

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

OURARING, INC.,
Patent Owner.

IPR2024-01077
Patent 10,139,859 B2

Before, NEIL T. POWELL, ELIZABETH M. ROESEL, and
MICHAEL A. VALEK, *Administrative Patent Judges*.

ROESEL, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, “Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1, 11, and 13–20 of U.S. Patent No. 10,139,859 B2 (Ex. 1001, “the ’859 Patent”). Ouraring, Inc. (“Patent Owner”) filed a Preliminary Response (Paper 7, “Prelim. Resp.”).

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314 (2024); 37 C.F.R. § 42.4(a) (2024). An *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). For the reasons that follow, we determine that the reasonable likelihood standard is met, and we institute an *inter partes* review.

This is not a final decision as to the patentability of any challenged claim. Any final decision will be based on the full record developed during trial.

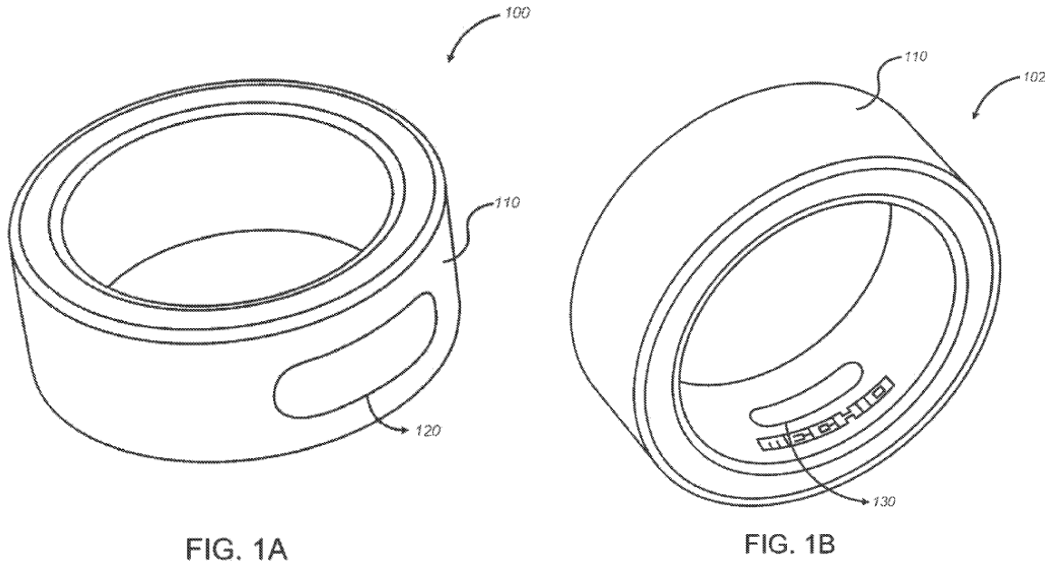
II. BACKGROUND

A. *The ’859 Patent (Ex. 1001)*

The ’859 Patent is titled “Wearable Computing Device” and was issued November 27, 2018, based on an application filed February 27, 2017, that asserts the benefit of provisional and nonprovisional applications, the earliest of which was filed November 29, 2013. Ex. 1001, codes (22), (45), (54), (60). The ’859 Patent discloses a wearable computing device (“WCD”) in the shape of a ring that can be worn on the finger of a user for

extended periods of time, take measurements, and perform various functions. Ex. 1001, 1:35–40.

Figures 1A and 1B of the '859 Patent are reproduced below.



Figures 1A and 1B are perspective views of WCD 110. Ex. 1001, 4:57–61, 9:11–14. “[T]he WCD 110 can include the exterior window 120 on its exterior wall for input/output data transmission and reception, battery recharge, or status indication. The WCD 110 can also include the interior window 130 on its interior wall for various monitoring or sensing activities.” *Id.* at 9:44–49.

Figure 4 of the '859 Patent is reproduced below.

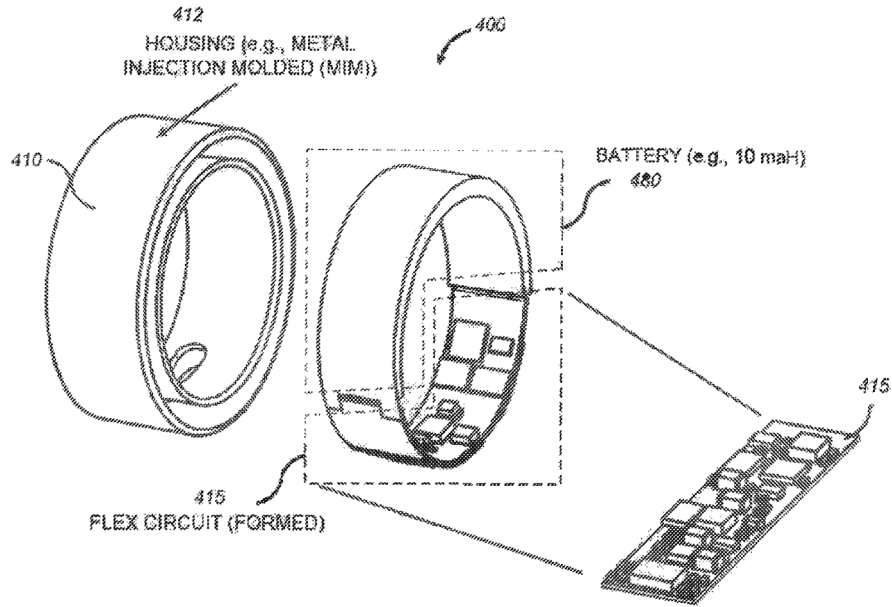


FIG. 4

Figure 4 is an exploded view of WCD 410 illustrating battery 480 and flexible printed circuit board (“PCB”) 415, which are configured to fit inside the U-shape of ring housing 412 of the WCD. Ex. 1001, 5:10–12, 15:50–53, 16:8–10.

Figures 7 and 8 of the ’859 Patent are reproduced below.

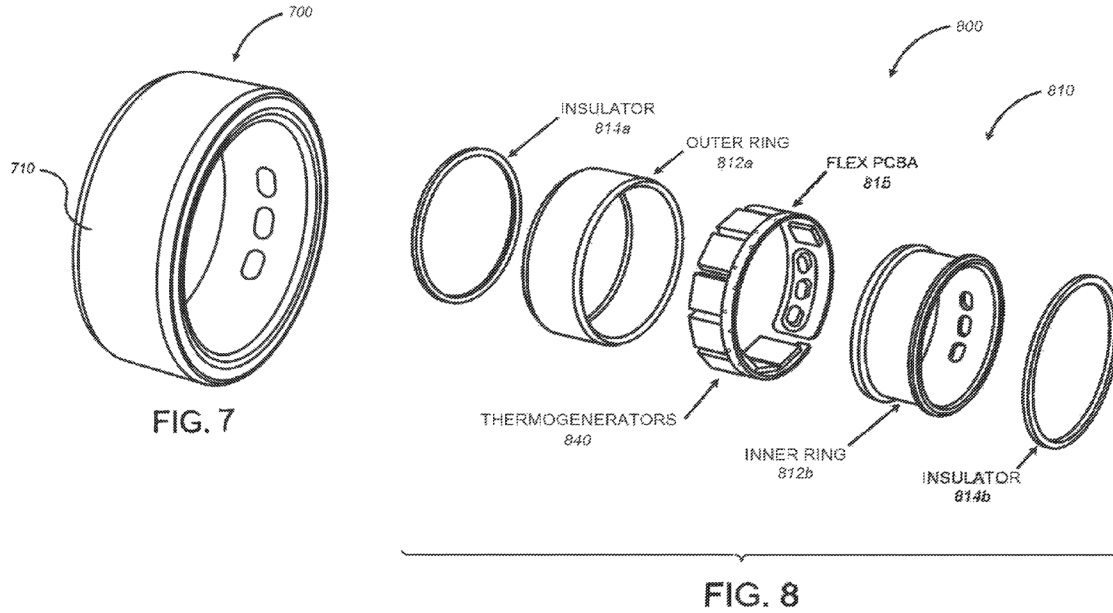


Figure 7 is a perspective view of a WCD, and Figure 8 is an exploded view of the WCD of Figure 7. Ex. 1001, 5:19–23, 14:51–53. Figures 7 and 8 illustrate a design of the housing for the WCD, where the ring includes outer ring 812a, inner ring 812b, and insulators 814a and 814b. *Id.* at 14:53–56. Also shown in Figure 8 are flexible PCBA 815 and thermogenerators 840. *Id.* at Fig. 8. According to the '859 Patent, a thermoelectric generator charges a battery of the WCD by the difference between a wearer's body temperature and the ambient temperature. *Id.* at 14:47–51, 14:57–64.

B. Illustrative Claim

Petitioner challenges claims 1, 11, and 13–20 of the '859 Patent, of which claims 1, 11, and 14 are independent. Claim 1 is illustrative of the claimed subject matter and is reproduced below:

1. A system, comprising:
a wearable ring computing device, the ring computing device including a housing, the housing having an interior bounding member and an exterior bounding member, the interior bounding member and the exterior bounding member being

configured for being coupled together to form a waterproof cavity there between;

a curved battery positioned within the cavity, the curved battery having an arc approximating a corresponding arc of the ring housing;

a sensor module, the sensor module positioned within the cavity and proximate the battery, the sensor module comprising one or more sensors, the one or more sensors comprising one or more of a pedometer, an accelerometer, a gyroscope, a heart rate sensor, a pulse oximeter, a sleep monitor, an internal measurement unit, a thermometer, a Galvanic skin response sensor, and an electrocardiogram, the one or more sensors being configured to sense a change in a condition of a wearer of the ring;

a flexible printed circuit board positioned within the cavity proximate one or both of the curved battery and the sensor module, the flexible printed circuit board portion comprising:

a processor, the processor configured for determining one or more of a number of steps taken, a quality of sleep, a heart rate, blood pressure, and body temperature of a user of the ring computing device; and

a memory, associated with the processor for storing data; and

a semiconducting light element disposed at least partially within the housing.

Ex. 1001, 44:31–62.

C. Asserted Challenges and Evidence

Petitioner asserts the following challenges to patentability.

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1, 11, 13–20	103	Yuen, ¹ Mestas ²
1, 11, 13–20	103	Schröder, ³ Mestas

Pet. 4. Petitioner submits the Declaration of Brian W. Anthony, Ph.D.
Ex. 1002.

III. ANALYSIS

A. *Asserted Prior Art*

1. *Yuen (Ex. 1006)*

Yuen discloses a portable biometric monitoring device having a physical size and shape adapted to couple to the user's body. Ex. 1006, codes (54), (57). The device includes a housing, a band to secure the monitoring device to the user's body, and a physiological sensor within the housing. *Id.* at code (57). The sensor generates data representative of a physiological condition, such as the user's heart rate. *Id.*

Figure 3 is reproduced below.

¹ Ex. 1006, US 8,954,135 B2, issued February 10, 2015 (“Yuen”). Petitioner asserts that Yuen qualifies as prior art under 35 U.S.C. § 102(a)(2) based on its filing date of June 24, 2013. Pet. 9.

² Ex. 1010, US 2014/0244009 A1, published August 28, 2014 (“Mestas”). Petitioner asserts that Mestas qualifies as prior art under 35 U.S.C. § 102(a)(2) based on its provisional filing date of February 22, 2013. Pet. 10.

³ Ex. 1007, US 10,303,867 B2, issued May 28, 2019 (“Schröder”). Petitioner asserts that Schröder qualifies as prior art under 35 U.S.C. § 102(a)(2) based on its foreign priority date of July 25, 2013. Pet. 12.

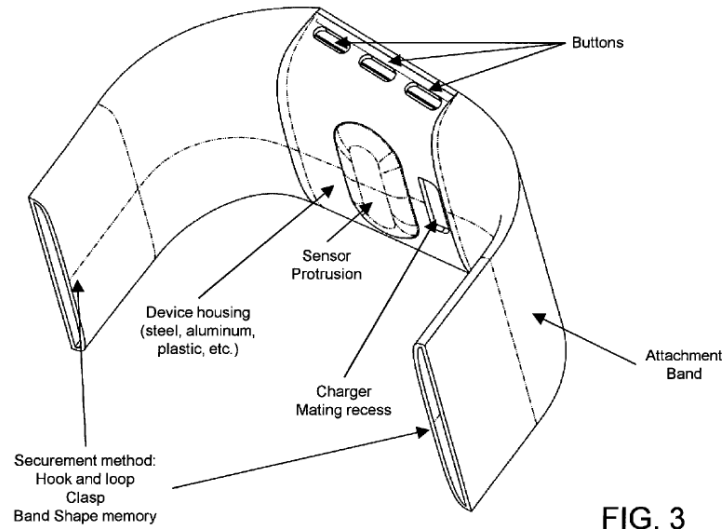


Figure 3 shows a portable biometric monitoring device, including an attachment band, a device housing, a sensor protrusion, and a recess for mating a charger and/or data transmission cable. Ex. 1006, 2:18–22, Fig. 3. According to Yuen, the protrusion firmly maintains the sensor in contact with the skin of the user. *Id.* at 2:22–25.

Figure 5 is reproduced below.

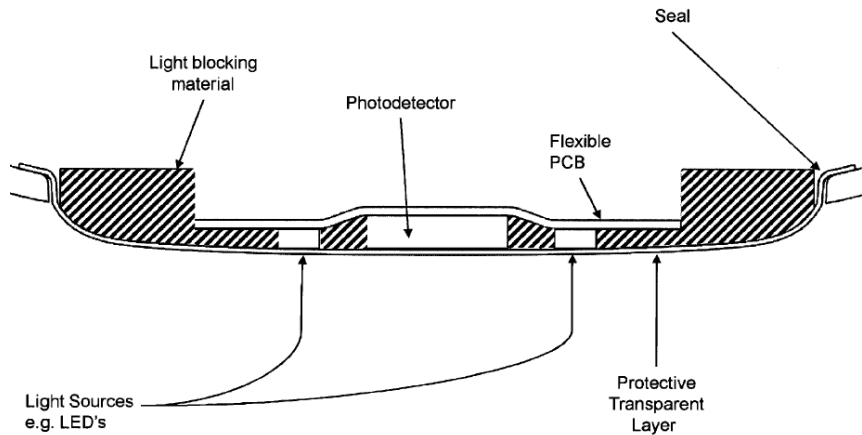


Figure 5 shows a cross section of a sensor protrusion of a portable biometric monitoring device, including light sources and a photodetector mounted on a flexible PCB. Ex. 1006, 2:29–39.

Yuen discloses that a user may wear the biometric monitoring device “on their wrist or ankle (or arm or leg)” and further discloses that “[t]he biometric monitoring device . . . may also be integrated and worn in a necklace, chest band, bra, patch, glasses, earring, or toe band.” Ex. 1006, 24:4–6, 4:35–37.

2. *Mestas (Ex. 1010)*

Mestas discloses a physical activity monitoring method and system. Ex. 1010, code (57).

Figure 1 is reproduced below.

FIG. 1



Figure 1 shows a person utilizing an athletic performance monitoring and feedback system 1. Ex. 1010 ¶¶ 9, 148. System 1 includes wearable device 10 for monitoring the user’s activity. Device 10 includes a sensor such as an accelerometer. *Id.* ¶ 148.

Figure 6 is reproduced below.

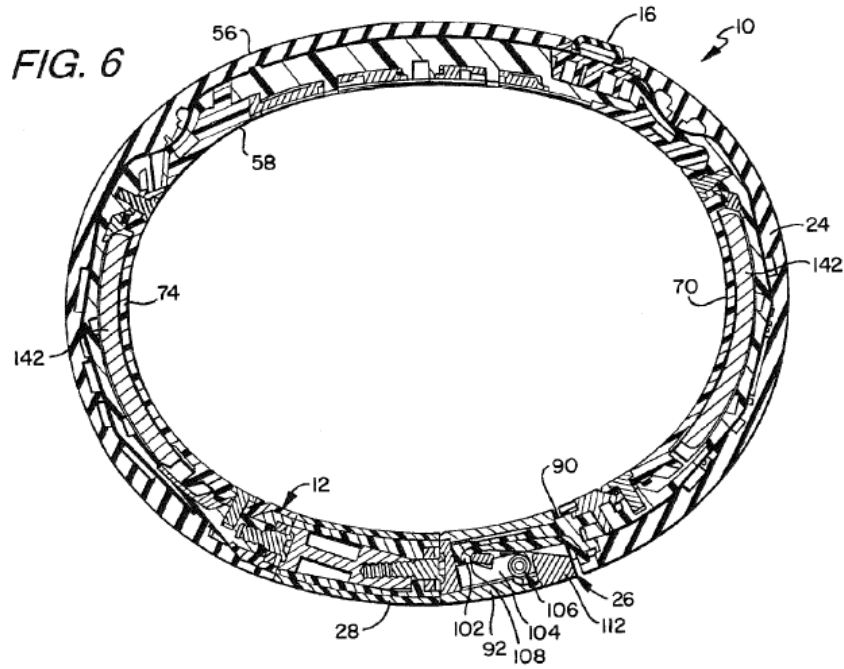
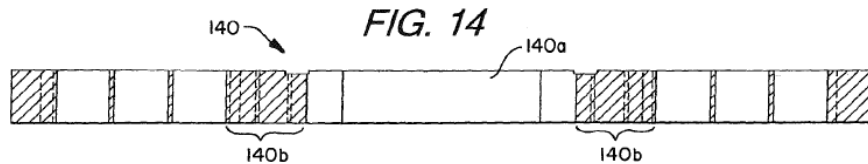


Figure 6 is a cross-section of wearable device 10 including housing 12 in the form of a wearable band such as a wristband. Ex. 1010 ¶¶ 15, 150, 151. Device 10 includes a controller, input button 16, a display, and an indicator system. *Id.* ¶ 150. Housing 12 includes an inner spine member having compartments for power supplies, outer encasement member 24, and fastening mechanism 26. *Id.* ¶ 151. The controller includes batteries 142, which “have a curvilinear or curved configuration.” *Id.* ¶¶ 163, 168.

Figures 14, 15, and 16 are reproduced below.



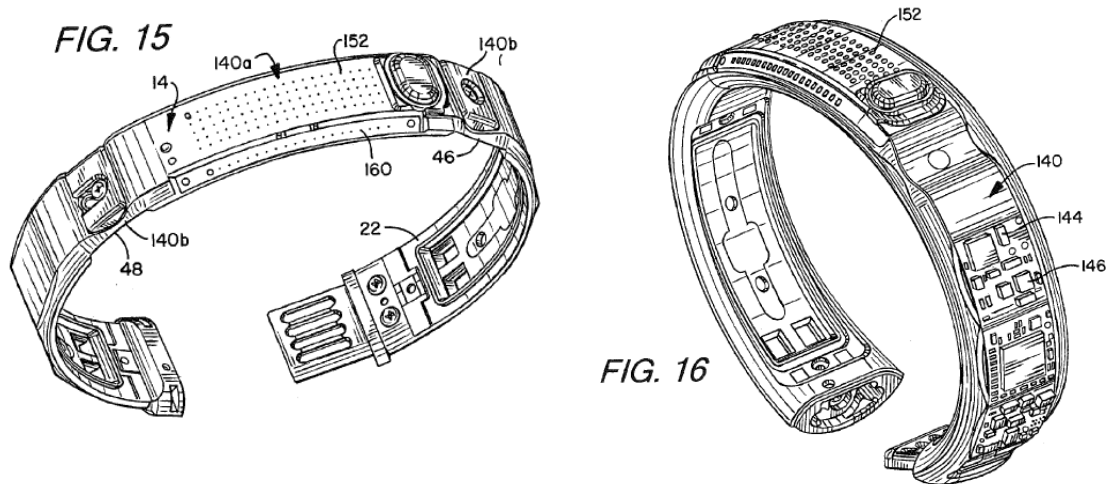


Figure 14 shows flexible PCB member 140, and Figures 15 and 16 show PCB member 140 wrapped around and mounted to spine member 22.

Ex. 1010 ¶¶ 25, 26, 164. PCB member 140 is part of controller 14 and supports various components of the controller, including antenna assembly 144, sensor assembly 146, processing units, data storage memory components, and connectors. *Id.* ¶¶ 163, 165.

3. Schröder (Ex. 1007)

Schröder discloses an external secure unit comprising a memory, a processor, and an interface for sending and receiving data to and from a communication device, such as a smartphone. Ex. 1007, code (57), 1:5–11, 1:42–47, 1:64–67. The external secure unit stores security-relevant data necessary for executing an application program in the communication device. *Id.* at code (57), 1:56–61. A “finger-ring” can be employed as an external secure unit. *Id.* at 1:61–64.

Schröder’s Figures 1 and 2 are reproduced below.

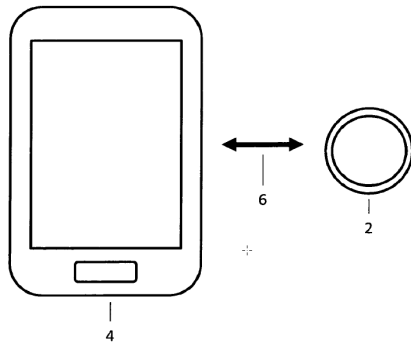


Fig. 1

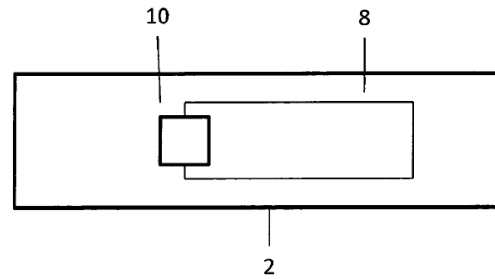


Fig. 2

Figure 1 shows finger-ring 2 as an exemplary external secure unit and smartphone 4 as a communication device, and Figure 2 shows a cross section through finger-ring 2. Ex. 1007, 3:39–44, 3:57–59, 4:58–60.

Schröder discloses a method for authentication by means of finger-ring 2 and smartphone 4. Ex. 1007, 3:59–61. According to Schröder, “finger-ring 2 is worn by a user e.g. permanently on the finger,” which is advantageous as an external secure unit because the ring “cannot be taken away or employed without authorization or get lost.” *Id.* at 3:61–62, 4:15–18. Finger-ring 2 and smartphone 4 are interconnected via contactless communication connection 6, e.g., an NFC (near field communication) connection. *Id.* at 3:64–66, 4:18–22. All security-relevant data necessary for executing applications on smartphone 4, such as email, Facebook, and banking, are stored only on finger-ring 2, not on the smartphone. *Id.* at 4:3–5, 4:10–15.

As schematically indicated in Figure 2, antenna coil 8 and chip or chip module 10 are located in finger-ring 2. Ex. 1007, 4:60–62. These devices are used to communicate with an NFC reader, such as an RFID (radio frequency identification) reader. *Id.* at 5:12–18, 5:49–53.

Schröder’s Figure 3 is reproduced below.

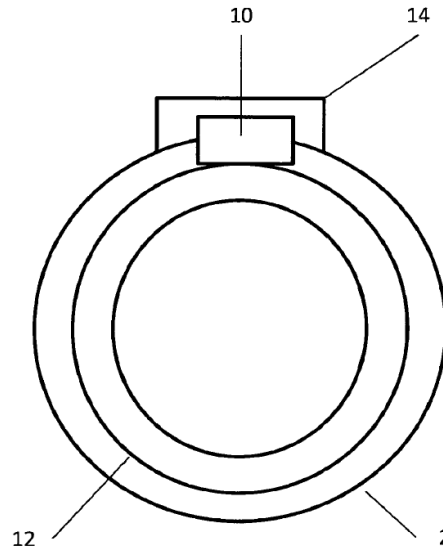


Fig. 3

Figure 3 shows a cross section through an external secure unit in the form of finger-ring 2 with a replaceable chip module 10. Ex. 1007, 3:45–46, 8:54–56. Inlay 12 is inside finger-ring 2 and serves as a carrier for antenna coil 8. *Id.* at 8:56–58. As shown in Figure 3, chip module 10 is inserted into a recess of finger-ring 2. *Id.* at 8:58–59. Chip module 10 is protected by cover 14, which has a hinged or threaded connection to the finger-ring 2. *Id.* at 8:60–63. Chip module 10 is electroconductively connected to antenna coil 8 on inlay 12. *Id.* at 8:63–66. “Advantageously, the chip module 10 is located in a module holder, in order that the contacts of the chip module 10 are properly interconnected to the contacts of a corresponding antenna coil 8.” *Id.* at 9:4–7. According to Schröder, the chip module 10 in Figure 3 is “arranged in particular replaceably,” but “[a]lternatively, the chip module 10 can . . . be firmly connected to the finger-ring 2.” *Id.* at 9:1–4; *see also id.* at 9:13–15 (“Alternatively, it is possible to connect the chip module 10 permanently to the contacts of the inlay 12, e.g. by soldering, crimping, gluing, etc.”).

In a “further embodiment example,” Schröder describes external secure unit 2 as having “an energy storage device, e.g., an accumulator or a battery” that is “connected to the chip module 10.” Ex. 1007, 11:46–67.

Schröder’s Figures 4 and 5 are reproduced below.

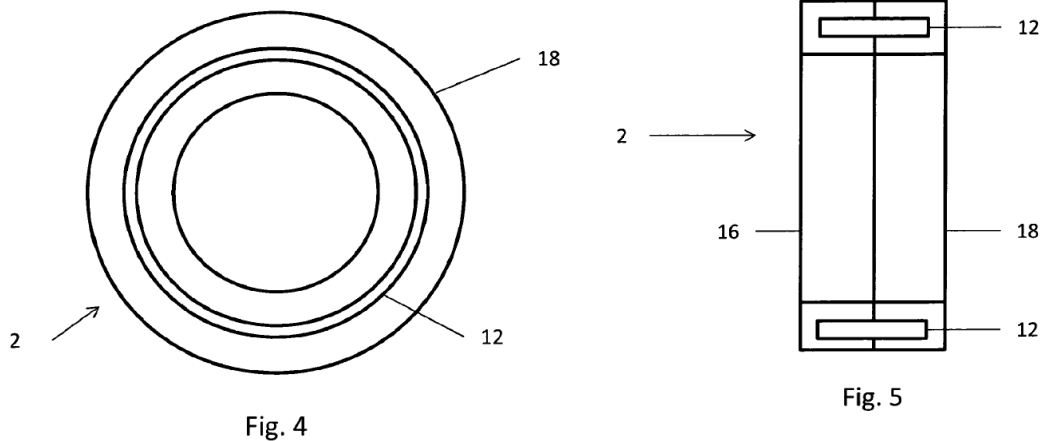
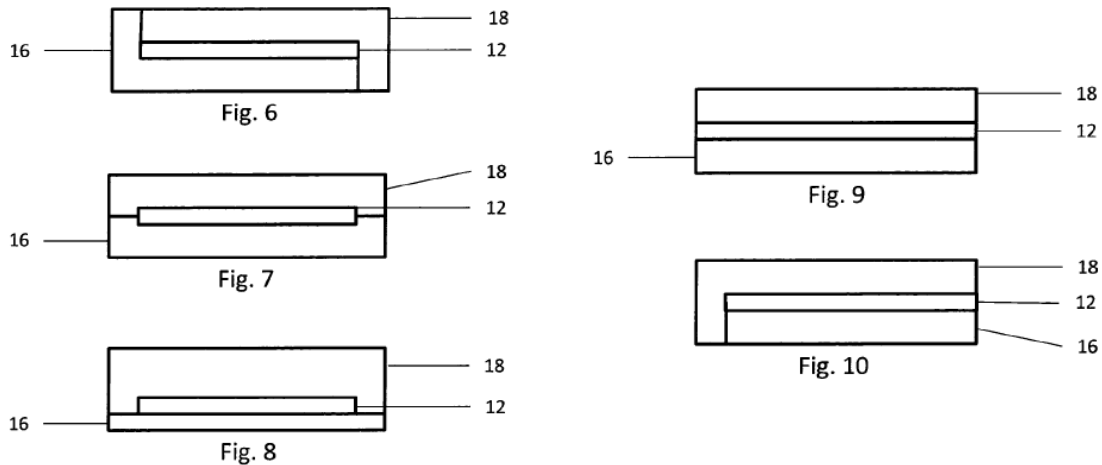


Figure 4 shows a longitudinal cross-section through finger-ring 2 as an exemplary external unit, and Figure 5 shows a cross-section of the finger-ring of Figure 4. Ex. 1007, 3:47–50, 12:4–7. Figure 4 shows one half 18 of finger-ring 2, and Figure 5 shows two ring halves 16 and 18. *Id.* at 12:5–8. As shown in Figures 4 and 5, ring halves 16 and 18 have a recess into which inlay 12 is inserted. *Id.* at 12:8–9. Components 16 and 18 of finger-ring 2 are interconnected in such a way that the connection can be undone in order to insert or exchange inlay 12. *Id.* at 12:20–26. Inlay 12 consists of a flexible carrier material, with antenna coil 8 and chip module 10 connected to each other on the inlay. *Id.* at 12:28–32.

Schröder’s Figures 6 to 10 are reproduced below.



Figures 6 to 10 show different cross sections through a finger-ring, which along with Figures 4 and 5, show “possible construction variants of external secure unit 2 in the form of finger-ring 2.” Ex. 1007, 12:1–3; *see also id.* at 3:51–52; 12:43–45 (describing Figures 6–10). In Figures 6 to 10, finger-ring 2 has ring-shaped components 16 and 18, with inlay 12 arranged between the components. *Id.* at 12:43–55.

According to Schröder, “inlay 12 can have at least one chip module 10 with at least one antenna coil 8, with at least one further electronic device, e.g. a display, optionally being arranged on the inlay 12.” Ex. 1007, 12:61–65.

B. Request for Denial under 35 U.S.C. § 325(d)

Patent Owner argues that we should exercise discretion to deny institution under 35 U.S.C. § 325(d). Prelim. Resp. 54–58.

1. Legal Standard

When deciding whether to institute an *inter partes* review, we “may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d).

In applying § 325(d), we use a two-part framework: (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of the first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential). We also consider the non-exclusive factors set forth in *Becton, Dickinson and Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017) (precedential in relevant part), which “provide useful insight into how to apply the framework” under § 325(d). *Advanced Bionics*, Paper 6 at 9. Those non-exclusive factors include:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson, Paper 8 at 17–18. “If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art or arguments

previously were presented to the Office, then factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office.”

Advanced Bionics, Paper 6 at 10.

2. Discussion

Part I of the *Advanced Bionics* framework asks whether the same or substantially the same art was previously presented to the Office or whether the same or substantially the same arguments were previously presented to the Office. *Advanced Bionics*, Paper 6 at 8.

Petitioner contends that the Petition “presents arguments not considered during prosecution” and that the asserted prior art “was not before the PTO during prosecution.” Pet. 7.

Patent Owner argues that Schröder, Mestas, and Yuen are either duplicative or cumulative of the prior art before the Examiner and that Petitioner’s arguments are similar to the Examiner’s rejections that Patent Owner overcame during prosecution of the ’859 patent and related patents. Prelim. Resp. 7–10, 55–58 (citing Exs. 2005–2015);⁴ *see also id.* at 32, 34, 38, 39, 43, 48, 53 (relying on the Office’s determinations during prosecution of the ’859 Patent and related patents as evidence in opposition to Petitioner’s obviousness challenges).

We determine that part I of the *Advanced Bionics* framework is not satisfied. The prosecution history of the ’859 Patent includes a single office action. Ex. 1004, 445–454. The Examiner rejected the originally-filed

⁴ Patent Owner’s exhibit number citations are often incorrect. In this Decision, we cite to the correct exhibits numbers without further noting Patent Owner’s mistakes.

claims over one or more of Raghunath,⁵ Ajagbe,⁶ Baldoni,⁷ and Mills.⁸ *Id.* According to Patent Owner, Raghunath and Ajagbe disclose wrist-worn devices. Prelim. Resp. 7–8; Exs. 2004, 2005. Baldoni also discloses a wrist-worn device, and Mills discloses solar collectors. Exs. 3001, 3002. During prosecution, Patent Owner argued that that none of these references discloses a ring computing device. Ex. 1004, 471–76 (Applicant’s remarks distinguishing amended claims from the cited references). In contrast, it is undisputed that Schröder discloses a finger-ring that includes a chip module and may also include a battery and a biometric sensor. Ex. 1007, 3:57–59, 4:58–62, 9:54–55, 11:46–48; Pet. 13–14 (summarizing Schröder); Prelim. Resp. 14–17 (same). We determine that Schröder is more pertinent to the challenged claims than any of the references applied by the Examiner during prosecution of the ’859 Patent.

Patent Owner argues that Mestas is equivalent to Weast,⁹ which was “used in a rejection in a related sister patent.” Prelim. Resp. 55 (citing Exs. 2008, 2009). Patent Owner’s prosecution history evidence is dated

⁵ Ex. 2004, US 2005/0062454 A1, published March 24, 2005 (“Raghunath”).

⁶ Ex. 2005, US 2012/0293107 A1, published November 22, 2012 (“Ajagbe”).

⁷ Ex. 3001, US 5,135,220, issued August 4, 1992 (“Baldoni”). Baldoni discloses a golf ball position marker apparatus to be worn on a golfer’s wrist. Ex. 3001, code (57), 1:42–48, 1:54–61. The Examiner cited Baldoni for teaching a ferrous element. Ex. 1004, 450–51 (mistakenly referring to Mills in rejection based on Raghunath and Baldoni).

⁸ Ex. 3002, US 2009/0056703 A1, published March 5, 2009 (“Mills”). Mills discloses solar energy collector systems, more particularly, linear Fresnel reflector solar arrays. Ex. 3002, code (57), ¶¶ 2, 7. The Examiner cited Mills for teaching of lens focal length. Ex. 1004, 453.

⁹ Ex. 2006, US 2013/0106603 A1, published May 2, 2013 (“Weast”).

after issuance of the '859 Patent (Exs. 2008–2011) and fails to show that the Examiner considered Weast (or its equivalent, Mestas) when assessing the claims of the '859 Patent. Patent Owner further argues that a Chinese counterpart to Weast is cited on the front of the '859 Patent. Prelim. Resp. 55 (citing Ex. 2007). Exhibit 2007 is a Chinese language document, and there is no evidence that the Examiner considered an English translation.

Patent Owner argues that Schröder is cumulative of Vescovi,¹⁰ which is cited on the front of the '859 patent and was deemed the “closest prior art” by the Examiner in a related application. Prelim. Resp. 57 (quoting Ex. 2009). Again, Patent Owner’s evidence concerning a related application is dated *after* issuance of the '859 Patent. Ex. 2009. Although Vescovi is included on an Information Disclosure Statement (“IDS”) (Ex. 1004, 162), it was neither applied in a rejection nor meaningfully discussed during prosecution of the '859 Patent. *See Becton, Dickinson*, Paper 8 at 17 (factor (c): “the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection”). Furthermore, the Examiner’s consideration of Vescovi *preceded* Applicant’s submission of extensively rewritten claims that were subsequently allowed. *Compare* Ex. 1004, 461, 465 (Examiner’s initials dated June 9, 2018), *with id.* at 478–483 (amended claims dated July 29, 2018). Even if Vescovi had been evaluated against the allowed claims during prosecution of the '859 Patent, we find that Schröder is not substantially the same as Vescovi for the reasons discussed below.

Patent Owner argues that Vescovi discloses “a ring that includes a structural member 102 that ‘houses one or more electronic components

¹⁰ Ex. 2013, US 2015/0277559 A1, published October 1, 2015 (“Vescovi”).

(such as a processor, memory, and sensors’)” and that Vescovi’s ring includes a battery, a biometric sensor, and a communication transmitter Prelim. Resp. 57–58 (citing Ex. 2013 ¶¶ 6, 32, 56, Fig. 7). However, Patent Owner does not assert that Vescovi discloses interior and exterior bounding members coupled together to form a waterproof cavity, with a battery and a flexible printed circuit board positioned within the cavity, as recited in the independent claims of the ’859 Patent.

Moreover, in a co-pending proceeding involving a related patent, Patent Owner argues that Vescovi does not disclose the structure of the housing recited in the claims of U.S. Patent No. 11,868,178 B2, including “internal and external housing components, an inner circumferential cavity with a battery positioned and shaped to fit inside the cavity and including a circuit board disposed within the interior and exterior component and extending through a portion of the cavity.” PGR2024-00030, Paper 7 at 9, 64 (citing Ex. 1004, 1314 (prosecution history of the ’178 Patent)). In the related proceeding, Patent Owner asserts that Vescovi discloses “a unitary structure, not internal and external housing components as claimed.” *Id.* at 64.

In contrast to Vescovi, Schröder discloses finger-ring 2 consisting of ring-shaped components 16 and 18, with inlay 12 arranged between the components. Ex. 1007, 12:43–55, Figs. 6–10. Petitioner contends that ring-shaped components 16 and 18 in Schröder’s Figures 7 and 8 correspond to interior and exterior bounding members and that it would have been obvious to make the recess between them a waterproof cavity. Pet. 54–55, 66–67, 73 (addressing claims 1, 11, and 14).

Because part I of the *Advanced Bionics* framework is not satisfied, we do not reach part II of the framework.

C. Legal Standards for Inter partes Review

In an *inter partes* review, “the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016); *see also* 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”); 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged claim is to be construed and where each element of the claim is found in the prior art relied upon).

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when presented, objective evidence of nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Additionally, the obviousness inquiry typically requires an analysis of “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)). Petitioner cannot satisfy its burden of proving obviousness by employing “mere conclusory statements,” but “must instead articulate

specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

D. Level of Ordinary Skill in the Art

At this stage of the proceeding, there is no dispute about the level of ordinary skill in the art. Based on the testimony of Petitioner’s declarant, we determine that a person of ordinary skill in the art (“POSA”) would have had a four-year degree in electrical engineering, mechanical engineering, biomedical engineering, optical engineering, or related field of study, and two years of experience in academia or industry studying or developing physiological monitoring devices such as non-invasive biosensors. A POSA would have been familiar with sensor system design and signal processing. A higher level of education or skill can substitute for less experience, and vice versa. Ex. 1002 ¶ 29.

We find that the level of ordinary skill in the art, as articulated above, is consistent with the level of technical understanding and competence reflected in the ’859 Patent Specification and the asserted prior art references.

E. Claim Construction

In an *inter partes* review, we apply the same claim construction standard as would be used by a district court to construe a claim in a civil action involving the validity or infringement of a patent. 37 C.F.R. § 42.100(b). Under that standard, claim terms are given their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history of record. *Id.*; *Phillips*

v. AWH Corp., 415 F.3d 1303, 1312–19 (Fed. Cir. 2005) (en banc); *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012). “The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting *Vivid Techs., Inc. v. Am. Sci. Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

We agree with the parties that it is not necessary for us to provide an express construction for any claim term for purposes of determining whether to institute an *inter partes* review. Pet. 8; Prelim. Resp. 21. Nevertheless, there appears to be a dispute about the meaning of the term, “ring,” which we discuss below for purposes of providing guidance.

The preamble of claim 11 recites a “wearable ring computing device.” Ex. 1001, 45:37. Claim 1 recites the same term in the body of the claim. *Id.* at 44:32. The preamble of claim 14 recites a “ring computing device.” *Id.* at 46:10.

Petitioner and its declarant interpret the term “ring” broadly enough to encompass Yuen’s toe band. Pet. 18 (addressing claims 1 and 11); Ex. 1002 ¶¶ 160–162 (same); *see also* Pet. 37 (addressing claim 14 preamble by cross-referencing contentions for claims 1 and 11); Ex. 1002 ¶ 190 (same).

Patent Owner argues that the preamble is limiting and the term “ring” is limited to a finger ring. Prelim. Resp. 21–22, 27.

On this record, we agree with Patent Owner that the term “ring” in the preamble of claims 11 and 14 is limiting. During prosecution of the ’859 Patent, Applicant amended the claims to recite a “ring” and relied on that recitation to distinguish the amended claims from the prior art cited by the Examiner. Ex. 1004, 468–483. Thus, the term “ring” in the preamble

of claims 11 and 14 is limiting. *See Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808–09 (Fed. Cir. 2002) (“[C]lear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention.”); *see also Storage Tech. Corp. v. Cisco Sys., Inc.*, 329 F.3d 823, 827–28, 835 (Fed. Cir. 2003) (patentee’s reliance on “forwarding device” in the preamble to distinguish a reference during prosecution supported the conclusion that the language limited the claim.).

On this record, however, it is unclear whether the term “ring” is limited to a finger ring, i.e., a ring that is worn on the finger of a user. In support of its interpretation that the term is not limited to a ring worn on a person’s finger, Petitioner cites the following disclosures in the ’859 Patent:

Although the WCD of the present disclosure is depicted as a ring that can be worn on the finger of a user, other shapes, designs, and form factors can be utilized for the WCD. For example, the WCD can be in the form of a wrist band, bracelet, necklace, earring, or any other type of wearable accessory. In this regard, references to the finger of a user in the present application can be considered to apply to other portions of a human body depending on the form of the WCD, such as wrist, neck, ear, etc.

Ex. 1001, 8:53–61; *id.* at 43:47–48 (“The functions and structure of the device lend themselves to both a ring version and a wrist-worn version.”); *see* Pet. 18 (citing these disclosures).

Although the column 8 disclosure quoted above tends to broaden the scope of the invention beyond a finger ring, it is unclear whether that disclosure supports construing the term “ring” more broadly than a finger ring. The column 43 disclosure quoted above tends to show that a ring and a wrist-worn device are distinct embodiments.

Patent Owner argues that “[t]he only ‘ring’ disclosed in the ’859 patent is a finger ring, and the patent broadly describes the invention in the context of a finger ring.” Prelim. Resp. 22 (citing Ex. 1001, code (57), 1:33–40, 15:53–55). We agree with Patent Owner that the cited disclosures pertain to a finger ring embodiment. However, Patent Owner’s argument at this stage does not sufficiently address the disclosure Petitioner cites in column 8 or Dr. Anthony’s related testimony (*see* Ex. 1002 ¶¶ 161–162).

Neither party submits any argument or evidence pertaining to whether the term “ring” has an accepted meaning in the relevant art. Neither party relies on Applicant’s prosecution history arguments (Ex. 1004, 471–76) as support for their argument about whether the term “ring” is limited to a finger ring.

Accordingly, and particularly in view of the broadening disclosure in column 8 of the ’859 Patent, we do not at this stage resolve the parties’ dispute about whether the term “ring” is limited to a finger ring. The parties’ dispute presents a close issue of claim construction that is best resolved on a fully developed record. We encourage the parties to address these issues in their post-institution briefs.

F. Petitioner’s First Challenge

Petitioner challenges claims 1, 11, and 13–20 as unpatentable over Yuen and Mestas. Pet. 14–49. Patent Owner opposes. Prelim. Resp. 24–38. At this stage of the proceeding, the parties’ dispute turns, in large part, on a threshold issue of claim construction, namely whether the term “ring” is broad enough to encompass Yuen’s toe band, as argued by Petitioner

(Pet. 18), or whether the term “ring” is limited to a finger ring, as argued by Patent Owner (Prelim. Resp. 22, 27).

Petitioner contends that a POSA “would have understood that Yuen’s ‘toe band’ is a wearable ring device.” Pet. 18. Petitioner does not present an alternative argument that a finger ring would have been obvious in view of Yuen and Mestas. Patent Owner’s counterarguments rely, for the most part, on its proposed construction of “ring” as limited to a finger ring. Prelim. Resp. 24–38. For example, Patent Owner argues that “neither Yuen nor Mestas, alone or in combination, disclose or suggest a finger ring having a ‘curved battery’ recited in claims 1, 11, and 14.” *Id.* at 34.

Because the parties’ dispute turns on an unresolved issue of claim construction that would benefit from further development at trial and in view of our determination that Petitioner’s second challenge meets the threshold for institution an *inter partes* review, we do not determine whether Petitioner’s first challenge meets that threshold.

G. Petitioner’s Second Challenge

Petitioner challenges claims 1, 11, and 13–20 as unpatentable over Schröder and Mestas. Pet. 49–77. Patent Owner opposes. Prelim. Resp. 39–54. At this stage of the proceeding, the parties’ disputes focus on independent claims 1, 11, and 14 and the issues discussed below.

1. Reasons to Combine

Petitioner contends that a POSA “would have been motivated to combine Schröder with Mestas because they are analogous art and teach improvements to the same type of devices—wearable biometric sensing devices having similar structural components.” Pet. 49. Petitioner contends that a POSA would have been motivated to combine Schröder’s finger ring

with various teachings in Mestas, including waterproofing sealant, a curved battery, and additional biometric monitoring. Pet. 50–51.

Patent Owner contends that a POSA would not have combined Schröder and Mestas because (1) “Schröder is an RFID security device while Mestas is ‘[a] physical activity monitoring method and system,’” and (2) “Schröder is a finger ring while Mestas fails to include fingers in a long list of possible locations” for wearing its device. Prelim. Resp. 39.

After considering the parties’ arguments and evidence, we determine that Petitioner’s showing of reasons to combine Schröder and Mestas is sufficient for purposes of granting institution of an *inter partes* review.

Although general similarities between the references are usually not by themselves sufficient to show a reason to combine particular teachings, Petitioner here also provides more particularized contentions, such as a “POSA would have been motivated to implement Mestas’s waterproofing sealant techniques into Schröder’s finger ring to prevent liquids from entering into the device’s housing, and thus increase durability and prevent any damage, including water damage, to the internal components in the device.” Pet. 50 (citing Ex. 1002 ¶ 211).

Patent Owner points to differences between Schröder and Mestas that must be taken into account when assessing whether a POSA would have had a reason to combine their teachings. Prelim. Resp. 39; *see Adidas AG v. Nike, Inc.*, 963 F.3d 1355, 1359 (Fed. Cir. 2020) (“Fundamental differences between the references are central to th[e] motivation to combine inquiry.”). Nevertheless, we are persuaded that Petitioner’s contentions concerning reasons to combine (Pet. 49–52) provide a sufficient basis on which to institute review.

2. *Curved Battery*

Independent claims 1, 11, and 14 each recites a curved battery.
Ex. 1001, 44:38–40, 45:44, 46:17–18.

Petitioner contends that Schröder and Mestas each disclose a battery, that Mestas’s battery has a curved shape, and that it would have been obvious to implement Mestas’s curved battery in Schröder’s finger ring. Pet. 51, 56.

Patent Owner argues that Schröder and Mestas do not disclose or suggest a ring having a curved battery and that Petitioner has not shown a motivation to combine. Prelim. Resp. 40–43.

After considering the parties’ arguments and evidence, we determine that Petitioner’s showing for the curved battery limitation is sufficient for purposes of granting institution of an *inter partes* review.

Petitioner contends that a POSA “would have been motivated to implement Mestas’s curved battery in Schröder’s ‘finger-ring’ because a curved battery allows a larger battery to conform to a ring’s circular shape without stressing the battery or ring housing.” Pet. 51 (citing Ex. 1002 ¶ 241). Petitioner’s contentions are supported by Schröder, which discloses a battery. Ex. 1007, 11:46–50, 11:58–61. Petitioner’s contentions are also supported by Mestas, which discloses batteries having “a curvilinear or curved configuration.” Ex. 1010 ¶¶ 163, 168, Fig. 6.

Patent Owner argues that Schröder does not show or describe the shape or position of a battery, that Mestas’s curved battery is designed for a wristband, and the combination of Schröder and Mestas does not disclose a ring having a curved battery. Prelim. Resp. 40. Patent Owner’s characterizations of the individual references may be correct, but Petitioner’s challenge is based on the combination of Mestas’s curved battery and

Schröder’s finger ring. Pet. 51. *See Janssen Pharms., Inc. v. Teva Pharms. USA, Inc.*, 97 F.4th 915, 928 (Fed. Cir. 2024) (criticizing trial court’s analysis for “tackl[ing] the express statements of each reference one-by-one—identifying each difference or dissimilarity between an individual reference and the claims, but not fully assessing the teachings in toto”).

Patent Owner argues that Schröder teaches away from Petitioner’s proposed modification. Prelim. Resp. 41. That argument is based on Schröder’s description of Figure 3. *Id.* (citing Ex. 1007, 8:60–63). Petitioner, on the other hand, relies on Schröder’s Figures 7 and 8 embodiments to show a cavity where a battery would be positioned. Pet. 54–56.

Patent Owner argues that Schröder has no “recessed compartments” and that Petitioner does not explain how or why Schröder would be modified to include such compartments. Prelim. Resp. 42. That argument appears to be directed to Petitioner’s contention that “it would have been obvious, in view of Mestas, that this [curved] shape allows the batteries to be positioned in recessed compartments 50, 52 without increasing the wearable device’s thickness and to allow for an elongated battery without stressing the battery or the housing.” Pet. 56 (citing Ex. 1002 ¶ 222; Ex. 1010 ¶ 168). Petitioner’s contention is based on Mestas, which discloses batteries positioned in recessed compartments 50, 52. Ex. 1010 ¶ 168. Petitioner does not propose modifying Schröder to include recessed compartments and instead contends that Schröder teaches a cavity akin to Mestas’s recessed compartments where a battery would be positioned. Pet. 54–56.

Patent Owner argues that Petitioner does not explain how Mestas’s batteries would not “increase the wearable device’s thickness.” Prelim. Resp. 42. At this stage, the parties’ contentions raise a factual issue about

whether combining Schröder’s finger-ring with Mestas’s curved battery would have increased the wearable device’s thickness. Pet. 56; Prelim. Resp. 42; Ex. 1002 ¶ 222. This issue would benefit from further development at trial.

Patent Owner argues that Petitioner fails to explain why a POSA would believe the batteries of Mestas would be any improvement to Schröder, which is an RFID security device not intended to take continuous power-consuming measurements. Prelim. Resp. 42. As noted above, the differences between the references must be taken into account in the obviousness analysis. *Adidas*, 963 F.3d at 1359. At the same time, a “reference must be considered for everything that it teaches, not simply the described invention or a preferred embodiment.” *In re Applied Materials, Inc.*, 692 F.3d 1289, 1298 (Fed. Cir. 2012). Schröder teaches that “[t]he energy supply is effected via an electromagnetic field of a reader in whose field the external secure unit 2 is located.” Ex. 1007, 7:12–14; *see also id.* at 17:24–28, 22:30–34 (similar disclosure). Schröder also discloses that the external secure unit employs an energy storage device, such as a battery, and may also include a biometric sensor. *Id.* at 2:43–52, 2:57–59, 9:54–10:29, 11:46–67. For purposes of institution, Petitioner’s contentions are sufficiently supported by Schröder and the other evidence of record.

3. Battery, Sensor Module, and Flexible Printed Circuit Board Positioned Within a Cavity (Claims 1 and 11)

Claims 1 and 11 each recite “a waterproof cavity” and a curved battery, a sensor module, and a flexible printed circuit board, all “positioned within the cavity.” Ex. 1001, 44:35–54, 45:40–53. Claim 1 also recites various types of sensors, including an accelerometer and a heart rate sensor. *Id.* at 44:43–48.

Petitioner contends that Schröder teaches a cavity and that, in view of Mestas, it would have been obvious to make the cavity waterproof, to position a battery and a biometric sensor within the cavity, and to include additional sensors such as an accelerometer and/or a heart rate sensor. Pet. 54–59. Petitioner further contends that Schröder teaches a flexible printed circuit board positioned within the cavity. Pet. 60–61.

Patent Owner argues that Schröder and Mestas, alone or in combination, do not disclose or suggest a ring having a “curved battery positioned within the cavity,” a “sensor module positioned within the cavity and proximate the battery,” or a “flexible printed circuit board positioned within the cavity.” Prelim. Resp. 43–50.

After considering the parties’ arguments and evidence, we determine that Petitioner’s showing for these limitations of claims 1 and 11 is sufficient for purposes of granting institution of an *inter partes* review.

Patent Owner does not dispute Petitioner’s contention that a cavity is taught by Schröder’s Figures 7 and 8, which show a recess between ring halves 16 and 18. Pet. 54–55. Relying on teachings in Mestas, Petitioner contends that a POSA would have been motivated to make the recess a waterproof cavity. Pet. 55 (citing Ex. 1002 ¶ 221; Ex. 1010 ¶ 141). Patent Owner does not dispute that contention. Petitioner implicitly contends that it would have been obvious to position a battery within this waterproof cavity. Pet. 54–56. Petitioner further contends that a POSA “would have understood that Schröder’s biometric sensors, that are connected to chip module 10 by an ‘electronic circuit,’ are positioned within the cavity or ‘recess’ between ring halves 16 and 18, just like chip module 10.” Pet. 57–58 (citing Ex. 1002 ¶ 223; Ex. 1007, 6:44–45, 9:58–59, 9:62–10:4).

Patent Owner argues that Schröder's figures do not depict a battery or a sensor, that Schröder's Figure 3 shows chip module 10 protruding outside the ring, and that Schröder fails to disclose and teaches away from a battery, sensor, or printed circuit board located in a waterproof cavity formed by interior and exterior bounding members. Prelim. Resp. 43–46.

Patent Owner's arguments are based in large part on Schröder's Figure 3 embodiment. Prelim. Resp. 43–46. Petitioner and Dr. Anthony, however, rely on Schröder's Figures 7 and 8 to show a cavity between internal and external bounding members. Pet. 54–55; Ex. 1002 ¶ 220. Figures 7 and 8 appear to depict a different arrangement of elements than the finger-ring in Figure 3, which has “an insertable chip module with a cover.” Ex. 1007, 3:45–46; *compare* Ex. 1007, Fig. 3 (depicting protruding chip module 10 and cover 14) *with* Figs. 7 and 8 (lacking these elements). Furthermore, Petitioner's contention is adequately supported by Schröder, which discloses a biometric sensor connected to chip module 10 and further discloses that chip module 10, antenna coil 8, and “at least one further electronic device” are arranged on inlay 12 in a recess between ring halves 16 and 18. Ex. 1007, 9:58–60, 12:8–9, 12:48–52, 12:62–65, Figs. 7, 8.

We agree with Patent Owner's criticism of Petitioner's showing in at least one respect. Petitioner quotes Schröder's teaching that chip module 10 is “inserted into a recess of the finger-ring 2.” Pet. 57 (citing Ex. 1007, 8:58–59). That particular quote comes from Schröder's description of Figure 3, not Figures 7 and 8, which Petitioner relies on to show a cavity. Pet. 54–55. As Patent Owner correctly observes (Prelim. Resp. 44–45), Schröder's Figure 3 shows chip module 10 inserted into a recess that protrudes from finger-ring 2, not a recess between ring halves 16 and 18, as

Petitioner tries to suggest (Pet. 57–58). As discussed above, however, Petitioner’s contention is adequately supported by Schröder’s Figures 7 and 8 and the description of those embodiments.

Patent Owner argues there is no support for Petitioner’s contention that Schröder’s inlay 12 is a printed circuit board. Pet. 60–61; Prelim. Resp. 46–47. For purposes of institution, Petitioner’s contentions are adequately supported by Schröder, which describes inlay 12 as a “flexible carrier material, e.g. PET, Kapton, etc.” and a “carrier” for the antenna, chip module, and “at least one further electronic component,” as well as Schröder’s Figures 7 and 8, which depict inlay 12 between ring halves 16 and 18. Ex. 1007, 12:8–9, 12:28–29, 12:48–52, 12:61–65, 13:23–25. Patent Owner also argues that Petitioner does not show a motivation to use Mestas’s wrist-sized printed circuit board in Schröder. Prelim. Resp. 47–48. We agree, but observe that the Petition relies on Schröder to teach a flexible printed circuit board sized for a finger ring and Mestas to teach proximity of the PCB to the sensor module and battery. Pet. 60–61.

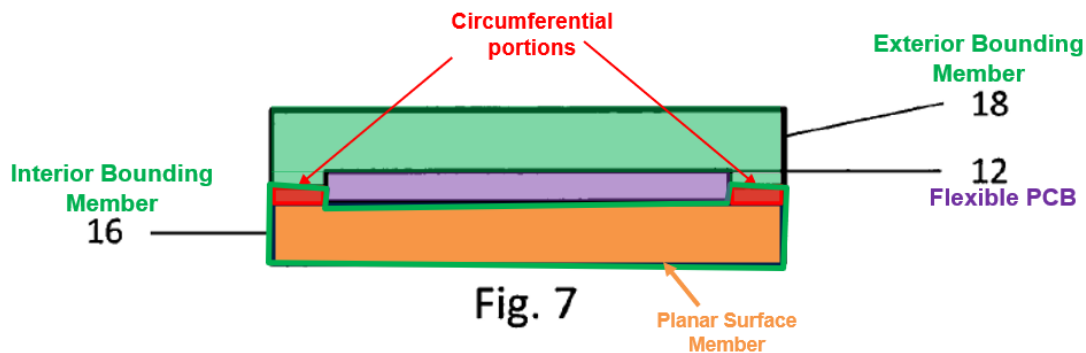
In addition, Patent Owner disputes Petitioner’s contention that a POSA would have been motivated to modify Schröder to include an accelerometer and a heart-rate sensor, as taught by Mestas. Pet. 59; Prelim. Resp. 47. According to Patent Owner, this modification “would add unnecessary functionality and complexity not needed or useful in the applications taught by Schröder.” Prelim. Resp. 47. After considering Patent Owner’s argument, we are satisfied with the sufficiency of Petitioner’s contention for purposes of institution. Pet. 59 (asserted motivation is “to acquire additional biometric data”). Although Schröder may be primarily concerned with security applications, a POSA’s reasons for combining teachings are not limited to the primary problem addressed by

a prior art reference. *KSR*, 550 U.S. at 420 (in considering whether there would have been a reason to combine prior art elements, it is error to look only to the primary problem addressed by a prior art reference).

4. *A Flexible Printed Circuit Board . . . Between Raised Circumferential Portions (Claim 14)*

Claim 14 recites: “the interior bounding member being defined by a planar surface member having a pair of opposed circumferential portions, the opposed circumferential portions being raised above a first portion of the planar surface member.” Ex. 1001, 46:12–16. Claim 14 further recites: “a flexible printed circuit board positioned proximate a first portion of the planar surface of the interior bounding member between the raised circumferential portions.” *Id.* at 46:21–23.

Petitioner contends that Schröder teaches these claim elements (Pet. 66–71) and provides the following annotation of Schröder’s Figure 7.



Schröder’s Figure 7 shows a cross section through a finger-ring. Pet. 71. Petitioner’s annotation identifies ring half 16 as an interior bounding member, ring half 18 as an exterior bounding member, inlay 12 as a flexible PCB, and portions of ring half 16 as a planar surface member and circumferential portions. Pet. 67–68, 71. Referring to annotated Figure 7, Petitioner contends that a POSA “would have understood that inlay 12 (the claimed ‘flexible printed circuit board’ (purple)) is proximate the ‘planar

surface element’ (orange) and the ‘opposed circumferential portions’ (red) because it is ‘inserted’ in the recess between the exterior and interior bounding members.” Pet. 69–70 (citing Ex. 1002 ¶¶ 245, 246; Ex. 1007, 12:45–55).

Patent Owner contends that Schröder does not disclose or suggest “a flexible printed circuit board positioned proximate a first portion of the planar surface of the interior bounding member between the raised circumferential portions,” as recited in claim 14. Prelim. Resp. 50–52.

After considering the parties’ arguments and evidence, we determine that Petitioner’s showing for these limitations of claim 14 is sufficient for purposes of granting institution of an *inter partes* review.

Petitioner’s contention is adequately supported by Schröder, which discloses that, in Figure 7, inlay 12 is arranged between U-shaped components 16 and 18. Ex. 1007, 12:48–50; *see also id.* at 12:10–12 (“The finger-ring 2 consists in principle of at least one component 16, 18 into which at least one inlay 12 is inserted, whereby one component can be a ring half 16, 18.”).

Patent Owner presents essentially the same arguments for claim 14 as discussed in the preceding subsection for claims 1 and 11, again relying on Schröder’s Figure 3 embodiment, rather than the Figure 7 embodiment relied on by Petitioner, and asserting that inlay 12 is not a printed circuit board. Prelim. Resp. 50–51.

5. Processor

Claim 1 recites: “a processor, the processor configured for determining one or more of a number of steps taken, a quality of sleep, a heart rate, blood pressure, and body temperature of a user of the ring

computing device.” Ex. 1001, 44:55–58. Claim 11 recites: “a processor, coupled to the memory, the processor configured for accessing the sensed data from the memory, and for performing one or more analyses on the sensed data” where the sensed data pertains to “a change in a condition of a wearer of the ring.” *Id.* at 45:47–49, 45:55–58.

Petitioner contends that these limitations are taught by Schröder in combination with Mestas, asserting that Schröder teaches a processor and Mestas teaches sensing a change in heart rate. Pet. 62–63.

Patent Owner argues that Schröder does not disclose or suggest a processor that performs the health monitoring functions of claims 1 and 11 and that Petitioner does not provide a reason for applying Mestas to Schröder. Prelim. Resp. 52–53.

After considering the parties’ arguments and evidence, we determine that Petitioner’s showing for the processor limitations of claims 1 and 11 is sufficient for purposes of granting institution of an *inter partes* review.

Petitioner’s contentions are adequately supported by Schröder and Mestas. For example, Petitioner directs us to Schröder’s claim 1 (Pet. 62), which discloses that the external secure unit, e.g., finger-ring, includes “a memory for storing data; [and] a chip module including a processor for processing the data.” Ex. 1007, 27:48–50. Schröder supports Petitioner’s contentions that data stored in memory includes “biometric data,” that the “processor and memory are described to be in the chip module 10,” and that Schröder’s processor processes data from the biometric sensors in order to authenticate the user based on their vein image. Pet. 62–63; Ex. 1007, 10:11–24, 10:59–62, 20:56–58. Petitioner also directs us to Mestas’s disclosures concerning processing “sensed data” and sensing a change in

various health parameters, including heart rate. Pet. 63; Ex. 1010 ¶¶ 148, 201.

Patent Owner argues that Petitioner “provides no reason” that a POSA “would apply Mestas’s health monitoring to the RFID security device of Schröder.” Prelim. Resp. 52–53. We disagree. Petitioner contends that a POSA “would have understood that Schröder’s teachings involving methods of capturing information about finger veins, would be improved by additional biometric monitoring, as taught by Mestas.” Pet. 51. Petitioner’s contention is adequate for purposes of institution.

6. *Enabling Disclosure*

“To render a claim obvious, the prior art, taken as a whole, must enable a skilled artisan to make and use the claimed invention.” *Raytheon Techs. Corp. v. Gen. Elec. Co.*, 993 F.3d 1374, 1380 (Fed. Cir. 2021). “[P]rior art patents and publications enjoy a presumption of enablement, and the patentee/applicant has the burden to prove nonenablement for such prior art.” *Apple Inc. v. Corephotonics, Ltd.*, 861 F. App’x 443, 450 (Fed. Cir. 2021) (nonprecedential; *inter partes* review context); *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1354 (Fed. Cir. 2003). “In general, a prior art reference asserted under § 103 does not necessarily have to enable its own disclosure, i.e., be ‘self-enabling,’ to be relevant to the obviousness inquiry.” *Raytheon*, 993 F.3d at 1380. For example, such a reference could provide the motivation to combine, and then be combined with a reference in which the limitation in question is enabled, or the reference could be used to supply the claim elements if it is enabled by another reference. *Id.* But “if an obviousness case is based on a non-self-enabled reference, and no other prior art reference or evidence would have enabled a skilled artisan to make

the claimed invention, then the invention cannot be said to have been obvious.” *Raytheon*, 993 F.3d at 1377.

Patent Owner argues that “Petitioner has not shown that Schröder in view of Mestas enables one having ordinary skill in the art to make and use . . . the invention without undue experimentation.” Prelim. Resp. 53. According to Patent Owner, “Petitioner fails to explain how one would apply the curved battery teaching of Mestas to Schröder” and “[t]he batteries of Mestas are about twice the diameter of the entire ring of Schröder and specifically designed for a wristband.” *Id.*

At this stage of the proceeding, we rely on a presumption of enablement for the combination of Schröder and Mestas. *Amgen*, 314 F.3d at 1354. To the extent Patent Owner argues nonenablement in its post-institution briefing, we will address that issue in view of the full trial record.

7. *Objective Evidence of Nonobviousness*

“Objective evidence of nonobviousness is an important component of the obviousness inquiry because evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not.” *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012) (internal quotes omitted).

“For objective evidence of secondary considerations to be relevant, there must be a nexus between the merits of the claimed invention and the objective evidence.” *Volvo Penta of the Americas, LLC v. Brunswick Corp.*, 81 F.4th 1202, 1210 (Fed. Cir. 2023). “A showing of nexus can be made in two ways: (1) via a presumption of nexus, or (2) via a showing that the

evidence is a direct result of the unique characteristics of the claimed invention.” *Id.*

Patent Owner contends that its commercial product—the Oura Ring—is “revolutionary” and an “unprecedented success,” with more than 2,500,000 sales. Prelim. Resp. 1–3. According to Patent Owner, the Oura Ring is coextensive with and embodies the ’859 Patent. *Id.* at 3.

We determine that Patent Owner’s argument and evidence concerning commercial success and nexus are best evaluated on a fully developed record.

8. *Conclusion for Petitioner’s Second Challenge*

For these reasons, we determine that Petitioner’s challenge to claims 1, 11, and 13–20 based on Schröder and Mestas meets the threshold for institution of an *inter partes* review. Any final decision will be based on the full record developed during trial, including any objective evidence of nonobviousness.

IV. ORDER

It is

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1, 11, and 13–20 of the ’859 Patent is instituted commencing on the entry date of this Decision; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of trial.

IPR2024-01077
Patent 10,139,859 B2

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