BRIEF was served upon the following as indicated below on January 7, 2025:

The Honorable Lisa R. Barton Secretary to the Commission U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W. Washington, DC 20436	Via EDIS
The Honorable Doris Johnson Hines Administrative Law Judge U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W. Washington, DC 20436	Via Box and email: JohnsonHines1398@usitc.gov
USITC Office of Unfair Import Investigations Whitney Winston, Esq. Commission Investigative Attorney U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W. Washington, DC 20436	Via Box and email: whitney.winston@usitc.gov
Counsel for Respondent RingConn LLC and Shenzhen Ninenovo Technology Ltd. Robert M. Breetz JONES DAY 901 Lakeside Ave. Cleveland, OH 441144	Via email: rbreetz@jonesday.com RingConnITC1398@jonesday.com

Counsel for Ultrahuman Healthcare Pvt. Ltd., Ultrahuman Healthcare Ltd., and Ultrahuman Healthcare SP, LLC John T. Moehringer CADWALADER, WICKERSHAM & TAFT LLP 200 Liberty Street New York, NY 10281 Timothy J. Murphy CARLSON, GASKEY & OLDS, P.C. 400 West Maple Rd., Suite 350 Birmingham, MI 48009	Via email: john.moehringer@cwt.com tmurphy@cgolaw.com ultrahumanitc@cgolaw.com
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/s/ Janine A. Carlan

Janine A. Carlan

*Counsel for Complainants Ouraring, Inc.
And Oura Health Oy*

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing COMPLAINANTS' INITIAL POST-
HEARING BRIEF was served upon the following as indicated below on January 10, 2025:

The Honorable Lisa R. Barton Secretary to the Commission U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W. Washington, DC 20436	Via EDIS
The Honorable Doris Johnson Hines Administrative Law Judge U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W. Washington, DC 20436	Via Box and email: JohnsonHines1398@usitc.gov
USITC Office of Unfair Import Investigations Whitney Winston, Esq. Commission Investigative Attorney U.S. INTERNATIONAL TRADE COMMISSION 500 E Street, S.W. Washington, DC 20436	Via Box and email: whitney.winston@usitc.gov
Counsel for Respondent RingConn LLC and Shenzhen Ninenovo Technology Ltd. Robert M. Breetz JONES DAY 901 Lakeside Ave. Cleveland, OH 441144	Via email: rbreetz@jonesday.com RingConnITC1398@jonesday.com

Counsel for Ultrahuman Healthcare Pvt. Ltd., Ultrahuman Healthcare Ltd., and Ultrahuman Healthcare SP, LLC John T. Moehringer CADWALADER, WICKERSHAM & TAFT LLP 200 Liberty Street New York, NY 10281 Timothy J. Murphy CARLSON, GASKEY & OLDS, P.C. 400 West Maple Rd., Suite 350 Birmingham, MI 48009	Via email: john.moehringer@cwt.com tmurphy@cgolaw.com ultrahumanitc@cgolaw.com
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/s/ Janine A. Carlan
Janine A. Carlan

*Counsel for Complainants Ouraring, Inc.
And Oura Health Oy*