

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MASIMO CORPORATION
Petitioner,

v.

APPLE INC.,
Patent Owner

Case IPR2023-00774
U.S. Patent D883,279

PATENT OWNER'S PRELIMINARY RESPONSE

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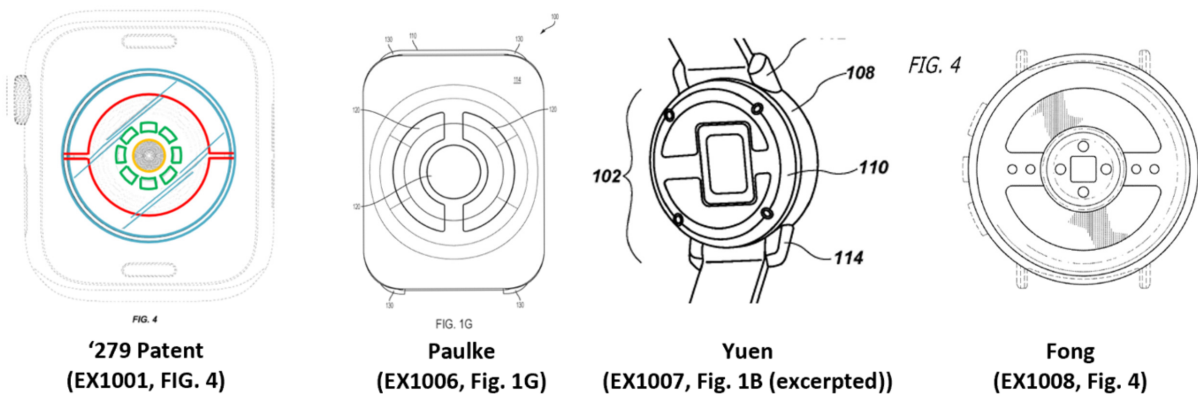
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LIST OF EXHIBITS

Exhibit Number	Description
2001	Declaration of Lance Gordon Rake
2002	Replacement Drawings filed in U.S. Design Patent Application 29/684,822 on April 12, 2019
2003	<i>Aries Watches Watch AW80 – Unisex,</i> https://allegro.pl/oferta/smartwatch-zegarek-ekg-pulsoksymetrtermometr-pl-9927412179 .
2004	<i>P11 Plus 0.96 Inch Screen ECG+HRV Smart Health Bracelet, Support Body Temperature, Dynamic Heart,</i> Newegg.com, http://www.newegg.com/p/3EG-000R-000F7 .

I. INTRODUCTION

Masimo's Petition challenging U.S. Patent No. D883,279 ("the '279 patent") is fatally deficient in multiple ways. The Petition fails to identify any reference that has an appearance "basically the same" as the claimed design's series of concentric circle shapes and protruding circular element having a domed appearance, and thus none of Grounds 1-3 include a proper primary reference. For example, Paulke, Yuen, and Fong each altogether lack an inner circular shape formed by an arrangement of multiple elongated four-sided shapes (green), and the profile having a domed appearance, that are central to the claimed design's overall appearance. These prominent features, and resulting overall appearance, are simply not present in any of the primary references.



This alone provides an independent reason why Paulke, Yuen, and Fong lack an appearance that is "basically the same" as the claimed design. Together with multiple other readily apparent differences between the claimed design and Paulke,

Yuen, and Fong—many of which are never specifically addressed by the Petition—the Petition is woefully deficient in demonstrating any of these references are proper primary references.

The Petition relies on layers of yet additional factual and legal errors. Masimo’s proposed claim construction focuses on design concepts that fail to accurately portray the actual claimed design, and which improperly “factors out” multiple ornamental features significant to the design’s cohesive overall appearance. Rather than address the claimed aspects that contribute to the design’s overall appearance, and their differences from the prior art, Masimo’s analysis obscures the design without the required analysis relative to the cited references, each of which have fundamental differences that contrast with the ’279 patent’s overall appearance. These deficiencies in the cited art are further confirmed by Masimo’s attempt to make yet further layers of modifications beyond what are depicted by these references.

For at least the reasons explained below, Masimo fails to demonstrate a reasonable likelihood that the design claim is unpatentable. The Petition should be denied.

II. BACKGROUND

Apple is known as an innovator in consumer products and a leader in industrial design. Apple’s innovative products are produced through its significant

investment in research and development in technology and product design. Each product is meticulously created to be appealing and sleek, with numerous iterations to perfect the design of each product and to incorporate aesthetic themes that run through the Apple products.

The Apple Watch is no exception, and has been a best-seller and consumer favorite in part due to its innovative, stylish, and distinctive style. The design claimed in the '279 patent is the result of tremendous design efforts to produce a consumer-wearable product incorporating signature Apple design qualities such as elegant and simple designs that echo themes in other Apple products. As discussed in greater detail below, a Designer of Ordinary Skill (“DOSA”) would have recognized these qualities of the overall claimed design, and appreciated the efforts underlying the design that immediately distinguish its appearance from prior designs.

III. LEVEL OF ORDINARY SKILL

For the purposes of this case, a Designer of Ordinary Skill in the Art (“DOSA”) would have a degree in Industrial Design or Mechanical Engineering, and at least two years of professional experience creating Industrial Designs of consumer products. EX2001, ¶19.

IV. MASIMO CANNOT PREVAIL ON ANY CHALLENGED CLAIM

A. Masimo's Proposed Claim Construction Ignores Features of the Claimed Design and Relies on General Design Concepts

Masimo's proposed claim construction is deficient because it fails to address prominent features of the claimed design and, critically, the contributions of those features to the overall appearance. *See Skechers U.S.A., Inc. v. Nike, Inc.*, IPR 2017-00617, Paper 13 at 7-8 (PTAB July 6, 2017) ("While we recognize that the illustration, rather than a verbal description, is the better representation of the claimed design ... Petitioner's verbal description in these cases does not go far enough."). While a verbal description may not always be necessary, any verbal description must identify readily observable features of the claimed design that impact its overall appearance. *See Skechers*, IPR2017-00617, Paper 13 at 8; *see also Vitro Packaging, LLC v. SaverGlass, Inc.*, IPR2015-00947, Paper 13 at 5 (PTAB Sept. 29, 2015) ("We are not persuaded that this is an accurate portrayal of the claimed bottle because it focuses on general dimensions, ratios, and elements common to many bottles."). As described below, this error infects each of Masimo's grounds, and therefore compels denial of the Petition. *See, id.* at 13 (denying institution, stating, "[w]e do not find Petitioner's arguments persuasive because Petitioner focuses on design concepts rather than actual appearance and specific design characteristics." (citation omitted)).

The '279 patent claims a unique, elegant design for an “electronic device” having an overall appearance of multiple concentric circles, evoking a bulls-eye, target, or ripples in a pond. EX2001, ¶¶20-28; EX1001, Figs. 1-9; EX2002, Figs. 1-9.¹ As illustrated below, the claimed design includes a protruding circular element with a beveled edge protruding outward from an outermost continuous circle (blue). *Id.* An outer circular shape is formed by thin, elongated arches positioned within the outermost continuous circle (red). *Id.* The inner edges of the arches are raised relative to the outermost continuous circle, resulting in the appearance that the arches protrude upward from the outermost continuous circle. Moving toward the center of the concentric circular arrangement, spaced apart from the outer circular shape, an inner circular shape is formed by an arrangement of multiple elongated four-sided shapes (green). *Id.* The inner circular shape is smaller in diameter than the outer circular shape. *Id.* The design also includes a central round shape, spaced apart from and positioned within the inner circle shape. The design has a domed appearance that appears to protrude out from the surrounding surface of the electronic device (e.g., the plane of the outermost continuous circle).

¹ EX2002 is the supplemental drawings filed with the USPTO on December 14, 2021.

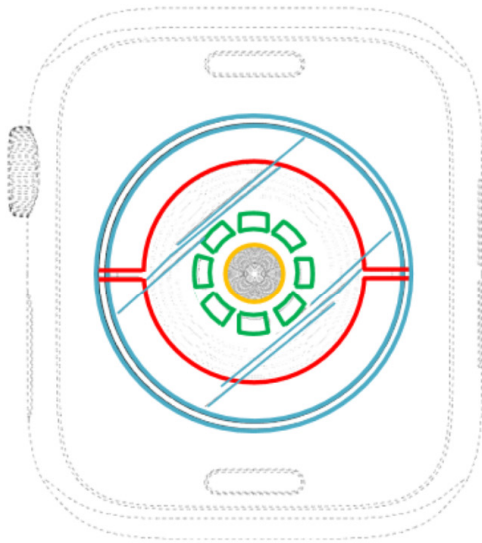


FIG. 4

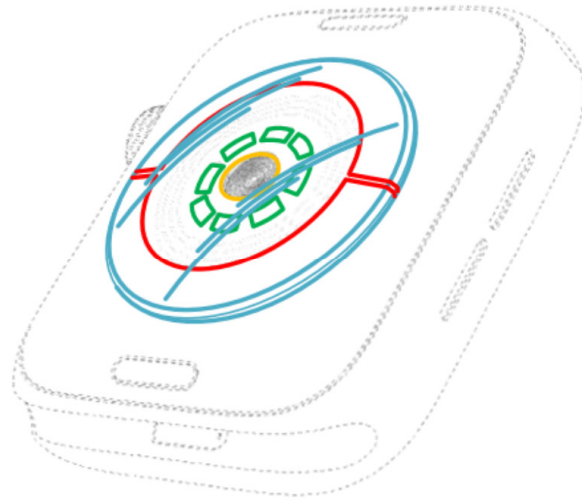
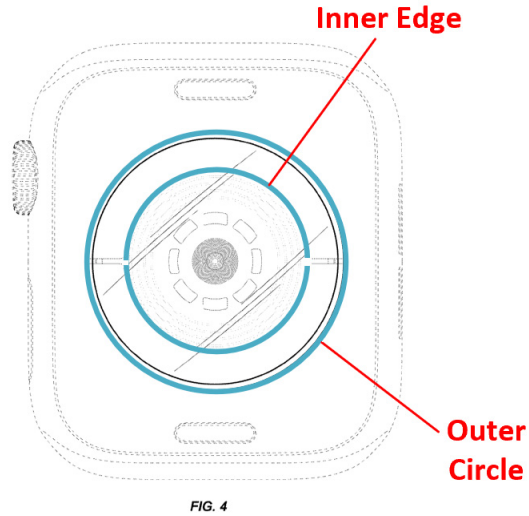


FIG. 2

EX2001, ¶20 ((EX1001, Figs. 2 and 4 (annotated))).

The claimed design's overall appearance evokes concentric circles within the outermost continuous circle. *Id.* Moving inward from the outermost continuous circle, the arch shapes are positioned such that the outer circular shape appears as a unified ring or circular shape. *Id.*

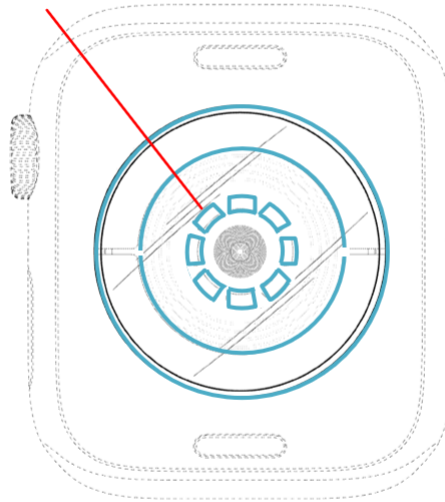
The outer circular shape is formed by elongated arches. The distance between the inner edge of the arches and the outermost continuous circle is small compared to the diameter of the outermost continuous circle, contributing to the appearance of an elegant, precise and streamlined shape. EX2001, ¶21.



EX2001, ¶21 (EX1001, Fig. 4 (annotated)).

Toward the center of the concentric circular arrangement from the outer circular shape is an inner circular shape formed by multiple elongated four-sided shapes. The elongate shape of the four-sided shapes that reach toward one another emphasize the arrangement's circular shape, and complement the curvature of the outermost continuous circle and the outer circular shape formed by the arches. EX2001, ¶¶22-24.

Four-sided shapes



EX2001, ¶23 (EX1001, Fig. 4 (annotated)).

The diameter of the inner circular shape formed by the multiple four-sided shapes is smaller than the diameter of the outer circular shape formed by the arches. Together with the arch shapes and outermost continuous circle, the inner circular shape formed by the multiple four-sided shapes contribute to an overall appearance of multiple concentric circles, evoking a bulls-eye, target, or ripples in a pond. EX2001, ¶24. The concentric circles evoked by the outermost continuous circle, inner edges of the arch shapes, outer edges of the multiple four-sided shapes, and central round shape are highlighted in the annotated figure below.

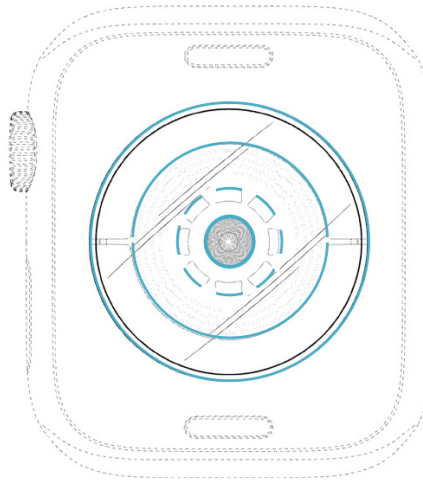


FIG. 4

EX2001, ¶25 (EX1001, Fig. 4 (annotated)).

The protruding circular element has a beveled edge protruding outward from the outermost continuous circle and a domed appearance inward of the beveled edge.

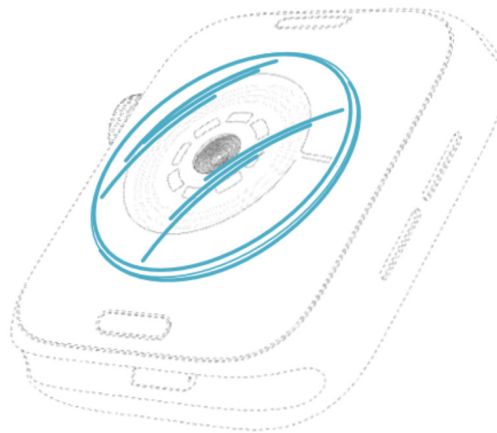


FIG. 2

EX2001, ¶26 (EX1001, Fig. 2 (annotated)).

The concentric rings suggested by the elements of the outermost continuous circle, arch shapes, and plurality of four-sided shapes, are prominently visible.

EX2001, ¶¶27-28. The physical position of the arch shapes, and their elongate proportions compared to the diameter of the outermost continuous circle, suggests a unified, continuous circle despite the arch shapes not touching each other. Similarly, the positions of the four-sided shapes are close to one another, with their elongate proportions extending towards one another, accentuating a circular appearance formed by the four-sided shape's outer and inner edges. *Id.*

Masimo ignores immediately observable features in its claim construction. *See* Pet., 7; *see also* 11-12. For example, Masimo describes the '279 patent "claims the design of a circular protrusion on the back of the device. . . . the protrusion includes two arc-shaped portions (gray) surrounding a circular array of rectangles (blue), with the rectangles surrounding concentric circles (orange). The protrusion's outermost surface (red) is convex." *Id.* (noting the design "also includes a vertical edge (pink) and chamfered edge (green) between the convex surface and the back of the device." But this construction ignores the actual appearance of many of the prominent features noted above, including 1) the outermost continuous circle, 2) the unified circular appearance provided by the arches, 3) the distance between the inner edges of the arches and the outermost continuous circle that is relatively small and complementary to the proportions of other features, and 4) the elongated four-sided shapes arranged to complement the curvature of the outermost continuous circle and the arch-shaped portions. Each of these features contribute to the unique, concentric

circular overall appearance, and are significant to the ordinary designer. EX2001, ¶29.

Ultimately, Masimo's generic description of design concepts and omission of the appearance provided by the actual claimed shapes and their relationships fails to recognize the claimed design's overall impression. These omissions taint each of the Petition's grounds, warranting denial of the petition. *Infra*, §§IV.C-E; *see also*, *Macsports, Inc., v. Idea Nuevo, Inc.*, IPR2018-01006, Paper 6 at 12 (PTAB Nov. 13, 2018) (denying institution); *Vitro Packaging*, IPR2015-00947, Paper 13 at 5 (denying institution); *Skechers*, IPR2017-00617, Paper 13 at 13 (denying institution).

B. Masimo's Proposed Construction Erroneously "Factored Out" Purportedly Functional Aspects of the Design

In an attempt to map the '279 patent's unique design to the prior art, Masimo relies on a construction that improperly "factored out" meaningful aspects of the design. Even if particular aspects of the design are associated with a functional purpose, they have ornamental contributions that cannot be excluded from the claimed design. Masimo's proposal is based on legal error. Additionally, Masimo improperly imports purported functionality from a commercial embodiment, ignoring that such functionality is not required or mentioned by the '279 patent, and

ignores the numerous alternative designs that can achieve the same or similar functionality.

1. Even if Particular Features are Associated with a Functional Purpose, They Contribute to the Overall Appearance of the Design and Cannot be “Factored Out”

As the Federal Circuit explained in *Sport Dimension*, “[w]hile we agreed that certain elements of the device were functional, their functionality did not preclude those elements from having protectable ornamentation.” *Sport Dimension, Inc. v. Coleman Co.*, 820 F.3d 1316, 1321 (Fed. Cir. 2016) (“in no case did we entirely eliminate a structural element from the claimed ornamental design, even though that element also served a functional purpose”). Masimo’s “construction in this case conflicts with that principle of design patent claim construction because it eliminates whole aspects of the claimed design.” *Id.*; Pet., 16; *see also* 49 (“should be disregarded”); 51 (“should be disregarded”); 54 (“should be disregarded” and “design encompasses *any arrangement* of rectangles surrounded by and spaced apart from the arc-shaped portions.”); 57 (“should be disregarded”); 79; 81; 82; 85; 98; 99; 101; 103. Even if particular aspects of the claimed design can have a functional purpose (which Masimo fails to demonstrate), they are still significant to the overall ornamental appearance of the ’279 patent. Masimo’s assertions that these features be “factored out” is based on legal error and must be rejected.

The Petition conspicuously omits discussion of *Sport Dimension* and subsequent decisions highlighting that “in no case did [the Federal Circuit] entirely eliminate a structural element from the claimed ornamental design,” even if the element also served a functional purpose. *Sport Dimension*, 820 F.3d at 1321. Masimo engages in the same prohibited practice as the *Ethicon* District Court, relying on a construction that “factored out” features from the claimed design. *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1328 (Fed. Cir. 2015) (reversing district court that “found that because each of the designs of the trigger, torque knob, and button must be ‘factored out’ under *Richardson v. Stanley Works*, . . . the Design Patents had no scope.”). It would be reversible error for the Board to do the same.

“[T]he claim construction in *Richardson* did not exclude those components in their entirety. Rather, the claim construction included the ornamental aspects of those components,” and “[a]s such, the language ‘dictated by their functional purpose’ in *Richardson* was only a description of the facts there; it did not establish a rule to eliminate entire elements from the claim scope.” *Apple Inc. v. Samsung Elecs. Co.*, 786 F.3d 983, 998 (Fed. Cir. 2105). Masimo’s legal error taints the entirety of its analysis, providing an independent reason that its construction is unsupportable. Each of the outermost continuous circle, domed appearance, outer circular shape provided by the arch-shaped portions, inner circular shape provided

by the arrangement of elongated four-sided shapes, and spacing of the outermost continuous circle, arch-shaped portions' inner edges, and four-sided shapes relative to one another has an ornamental contribution significant to the claimed design's overall appearance. EX2001, ¶¶20-29.

Masimo's claim construction is premised on a further legal error by asking the Board to consider each aspect of the claimed design separately. Contrary to Masimo's assertions that particular aspects be "factored out," the Federal Circuit has repeatedly explained "design patents protect the *overall* ornamentation of a design, not an aggregation of separable elements." *Sport Dimension*, 820 F.3d at 1322. The features depicted by the '279 patent's claimed design must be considered together in view of the overall appearance achieved by the claimed features—here, including a series of concentric circles reminiscent of a bullseye or ripples in a pond. EX2001, ¶¶23-28. By "factoring out" structural elements from the claim, Masimo "improperly converted the claim scope of the design patent from one that covers the overall ornamentation to one that covers individual elements." *Sport Dimension*, 820 F.3d at 1322. This is improper.

2. Masimo's Focus on Functionalities of the Commercial Embodiment of the '279 Patent Constitutes Legal Error

Masimo's functionality discussion is based on yet another independent error. Masimo's attempt to "factor out" design aspects is premised on purported

functionality that is not required, or even mentioned, by the '279 patent. Instead, Masimo's functionality arguments improperly incorporate uses of an underlying commercial product into the design of '279 patent. For example, Masimo's functionality arguments are premised on the presence of wireless charging components located between the arch-shaped features and the arrangement of four-sided shapes. Pet., 26 ("the claimed arc-shaped portions' design is also dictated by the need to ensure that the electrodes do not interfere with other components."); 18 (referring to "wireless charging" of a commercial product); 22. But nothing in the '279 patent tethers the claimed ornamental shapes to wireless charging components, or any other particular charging component—the '279 patent is directed to an "electronic device" without any requirement of wireless charging at all. *See Berry Sterling Corp. v. Pescor Plastics, Inc.*, 122 F.3d 1452, 1455 (Fed. Cir. 1997) (vacating summary judgment of invalidity on functionality because district court erred in considering functional limitations of commercial embodiment rather than the claimed design). Indeed, "the court cannot use the limitations of the commercial embodiment of the underlying article of manufacture to impose limitations on the scope of the design patent." *Id.*; *see also* Pet., 13-16. Masimo's functionality arguments are premised on features extraneous to the claimed design, rather than the actual features shown and described by the '279 patent. *See id.* This is yet a further

independent reason that Masimo's claim construction is erroneous and cannot be adopted.

3. A Multitude of Alternative Designs Highlight the Ornamental Contributions of Features of the Claimed Design

There is no dispute that “[w]hether suitable alternative designs are available is ‘an important – if not dispositive – factor in evaluating the legal functionality of a claimed design.’” *Ethicon*, 796 F.3d at 1329-30; Pet., 11. Here, multiple suitable alternative designs exist as described below that provide the same or similar functionality. The elements of the '279 patent contribute to its overall appearance, and cannot be “factored out.”

For example, the Aries AW80 watch is described as enabling measurement of ECG, heart rate tracking, and blood oxygen tracking, and uses a magnetic charging cable. *See* EX2003, 1, 5-6, 11, 13-16. The AW80 accomplishes its functionalities with a design that includes opposed shapes on either side of a central band including square and rectangular sensors, and thus has a rear face having an appearance significantly different than the '279 claimed design. EX2001, ¶¶30-32.



EX2003, 6-7.

As another example, the P11 Plus watch is described as enabling measurement of ECG, heart rate tracking, and blood oxygen tracking. *See* EX2004, 1-3. The P11 Plus accomplishes its functionalities with a design that includes three rectangular electrodes, such that its rear face has a significantly different appearance than the '279 claimed design. EX2001, ¶¶33-34.



EX2004, 3.

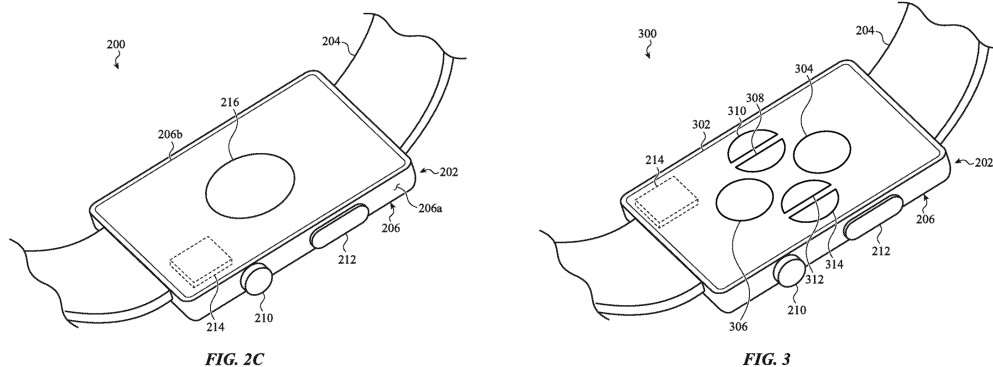
The Petition is silent as to these alternative designs.

As discussed in further detail below, references cited by the Petition itself also confirm the existence of alternative designs as to each of the features identified by Masimo as purportedly functional, and confirm the features identified by Masimo contribute to the claimed design's ornamental appearance. *See e.g.*, Pet., 24, 33-34.

a) The Specific Arrangement of the Arch-Shaped Portions is Decorative and Contributes to the Unique Overall Appearance

Masimo points to the '157 utility patent (U.S. 10,610,157) as explaining that the electrodes are “arc-shaped and positioned” and “sized” to achieve the functions of providing electrical contact between the electrodes and a wearer's skin. Pet., 24

(citing EX1024, 17:20-34; 13:54-59). The '157 patent itself, however, discloses multiple arrangements, shapes, and sizes of electrodes to achieve the stated purpose while having different appearances including a single rear-facing electrode (Fig. 2C), an arrangement of half-circle and circular electrodes (Fig. 3), or other arrangements. *See* EX1024, 17:24-34; EX2001, ¶¶36-38.



EX1024, Figs. 2C and 3.

b) The Specific Arrangement of the Four-Sided Shapes is Decorative and Contributes to the Unique Overall Appearance

The multitude of alternative designs confirm that the '279 patent's particular appearance, including number, size, and configuration of four-sided shapes contributes ornamentally to the overall appearance. For example, the '157 Patent reflects multiple alternative arrangements of photodiodes that enable functionality of emitting and receiving light from the wearer's skin. *See* EX1024, 15:34-40, 13:59-63; *see also* EX2001, ¶¶39-40. Other examples of alternative designs are

provided by Masimo's citation to a plethora of references illustrating different photodiode configurations. *See* Pet., 34 (citing EX1038, 2-3 and EX1014, ¶68).

c) The Concentric Circles and Overall Circular Shape is Decorative and Contributes to the Unique Overall Appearance

Masimo contends that the overall circular shape of the claimed sensor design is functional. Pet., 33-34. But, here again, Masimo's own citations demonstrate multiple suitable alternative designs having non-circular shapes. EX2001, ¶¶41-42; EX1038, 2-3.

d) The Domed Profile is Decorative and Contributes to the Unique Overall Appearance

Masimo alleges that "the convex surface, chamfered edge, and vertical edge," are all dictated by functionality. Pet., 17. The Petition cites the '157 patent, but nothing in the '157 patent describes that a particular convex shape is required, and Masimo never identifies any relevant discussion of a "chamfered edge" or "vertical edge" that Masimo purports to be dictated by function. Indeed, FIG. 19 cited by the petition at page 22 illustrates a different shape. EX2001, ¶43.

C. Ground 1: Masimo Fails to Demonstrate that the Claimed Design is Obvious Based on Paulke in View of Mendelson, Bushnell, and Chung

Ground 1 is fatally flawed because the Petition fails to demonstrate that Paulke is a proper primary reference in view of major aspects of the design that are entirely

absent. From there, the Petition relies on multiple layers of modifications based on a four-way combination, along with yet additional modifications not based on features depicted in the references at all, in an attempt to recreate the claimed design. This is simply insufficient to demonstrate a reasonable likelihood of unpatentability.

The '279 patent depicts a design having a streamlined appearance of multiple concentric circles, including, in part, a protruding circular element with a beveled edge protruding outward from an outermost continuous circle (blue), an outer circular shape formed by multiple thin, elongated arches (red), and an inner circular shape formed by an arrangement of multiple elongated four-sided shapes (green).

Supra, §IV.A.

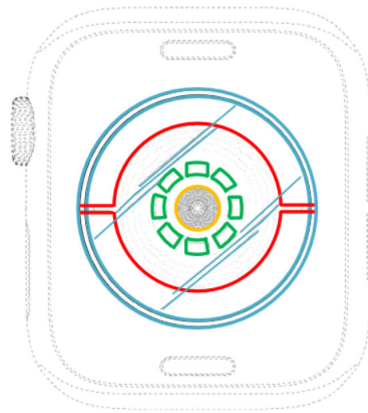


FIG. 4

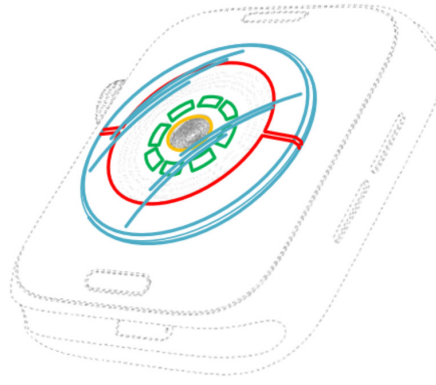


FIG. 2

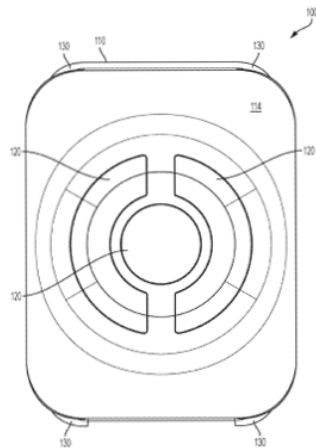


FIG. 1G

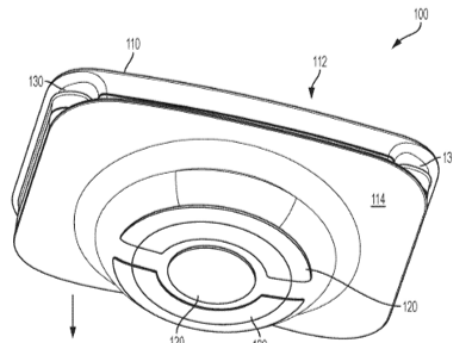


FIG. 1F

EX2001, ¶44-46 (Top: EX1001, Figs. 2 and 4 (annotated); Bottom: EX1006, Figs. 1G, 1F).

While the inner circular shape formed by multiple four-sided shapes (green) is central to the claimed design's concentric circle overall appearance, it's entirely absent from Paulke (*infra*, §IV.C.4.a). Additionally, unlike the domed appearance and continuous beveled edges of the claimed design, Paulke has a relatively planar surface on a bulbous shape extending from Paulke's housing. EX2001, ¶46. Given

these prominent differences, Paulke’s appearance is meaningfully different, and certainly not “basically the same,” compared to the claimed design.

Beyond failing to demonstrate a proper primary reference, these differences also highlight the lack of visual similarity between Paulke and Mendelson, Bushnell, and Chung that prevents the specific modifications Masimo proposes. The Petition’s Ground 1 obviousness theories are woefully deficient, and the gaps in its analysis highlight that Masimo cannot demonstrate unpatentability of the design claim based on the evidence set forth in the Petition.

1. Paulke is Not a Proper *Rosen* Reference

The Ground 1 obviousness theory is defective because the Petition fails to demonstrate that Paulke is a proper primary reference. *See* EX2001, ¶¶48-49. Masimo’s obviousness theory is based on the flawed premise that “Paulke’s differences compared to the claimed design would be that Paulke has one rectangle, not a circular array of them, and one central circle, not concentric circles.” Pet., 59. But these are not the only differences—the Petition ignores multiple, prominent differences between the claimed design and Paulke that result in meaningfully different appearances and that are certainly not “basically the same.” *Levitation Arts, Inc. v. Flyte LLC*, PGR2018-00073, Paper 14, 16-22 (PTAB, Jan. 17, 2019) (denying institution in part because “claimed design includes ornamental features that are entirely absent or significantly different in the [prior art] design”); *Dorman*

Products Inc. v. PACCAR Inc., IPR2014-00542, Paper 10 at 5 (PTAB Sept. 5, 2014) (denying institution); *In re Harvey*, 12 F.3d 1061, 1063 (Fed. Cir. 1993) (“Because major modifications would be required to make Harvey’s prior art vase look like the claimed designs, it cannot qualify as a basic design.”).

a) Masimo Fails to Properly Analyze the Inner Circular Shape Formed by the Arrangement of Four-Sided Shapes of the Claimed Design in Comparison to Paulke

Paulke lacks the claimed design’s concentric circle overall appearance flowing from the inner circular shape formed by the distinctive arrangement of elongated four-sided shapes.

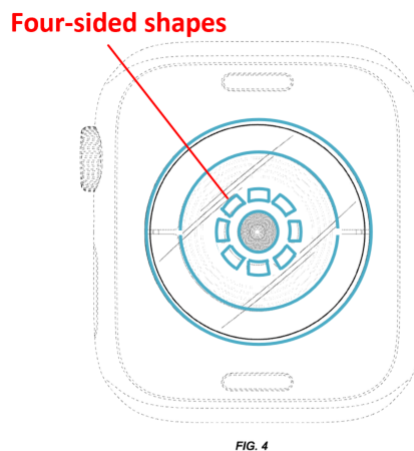
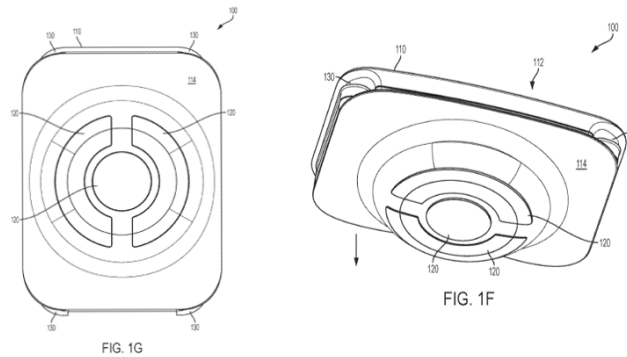


FIG. 4

EX2001, ¶50 (EX1001, Fig. 4 (annotated)).

Paulke depicts a device having a central circular component 120, entirely lacking an inner circular shape formed by an arrangement of multiple, elongated, four-sided shapes. EX1006, Fig. 1G, 1F, 5D. See EX2001, ¶¶50-60.



EX1006, Figs. 1G, 1F.

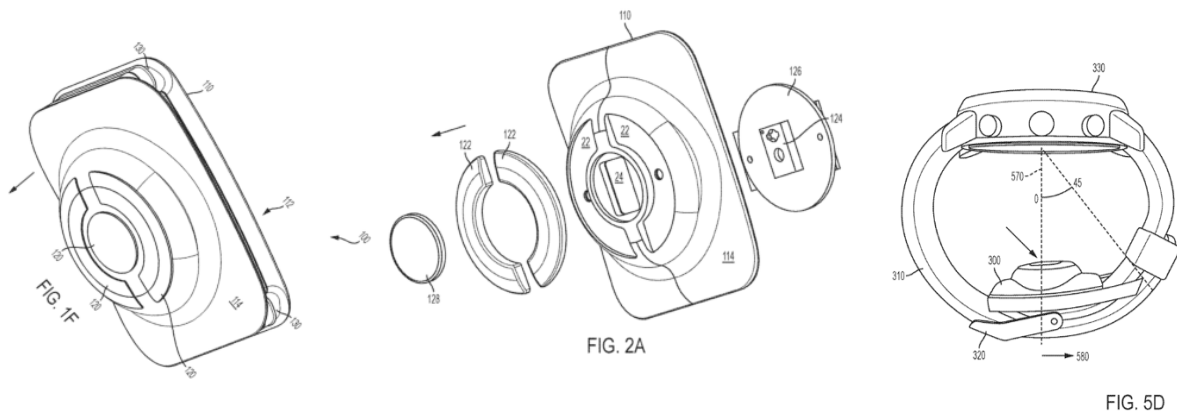
Unlike the claimed design, Paulke has a crowded appearance in which inner edges of Paulke's opposed shapes are in close proximity to its central shape—a shape that Masimo points to as comparable to the central circle of the claimed design (Pet., 58) but which leaves no room for an inner circle shape formed by an arrangement of multiple, elongated four-sided shapes. EX2001, ¶52.

Ground 1 fails to demonstrate a proper *Rosen* reference for this independent reason.

Beyond this fatal deficiency, Masimo's Ground 1 analysis of the four-sided shapes is tainted by multiple additional defects that further confirm that Paulke is not an appropriate primary reference. For example, in its hindsight attempt to recreate the claimed design, Masimo embarks on a multi-layered analysis that relies on the purported shape of an internal component of Paulke's device for a purported rectangle. Pet., 54-57. But Paulke never illustrates the purported internal component as a rectangle, and even if it were rectangle, the internal component is *never visible*

together with the external components of Paulke. *Levitation Arts*, PGR2018-00073, Paper 14 at 21 (denying institution and indicating “Petitioner does not explain how or why ‘hidden’ structures . . . that are not visible in [the prior art] design contribute to the overall visual impression”). Paulke simply lacks the combination of an outer circular shape formed by arch shapes, or any of the other features of that contribute to the appearance of the ’279 design, together with a rectangle component that is the basis for Masimo’s modification of Paulke. EX2001, ¶¶52-53.

Paulke’s Fig. 2A illustrates an exploded perspective view of the device’s internal components, illustrating that “heart rate and/or blood oxygen sensor 124” is mounted on a “board 126” within the housing beneath a “lens 128.” EX1006, 16.



EX1006, Figs. 1F (rotated), 2A, and 5D.

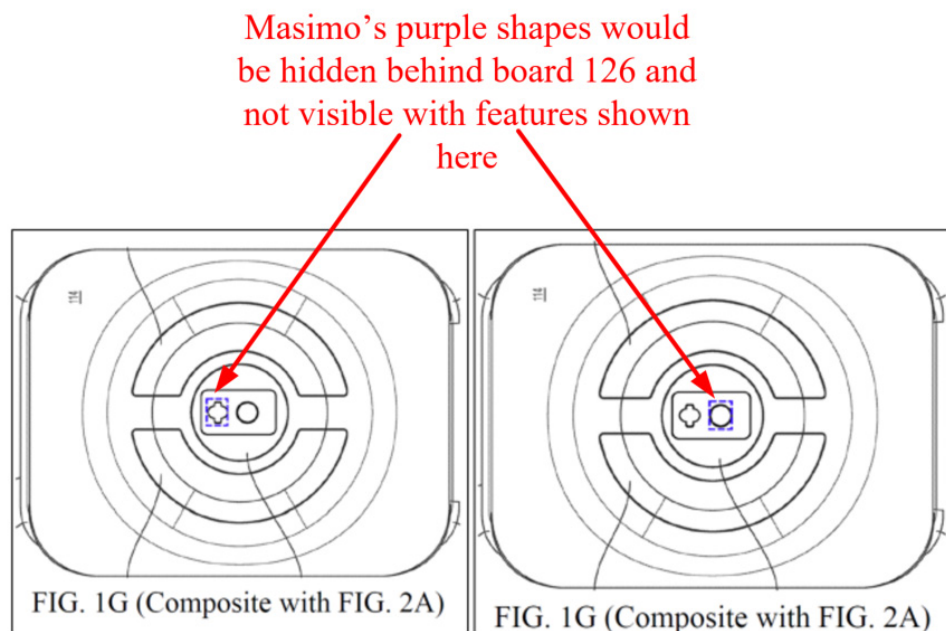
The Petition alleges that Paulke’s “sensor 124” includes “(1) a light source (e.g., LEDs), (2) at least one light detector (e.g., photodiodes), and (3) an opening to allow light to reach and be detected by the detector,” and “a DOSA would have

understood Paulke included a rectangular photodiode (blue) associated with the PPG sensor’s opening.” Pet., 55. But even if an ordinary designer would have understood Paulke as including a photodiode having a rectangle shape (which Paulke never mentions and Masimo fails to demonstrate²), Paulke’s appearance is starkly different than the claimed design. EX2001, ¶54.

First, Masimo’s analysis is fatally deficient because Masimo relies on *a single* rectangle shape—a stark contrast from the claimed design’s circular array of four-sided shapes that contributes to the overall appearance of concentric circles. EX2001, ¶59. Masimo’s theory based on a single offset rectangle (even if visible with Paulke’s other features, which it is not) simply creates a different overall appearance that lacks the claimed design’s concentric overall appearance. *Id.* The Petition is silent on this prominent difference, merely concluding “any difference in the arrangement of rectangles does not change the overall visual similarity of Paulke and claimed designs,” without evidence or explanation. Pet., 57.

² To be clear, Paulke never mentions the term “photodiode” at all, and certainly not that the photodiode would have a particular appearance alleged by Masimo.

Second, Masimo ignores that the purported rectangle is never visible with Paulke's external features. The purported photodiode, even if present, would have been *hidden behind* Paulke's depicted openings through sensor 124. EX2001, ¶¶54-57. Indeed, Masimo itself acknowledges the purpose of Paulke's depicted openings are "to allow light to reach and be detected by the detector" (Pet., 55), which is an internal component positioned behind Paulke's openings.



EX2001, ¶54 (Pet., 55 (purple annotations in Pet.; red text/arrows added))

The Petition simply ignores that the purported "rectangular photodiode" is never described or shown by Paulke as visible together with Paulke's arch portions or other exterior features. *Levitation Arts*, PGR2018-00073, Paper 14 at 21.

Third, Masimo's theory fails to address the actual appearance depicted by Paulke that depicts ***non-rectangular*** shapes—a cross-shaped opening and a circle-shaped opening. EX1006, Fig. 2A; EX2001, ¶58. Nothing in Paulke depicts the contrary rectangle shapes Masimo purports to be present, or explains why a DOSA would have understood Paulke to have an appearance of a rectangular shape that deviates from Paulke's illustrated appearance.³ *Berry Sterling Corp. v. Pescor Plastics, Inc.*, 1999 U.S. App. LEXIS 20789, *9 (C.A.F.C. 1999) (“The modifications to the primary reference cannot be such that they change the fundamental characteristics of the design.”); *see also Termax Co. v. Illinois Tool Works Inc.*, IPR2022-00106, Paper 7, 30 (PTAB, May 12, 2022) (citing *Apple, Inc. v. Samsung Elec. Co.*, 678 F.3d 1314, 1331 (Fed. Cir. 2012)).

³ To the extent Masimo relies on modification of Paulke (e.g., to have a rectangle shape visible together with external features, or to modify Paulke's cross or circle shapes to instead have a rectangle shape) before even reaching combination with Mendelson, such a theory is based on legal error and fails to demonstrate “a single reference, ***a something in existence***, the design characteristics of which are basically the same as the claimed design.” *High Point Design*, 730 F.3d at 1311 (emphasis added).

This deficiency is not remedied by Masimo's reliance on an isolated quote: "there's nothing patentable about multiple detectors." Pet., 57. Tellingly, Masimo omits the quote's context, which does not speak to the ornamental appearance of an arrangement of detectors, and certainly not the ornamental appearance of the claimed design's arrangement of four-sided shapes, in combination with other claimed features contributing to the overall appearance of the '279 design.

Paulke simply lacks the inner circular shape provided by the arrangement of multiple elongated four-sided shapes of the '279 patent, and has a markedly different appearance as a result.

b) Masimo Fails to Properly Analyze the Outer Circular Shape Formed by the Arches of the Claimed Design in Comparison to Paulke

Masimo's assertion that "the arc-shaped portions of Paulke and the D'279 Patent provide the same overall visual impression" (Pet., 49) fails to address readily visible differences that are significant to the claimed design's overall appearance. The '279 patent includes an outer circular shape formed by unified thin and elongated arches. *Supra*, §IV.A. The ends of each arch are positioned to form the unified circular appearance. EX2001, ¶¶20-27, 60-67. The thickness of the arches from the arch's inner edge to the outermost continuous circle is relatively small, contributing to the appearance of an elegant and streamlined outer circular shape.

Id.

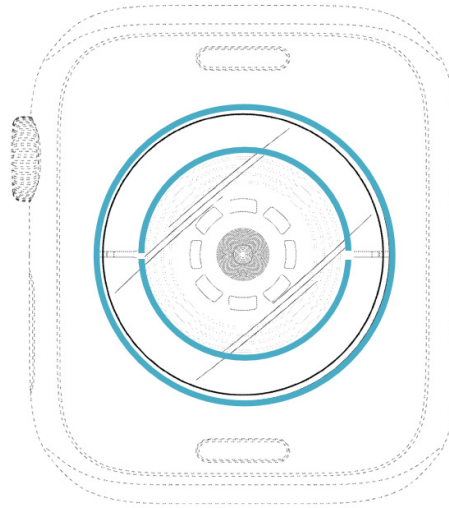


FIG. 4

EX2001, ¶63 (EX1001, Fig. 4 (annotated)).

In contrast, Paulke depicts opposed shapes spaced apart from one another and having a relatively larger thickness. Paulke's features provide an appearance of two separate, opposed shapes that differs prominently from the '279 patent's arches that evoke an overall concentric circle appearance. EX2001, ¶64.

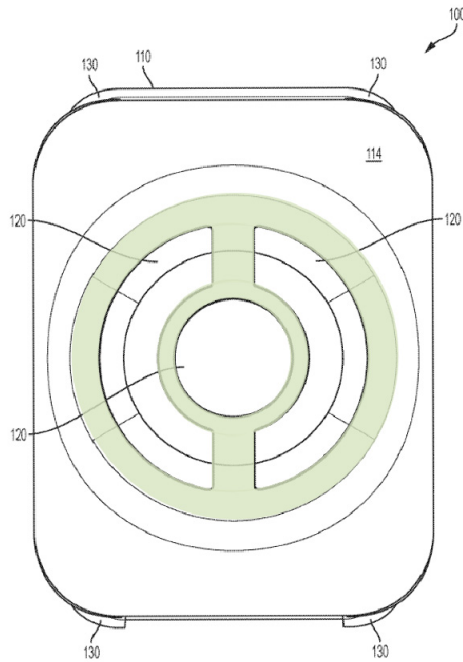


FIG. 1G

EX2001, ¶64 (EX1006, Fig. 1G (highlighted)).

Paulke's opposed shapes are meaningfully wider than the '279 patent's claimed arches, with the inner edge of Paulke's opposed shapes spaced a substantial distance inwardly (e.g., relative to radius lines depicted in Fig. 1G), and the width of Paulke's curved shapes extend across a significant portion of Paulke's sensor body surface. These prominently visible features provide a different overall appearance that is bulky and dominated by the opposed curved shapes, providing a crowded appearance rather than the '279 patent's streamlined, elegant concentric circle appearance. EX2001, ¶65. Indeed, Masimo compares Paulke's feature 120 to the central circle of the '279 design (Pet., 58), but in doing so ignores that the crowded

appearance leaves no room for the inner circle shape provided by the arrangement of elongated four-sided shapes of the '279 design.

Masimo acknowledges “Paulke’s arc-shaped portions are spaced slightly farther apart than the claimed design” but merely concludes “that difference, or any difference in the size, shape or spacing of the arc-shaped portions of Paulke and the claimed design, does not alter the overall visual similarity of these designs.” Pet., 50. Critically, Masimo never addresses the contribution of these features on the claimed design’s overall appearance, ignoring the visual appearance of the claimed design’s concentric circles that is lacking from Paulke’s opposed “arc-shaped” components. This is not a matter of degree—Paulke’s opposed shapes have the appearance of two separate features rather than the '279 patent’s unified circular appearance of the arches. EX2001, ¶¶66-67.

The Petition cites paragraph 63 of the Delman Declaration, but this paragraph parrots the petition without any additional underlying explanation. *Compare* EX1003, 63 *with* Pet., 49-50. Such an “*ipse dixit* declaration” is insufficient and does nothing to remedy the Petition’s deficient analysis. *TQ Delta, LLC v. Cisco Sys.*, 942 F.3d 1352, 1362-64 (Fed. Cir. 2019) (refusing to give weight to petitioner’s “*ipse dixit* declaration”).

**c) Masimo Fails to Properly Analyze the Beveled Edge
Protruding Outward From the Outermost Continuous
Circle and the Domed Appearance**

Masimo's comparison of Paulke with the claimed design is premised on a reconstruction of Paulke that directly contradicts Paulke's actual appearance. The colored image on page 53 of the Petition is not a figure from Paulke, but rather Masimo's proposal as to what the exploded image might look like when assembled. Critically, however, Masimo ignores that Paulke already shows an assembled view, which lacks Masimo's artificially-added protruding edges. Simply put, the protruding edge is Masimo's creation, and is not depicted in Paulke's Figs. 1G and 1F.

Masimo's altered drawing is contradicted by
Paulke's actual appearance

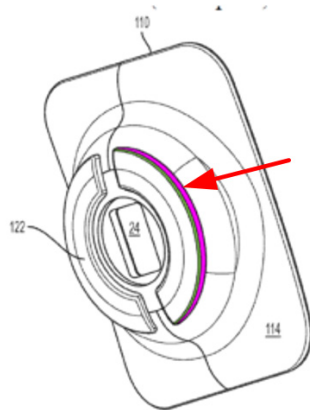
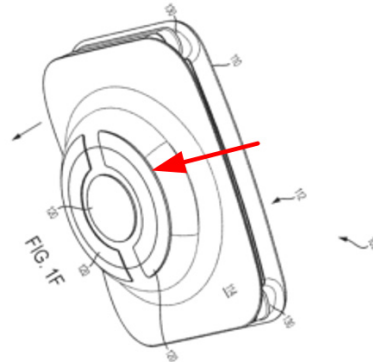


FIG. 2A (assembled, excerpted)⁴

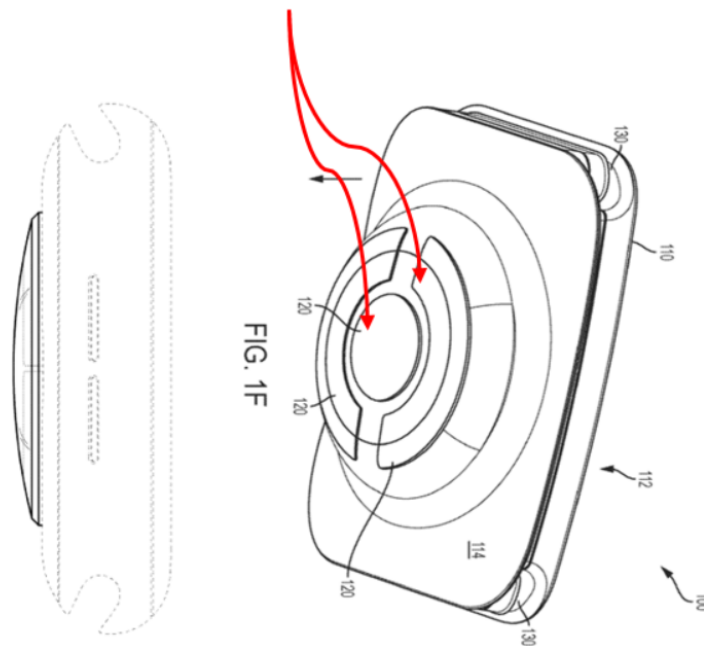


EX2001, ¶68 (Left: Petition's altered drawing (Pet., 53); Right: EX1006, FIG. 1F (red text/arrows added)).

Even if Paulke depicted the appearance of Masimo's modified assembly (which Masimo fails to demonstrate), it lacks the continuous circular bevel that extends around the entire circumference of the claimed design. Indeed, Masimo's modifications highlight the distinct, opposed appearance of Paulke's shapes that lack the unified circle appearance of the claimed design. EX2001, ¶69.

Masimo also fails to address the domed appearance of the '279 patent. Masimo's red annotations are belied by Paulke itself, which includes a flat central sensor component, and gaps that provide an uneven surface appearance—starkly contrasting with Masimo's red annotation, and that lack the profile and domed appearance of the claimed design.

Paulke's actual appearance depicts
separated planar surfaces



EX2001, ¶70 (Left: EX1001, FIG. 5; Right: EX1006, FIG. 1F
(annotated)).

Masimo itself indicates that “the *separate protruding shapes of Paulke’s design create a jagged, uneven appearance on the back of Paulke’s device*,” providing a very different appearance than the profile and domed appearance of the ’279 patent. Pet., 69 (emphasis added).

d) Masimo Fails to Properly Analyze the Outermost Continuous Circle and Its Relationship with the Arches and Other Features of the Claimed Design in Comparison to Paulke

The Petition fails to address the claimed design’s outermost continuous circle, and its contribution to the overall appearance, in its Ground 1 analysis. Masimo

further fails to address the differences between Paulke's design and the claimed design's relationship between the outermost continuous circle and outer circular shape formed by the spaced-apart elongated arch shapes. *Id.*

The outermost continuous circle encompasses each of the other features of the claimed design and sets the tone of its concentric circular overall impression. EX2001, ¶¶71-72. For example, the claimed design's outermost continuous circle (annotated "A" below) surrounds the outer circular shape formed by the arches and the inner circular shape formed by the four-sided shapes. It provides a visual continuity that is mimicked by the assemblies of shapes arranged within the outermost continuous circle. The outermost continuous circle thus meaningfully contributes to the claimed design's appearance as a series of concentric circles evoking a target, bulls-eye or ripples in a pond. EX2001, ¶67.

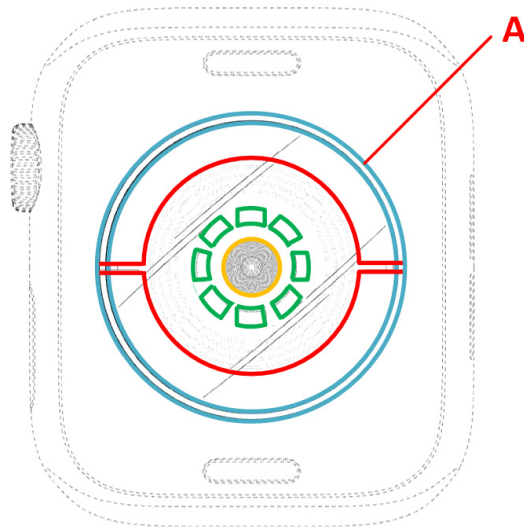


FIG. 4

EX2001, ¶72 (EX1001, Fig. 4 (annotated)).

The Petition's annotations of Paulke ignore this aspect, which do not depict such an outermost continuous circle near its opposed shapes. EX2001, ¶¶73-75.

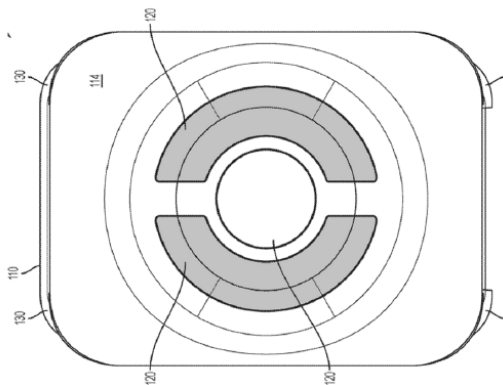


FIG. 1G (rotated)

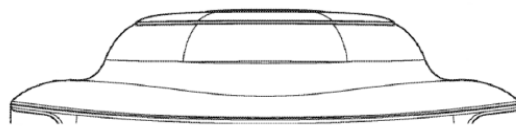
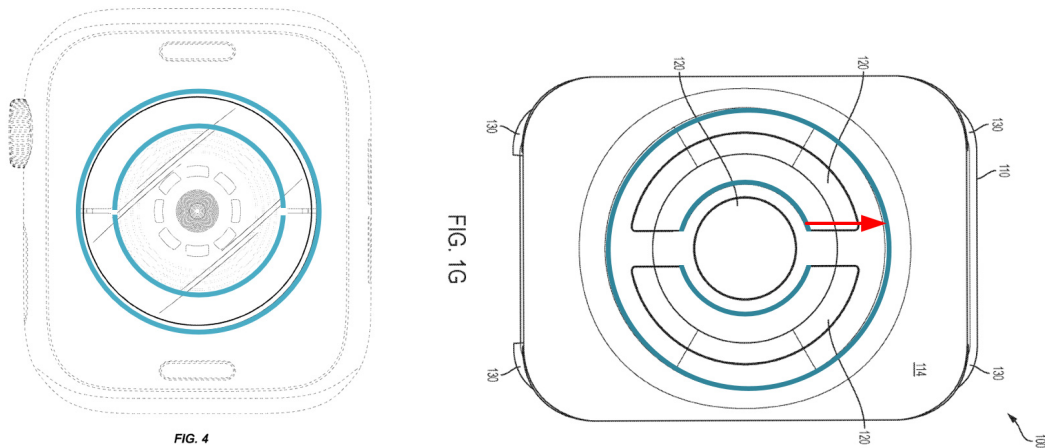


FIG. 1D (rotated)

Pet., 48, 50 (EX1006, FIGS. 1G, 1D).

Moreover, Masimo ignores the specific appearance provided by the relationship between the outermost continuous circle and the inner and outer circular shapes provided by the arches and multiple four-sided shapes, respectively. For example, Masimo neglects to address the position of the outermost continuous circle relative to the inner edge of the outer circular shape formed by the arch-shapes, and further relative to the outer edge of the inner circular shape formed by the four-sided shapes, which are spaced from the other to highlight the elegant circles of decreasing size. Paulke not only lacks the appearance flowing from these aspects of the claimed design, but has a crowded appearance in which its feature 120 is very close to inner edges of its opposed shapes, not even allowing for an inner circle shape provided by an arrangement of four-sided shapes.

Additionally, in the claimed design, the small thickness of the outer circular shape provided by the arches relative to the diameter of the outermost continuous circle contributes to an overall appearance as an elegant and streamlined series of concentric circles, rather than a bulky assembly of shapes. Masimo here again ignores these readily apparent features. EX2001, ¶¶75-76.

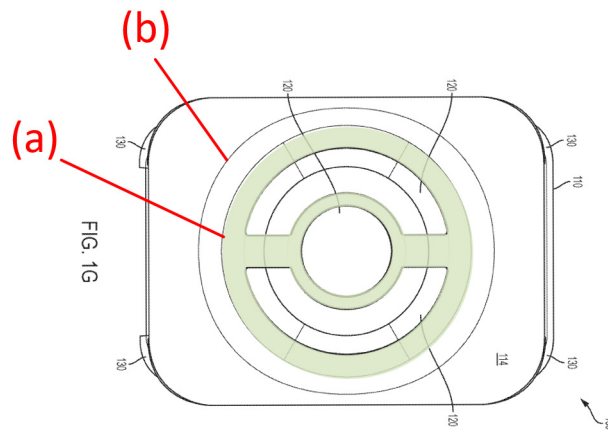


EX2001, ¶76 (Left: EX2001, Fig. 4 (annotated); Right: EX1004, Fig. 1G (rotated, annotated)).

The Petition never specifically addresses this aspect of the claimed design and its contribution to the overall appearance. In contrast to the claimed design, Paulke’s opposed shapes have a much thicker appearance. EX2001, ¶76. Paulke’s opposed shapes are bulky and take up a significant amount of space in Paulke’s design, contributing to a crowded appearance (e.g., between the opposed shapes) rather than the ’279 patent’s streamlined appearance. *Id.*

To be clear, the Petition does not specifically identify an outermost continuous circle in Paulke at all – the lines in Paulke appear to depict radius lines showing changes in slope of the edges of a raised portion, and at least in the case of the outermost line, are oval rather than circular in shape. EX2001, ¶¶77-78. To the extent Masimo relies on radius lines in Paulke’s drawing (which the Petition never mentions), Paulke’s opposed shapes are spaced inwardly significantly from both the

intermediate (a) and outer (b) lines, here again conveying a different overall appearance that lacks the claimed design's streamlined, well-proportioned appearance. Moreover, the Petition ignores that Paulke's outer line is not a circle at all, instead slightly depressed inwardly such that it has an elliptical or oval shape. EX1006, FIGS. 1D and 1G.



EX2001, ¶77 (EX1004, Fig. 1G (rotated, annotations and highlighting added)).

2. Masimo Fails to Demonstrate that it Would Have Been Obvious to a DOSA To Modify Paulke in View of Mendelson, Bushnell, and Chung To Create the Claimed Design

a) Mendelson and Chung are Not Proper Secondary References for Combination with Paulke

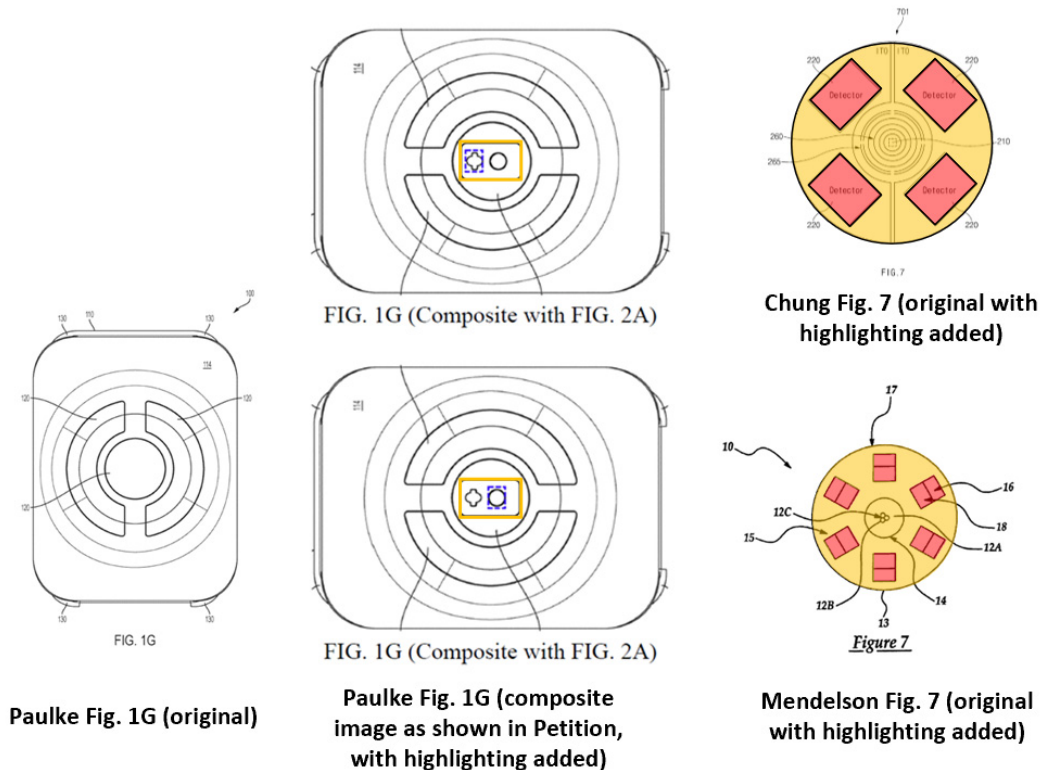
Masimo's focus on Paulke and Mendelson as providing a sensor fails to demonstrate that Mendelson's design is "so related" to Paulke in *appearance* that Mendelson is a proper secondary reference. EX2001, ¶¶79-83. "The question in design cases is not whether the references sought to be combined are in analogous

arts in the mechanical sense,” but rather whether the appearance of the references is “so related” that the “appearance of certain ornamental features in one would suggest application of those features to the other.” *In re Glavas*, 230 F.2d 447, 450 (C.C.P.A. 1956); *see also Termax*, IPR2022-00106, Paper 7 at 29 (rejecting Petitioner’s reliance on aspects other than ornamental appearance).

Masimo relies on Paulke’s central circular biosensor 120 and Mendelson’s and Chung’s circularly-shaped sensors as evidence that Mendelson and Chung are “so related” to Paulke’s design. Pet., 60(“Mendelson and Chung are so related to Paulke *because they disclose suitable sensors* for Paulke’s design” and “Paulke expressly suggests combining its sensor design with a suitable PPG sensor.”). In doing so, Masimo improperly focuses on Mendelson’s *use* as a sensor rather than the visual *appearance* of Mendelson and Paulke. *In re Sung Nam Cho*, 813 F.2d 378, 382 (Fed. Cir. 1987) (reversing Board’s obviousness determination that analyzed design patent “as if it were the subject of an application for a utility patent”) (“[a]lthough it may have been obvious, from a utility stand point, to place cylindrical depressions in crown type caps and to include flaps in the depressions, it does not follow that Cho’s design was obvious”); *Termax*, IPR2022-00106, Paper 7 at 29.

When properly focusing on appearance instead of use, Mendelson and Chung have little in common with Paulke. In contrast to Mendelson’s arrangement of pairs of rectangles and Chung’s arrangement of four rectangles, Paulke altogether lacks

the rectangular shape. Likewise, Mendelson and Chung lack any relationship between its pairs of rectangles and surrounding opposed arc shapes—the Petition identifies no such features in Mendelson or Chung, and there are none.



EX2001, ¶80 (EX1006 Fig. 1G; Pet., 55 (EX1006, Fig. 1G); EX1011, Fig. 7 (annotated), EX1010, Fig. 7 (annotated)).

Masimo’s reliance on the presence of a “circular biosensor” in Paulke and “circular shape” in Mendelson and Chung is alone insufficient to demonstrate Paulke and Mendelson are “so related” as to suggest application of Mendelson’s arrangement of rectangle shapes into Paulke in view of the remainder of the respective designs. Paulke describes a circular shape with a single elongate shape

centered therein, and two non-symmetrical offset apertures of different, non-rectangular shapes (a cross shape and a circle shape). In contrast, Mendelson depicts an outer circular shape surrounding a radially symmetrical array of rectangles aligned in lines bisecting a central circle, and Chung depicts an arrangement of four rectangles positioned opposite one another from inner arc shapes. EX2001, ¶¶80-82.

To be clear, the mere presence of a circle is insufficient to suggest application of Mendelson’s “sensor design” (Pet., 63) and Chung’s “Fresnel lens” (Pet., 73) to Paulke, except for improper use of the claimed design as a roadmap. *Premier Gem*, IPR2016-00434, Paper 9 at 16; *L.A. Gear, Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1124 (Fed. Cir. 1993) (“Not only the individual elements, but the ornamental quality of the combination must be suggested in the prior art. . . . A reconstruction of known elements does not invalidate a design patent, absent some basis whereby a designer of ordinary skill would be led to create this particular design.” (emphasis added)). Masimo’s proposed combination improperly selects isolated components from each of Paulke, Mendelson, Bushnell, and Chung, ignoring the actual appearance of these designs and without explanation as to why its specific combination of isolated features would have been suggested to the DOSA. This is insufficient.

This hindsight reasoning employed by Masimo becomes even more egregious as additional modifications to the Paulke/Mendelson/Bushnell/Chung combination are layered on beyond the depictions of Paulke, Mendelson, Bushnell, and Chung.

b) Masimo’s Proposed Series of Modifications Beyond the Design Depicted in Mendelson are Improper

Masimo acknowledges multiple additional modifications are necessary to provide features of the ’279 patent beyond that depicted by Paulke/Mendelson/Bushnell/Chung, tacitly acknowledging that modifying Paulke based on these references fails to achieve the claimed design. *See, e.g.*, Pet., 67-68 (modify Mendelson to use “one array” of photodiodes instead of pairs, and to have “curved rectangles”); 74 (“extend the ends of the arc-shaped electrodes,” electrodes “shaped to avoid interference,” “chamfered edges.” But these additional modifications are directed to features that are not depicted by either reference and are not trivial or *de minimis*. EX2001, ¶¶84-87. The proposed modifications fail for this additional reason.

For example, Masimo’s assertion that “the difference between the claimed photodiode shapes (curved rectangles) and those in Mendelson (straight rectangles 16/18) was a change known in the art,” fails to demonstrate that such a change would have been considered trivial by a DOSA, and that a DOSA would have further modified the proposed Paulke/Mendelson/Bushnell/Chung combination to achieve

the claimed design’s specific appearance. First, the Petition fails to provide any prior art evidence of “curved rectangles” having the specific appearance proposed by the Petition. The Petition does not rely on Paulke, Mendelson, Bushnell, or Chung for this modification, none of which depict such a feature.

Second, even if “curved rectangles” was a “change known in the art” (which Masimo fails to demonstrate with prior art evidence), the Federal Circuit has made clear that mere knowledge of a shape is insufficient:

If we adopted the logic of the Board and concluded that the substitution of the Carder shapes for those in the Harvey prior art case would render the ’904 and ’906 design applications obvious *just because the Carder shapes were well-known and frequently used in vase designs*, each and every prior art bowl or vase shape ever publicly disclosed would render obvious any generally similar vase shape. Clearly, *this cannot be the case*.

Harvey, 12 F.3d at 1065 (emphasis added).

Third, Masimo’s assertions that a DOSA would have created curved edges “to visually parallel the corresponding curvatures of Paulke’s . . . arc-shaped portions and the sensor’s overall circular shape and” to “provide a visually consistent, simplistic, and appealing look of concentric circles” ignores that *both* Mendelson and Chung already includes an outer circle shape yet utilizes rectangle shapes *without* curved edges. Pet., 67. In other words, the purported reason for modifying Mendelson’s rectangles to have curved edges—to complement curved lines of Paulke—ignores that Mendelson and Chung already include a curved outer shape in

combination with straight edges. Mendelson and Chung thus each undermine Masimo's proffered reasons for this modification. *See Termax*, IPR2022-00106, Paper 7 at 30 ("the notably consistent symmetrical nature of both designs would not suggest that a skilled designer would destroy that symmetry by using a rounded platform with a rectangular platform." (citing *Apple*, 678 F.3d at 1331)). Masimo's proposed modification and motivation to do so is unsupported and fatally deficient.

The deficiencies discussed above are not remedied by Masimo's reliance on purported utility motivations. The teachings of references can properly be combined in a design patent context if they are so related that the *appearance* of certain ornamental features in one reference would have suggested application of those features to another. When determining obviousness of a design patent claim, "the focus must be on appearances and not uses." *See Harvey*, 12 F.3d at 1064 (reversing Board's obviousness determination where "the Board improperly mixed principles of obviousness for utility patents with those for ornamental design patents."); *In re Sung Nam Cho*, 813 F.2d at 382 (reversing Board's obviousness determination that analyzed design patent "as if it were the subject of an application for a utility patent"); *Termax*, IPR2022-00106, Paper 7 at 29 (rejecting Petitioner's reliance on aspects other than ornamental appearance, and indicating "the Federal Circuit has made clear that the motivation to modify one design with another is limited to whether the articles are 'so related' (*i.e., so similar in appearance*)").

Masimo ignores this well-established principle of design patent law, embarking on a multi-layered series of modifications based on purported utility considerations. Pet., 65-74. As one example, Masimo’s assertion that “rather than use both of Mendelson’s six-photodiode arrays with Paulke as shown above, a DOSA alternatively would have been motivated to use one array, as shown below,” is unsupported by any aspect related to the appearance of the photodiode array. Pet., 66. This deficiency is not remedied by Masimo’s purported motivation to “improve the performance of the PPG” (and which is also contrary to Mendelson’s explicit teachings of utilizing “far” and “near” detectors). *Id.*; *see also* EX1011, 9:26-34, 13:19-22. Moreover, even presuming a DOSA would have been motivated to make the device “cheaper and easier” (which Masimo fails to demonstrate), Masimo fails to demonstrate such a motivation would have led to the particular ornamental appearance that it proposes. *See Termax*, IPR2022-00106, Paper 7 at 29.

Masimo’s multiple modifications beyond the Mendelson designs—and the tortured logic required to support such modifications—is improper. Masimo’s obviousness analysis in Ground 1 is fatally deficient for at least these reasons.

D. Ground 2: Masimo Fails to Demonstrate that the Claimed Design is Obvious Based on Yuen in View of Mendelson, Bushnell, and Chung

Ground 2 is fatally flawed because the Petition fails to demonstrate that Yuen is a proper primary reference. While the inner circular shape formed by multiple

four-sided shapes, and the protruding circular element with a beveled edge protruding outward from an outermost continuous circle and having a domed appearance, are central to the overall appearance of the claimed design, any similar aspects are entirely lacking from Yuen.

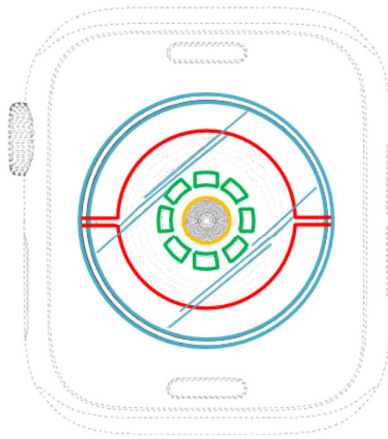


FIG. 4

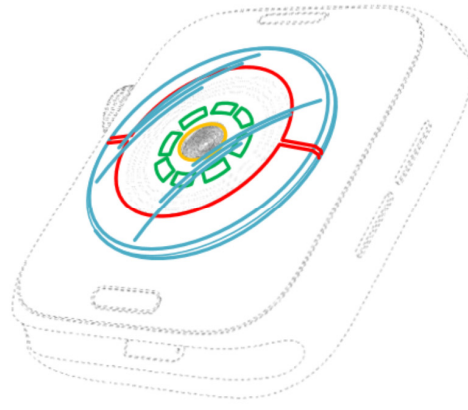


FIG. 2

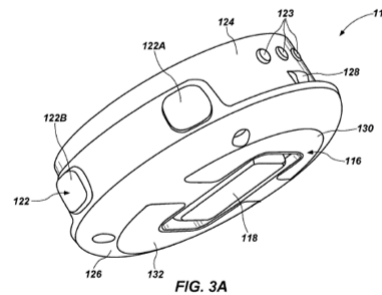
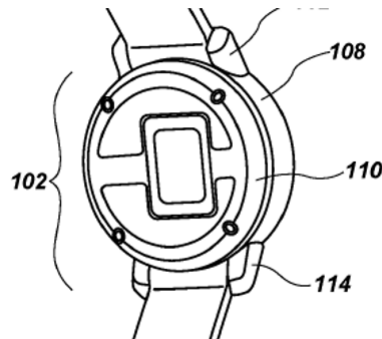


FIG. 3A

EX2001, ¶¶88-89 (Top: EX1001, Figs. 2 and 4 (annotated)); Bottom: EX1007, Figs. 1B (excerpted) and 3A).

Yuen entirely lacks the appearance of concentric rings suggesting a bulls-eye or ripples in a pond. Given this prominent difference, Masimo fails to demonstrate that Yuen has an appearance that is “basically the same,” or similar at all, compared

to the claimed design. The obviousness analysis can end here. *See, e.g., Vitro Packaging*, IPR2015-00947, Paper 13 (“we need not reach the second step of the obviousness analysis”).

Moreover, the Petition relies on layers of modifications based on a four-way combination, along with yet additional modifications not depicted by the references, that significantly change Yuen’s appearance, in an attempt to recreate the claimed design. The gaps in the Petition’s analysis highlight that Masimo cannot demonstrate unpatentability of the design claim based on the evidence set forth in the Petition.

1. Yuen is Not a Proper *Rosen* Reference

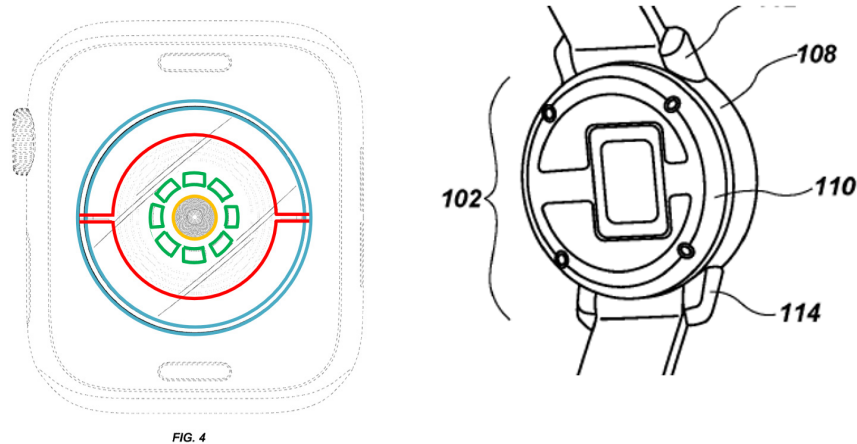
Masimo’s obviousness theory is based on the flawed premise that “any differences between Yuen and the D’279 patent do not change the designs’ overall visual similarity.” Pet., 77. In making this assumption, Masimo fails to address the vastly different overall appearance provided by Yuen in comparison to the claimed design. *See* EX2001, ¶90. Yuen entirely lacks an inner circular shape formed by an arrangement of multiple elongated four-sided shapes, and the protruding circular element with a beveled edge protruding outward from an outermost continuous circle and having a domed appearance, and lacks the contribution of such features to the claimed design’s overall appearance. Additionally, Masimo does not address the differences between Yuen’s asymmetric and squarish opposed shapes that provide a

markedly different overall appearance from the '279 patent's outer circular shape. The Petition also fails to address additional prominent differences between the claimed design and Yuen, such as the relationship between the claimed design's outer circular shape formed by the arrangement of elongated arch shapes within an outermost continuous circle, that together with the inner circular shape provide a concentric circular appearance. These differences between Yuen and the claimed design result in an overall appearance that is asymmetrical and bulky as opposed to the claimed design's appearance of sleek and balanced concentric circles and its protruding circular element having a domed appearance. Each of these differences are enough to independently disqualify Yuen as a proper primary reference because of the significantly different overall appearance that results from these features. *See Levitation Arts*, PGR2018-00073, Paper 14 at 16-22; *Dorman Products*, IPR2014-00542, Paper 10 at 5; *In re Harvey*, 12 F.3d at 1063.

a) Masimo Fails to Properly Analyze the Inner Circular Shape Formed by the Arrangement of Four-Sided Shapes of the Claimed Design in Comparison to Yuen

Yuen lacks the claimed design's distinctive inner circular shape formed by an arrangement of four-sided shapes, and the claimed design's resulting concentric circle overall appearance. Masimo does not identify an inner circular shape or even a single four-sided shape arranged to form such an inner circular shape in Yuen's design. Indeed, Yuen's design completely omits any inner circular shape formed by

elongated four-sided shapes and lacks any impression of concentric circles provided by the '279 patent. *See* EX2001, ¶¶91-98.



EX2001, ¶90 (EX1001, Fig. 4 (annotated)); EX1007, Figs. 1B (excerpted)).

Yuen depicts a rear face of a device having an offset sensor component, and describes that “PPG sensor 118 may include any PPG sensor 118 known in the art” EX1007, Fig. 1B; [0032]; *see also* [0041] (“PPG sensor 118”); Pet., 82. From this terse description, Masimo extrapolates “a DOSA would have understood Yuen’s PPG sensor included at least one rectangular photodiode.” Pet., 83. But nothing in Yuen specifically mentions a photodiode, much less a photodiode having the specific shape that Masimo annotates in Fig. 4 below.

Masimo relies on
appearance of added
rectangle that is not shown
or described by Yuen

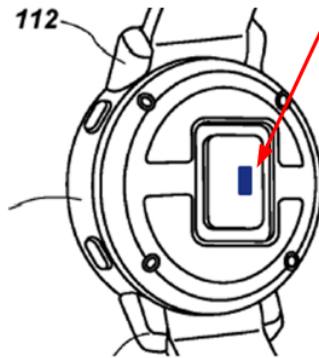


FIG. 4 (Composite)

EX2001, ¶¶95 (Pet., 84 (blue rectangle added by Petition to EX1007, Fig. 4, red arrow and text added)).⁴

Even if an ordinary designer would have understood Yuen as including a photodiode having a rectangle shape (which Yuen never mentions and Masimo fails to demonstrate), Masimo’s analysis is fatally deficient because Masimo relies on the appearance of *a single offset rectangle*. Here again, Masimo ignores that a single offset rectangle has a different appearance that lacks the claimed design’s concentric circular arrangement of four-sided shapes that forms an inner circular shape and contributes to the overall concentric circular appearance. EX2001, ¶¶94-96. The

⁴ Masimo describes its figure as a “Composite” but does not specify what Yuen’s image is composited with to produce the image.

Petition is silent on this prominent difference, merely concluding that though “Yuen differs from the claimed design because Yuen only includes the one rectangle above... Yuen remains an appropriate primary reference,” without evidence or explanation.⁵ *See*, Pet., 84. This is insufficient to meet its burden.

Additionally, Masimo ignores that the purported “rectangular photodiode” is not visible together with Yuen’s external features because, if present at all, it would be an internal component isolated from any aesthetic appearance of the external components. *See Levitation Arts*, PGR2018-00073, Paper 14 at 21.

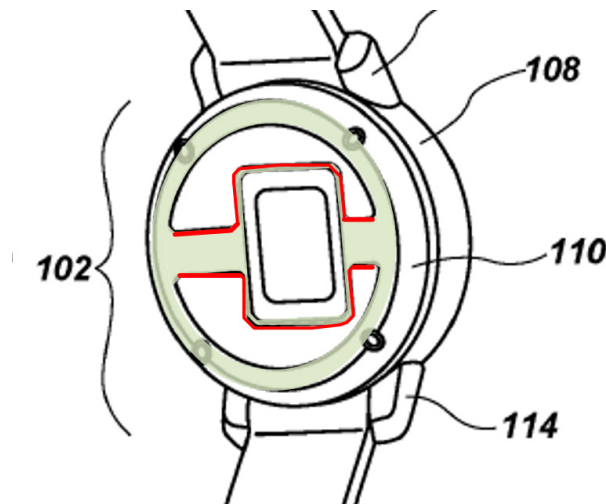
Yuen’s complete lack of an inner circular shape provided by the arrangement of multiple elongated four-sided shapes highlights that Yuen has a different appearance and is not a proper primary reference. Accordingly, Ground 2 fails. EX2001, ¶¶96-98.

⁵ This is not remedied by the bare assertion that Yuen remains an appropriate primary reference “for the same reasons discussed above regarding Paulke,” which does not address Yuen’s appearance and which are likewise unsupported by any evidence or explanation.

b) Masimo Fails to Properly Analyze the Outer Circular Shape Formed by the Arches of the Claimed Design in Comparison to Yuen

In contrast to the '279 patent's design, Yuen depicts asymmetrical, squarish shapes that are spaced apart from one another in an opposed relationship. These features provide an immediately apparent overall appearance different from the claimed design's appearance of concentric circles resulting from the outer circular shape provided by the arches. EX2001, ¶¶99-104.

Yuen's opposed shapes are *asymmetrical*. For example, the left side of the shapes is notably wider than the right side of the shapes (e.g., as shown in FIG. 1B).

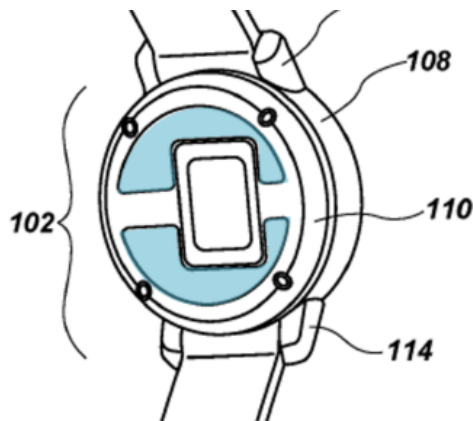


EX2001, ¶100 (EX1007, Fig. 1B (excerpted, annotated)).

The asymmetric appearance is not just a result of the perspective shown in Fig. 1B—Masimo admits elsewhere in the Petition that Yuen's shapes are asymmetric. *See*, Pet., 91 (“Yuen's asymmetrically located PPG sensor”). EX2001, ¶¶101-102.

Additionally, Yuen's opposed shapes are not arch-shaped but instead have a square, off-center cut-out. The inner edge of the opposed shapes are not curved or circular at all, and certainly do not evoke an appearance of concentric circles.

As yet a further prominent difference, Yuen's features provide an appearance of two separate, opposed shapes. EX2001, ¶103. Yuen's shapes are meaningfully wider than the claimed design's elongated thin arch elements, and the ends of Yuen's shapes are separated by a relatively large gap. These prominently visible features provide a different overall appearance that is bulky and dominated by the opposed shapes, providing a crowded overall appearance rather than the '279 patent's streamlined, elegant concentric circle appearance. The Petition's Ground 2 analysis ignores these aspects of the claimed design, and the differing appearance of Yuen's shapes.



EX2001, ¶103 (EX1007, Fig. 1B (excerpted, annotated)).

The above deficiencies are not remedied by Masimo's acknowledgement that "Yuen's arc-shaped portions have a slightly different shape and spacing than in the claimed design." Pet., 80. Masimo merely concludes "that difference, or any difference in the size, shape, or spacing of the arc-shaped portions of Yuen and the claimed design, does not alter the overall visual similarity of these designs," without following this assertion with any analysis of these differences or why they purportedly do not alter the overall visual appearance. *Id.* Here again, Masimo never addresses the contribution of these prominent features to the claimed design's overall appearance, ignoring the visual appearance of the claimed design's concentric circles that is lacking from Yuen's squarish shapes. These differences are not a mere matter of degree—Yuen's opposed shapes are asymmetric and squarish, immediately contrasting with the '279 patent's arches and its overall appearance of concentric circles. EX2001, ¶104.

c) Masimo Fails to Properly Analyze the Domed Appearance and the Beveled Edge Protruding Outward From the Outermost Continuous Circle

Masimo's assertion that Yuen has basically the same overall visual impression is based on the false assertion that "Yuen's design differs only slightly because it has a curved edge . . . instead of vertical and chamfered edges." Pet., 81. But this assertion overlooks the readily-apparent planar profile of Yuen's design, which lacks the domed appearance of the claimed design. Contrary to

Masimo's annotations, Yuen depicts a curved outer profile that transitions to distinctly planar regions that occupy the majority of the face.

The Petition ignores Yuen's readily-apparent planar shapes that occupy the bulk of Yuen's rear face

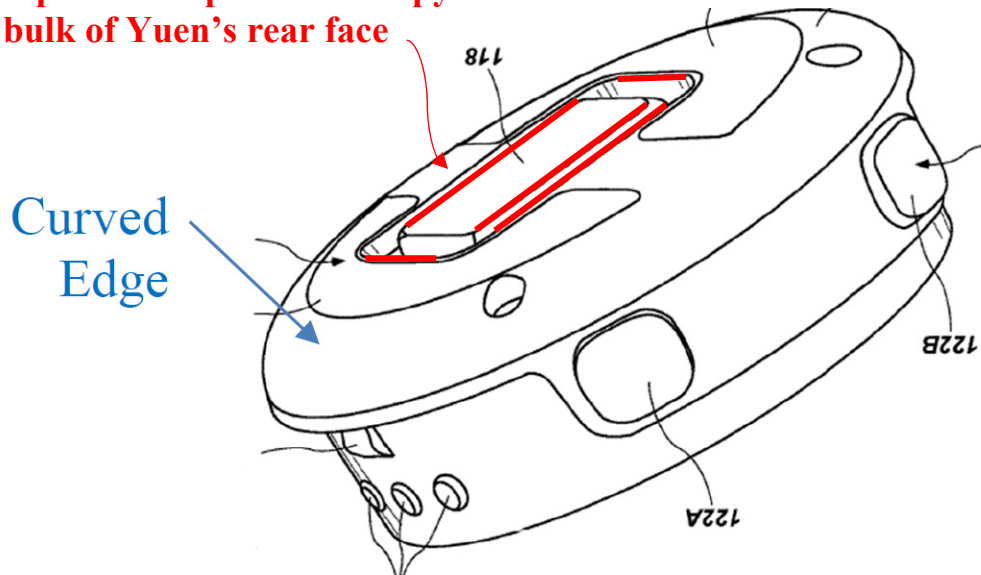


FIG. 3A (rotated)

EX2001, ¶¶105-106 (Pet., 82 (citing EX1007, FIG. 3A) (annotated)).

Masimo's annotations at page 81 ignore Yuen's actual profile, alleging a continuous convex shape that is simply not depicted by Yuen. *See*, Pet., 81 (annotating Yuen, FIG. 3A with a curved line that does not follow Yuen's actual shape).

Masimo's Ground 2 analysis ignores this readily visible aspect of Yuen. Masimo's reliance on Yuen as a primary reference is based on a shape that Yuen simply does not depict.

As to the beveled edge, Masimo's acknowledges that Yuen lacks this aspect of the claimed design, but merely assumes—*without any explanation or evidence*—that “any differences between the design of Yuen and the claimed design would not prevent Yuen's use as a primary reference.” Pet., 82; EX2001, ¶107. Such a conclusory assertion is insufficient to satisfy its burden.

d) Masimo Fails to Properly Analyze the Outermost Continuous Circle and Its Relationship with the Arches and Other Features of the Claimed Design in Comparison to Yuen

Masimo's obviousness theory ignores the different overall appearance flowing from the claimed design's outermost continuous circle, and the relationship between the outermost continuous circle and the outer circular shape provided by the spaced-apart elongated arches formed within the outermost continuous circle. *Supra*, §IV.A. As described above, the outermost continuous circle encompasses the other features of the claimed design and sets the tone of the concentric circular overall impression. *See supra* §IV.A; EX2001, ¶¶20-27, 107.

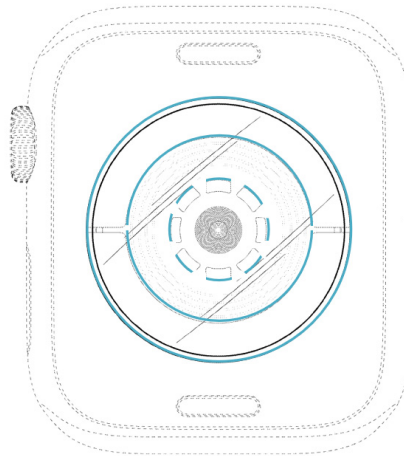


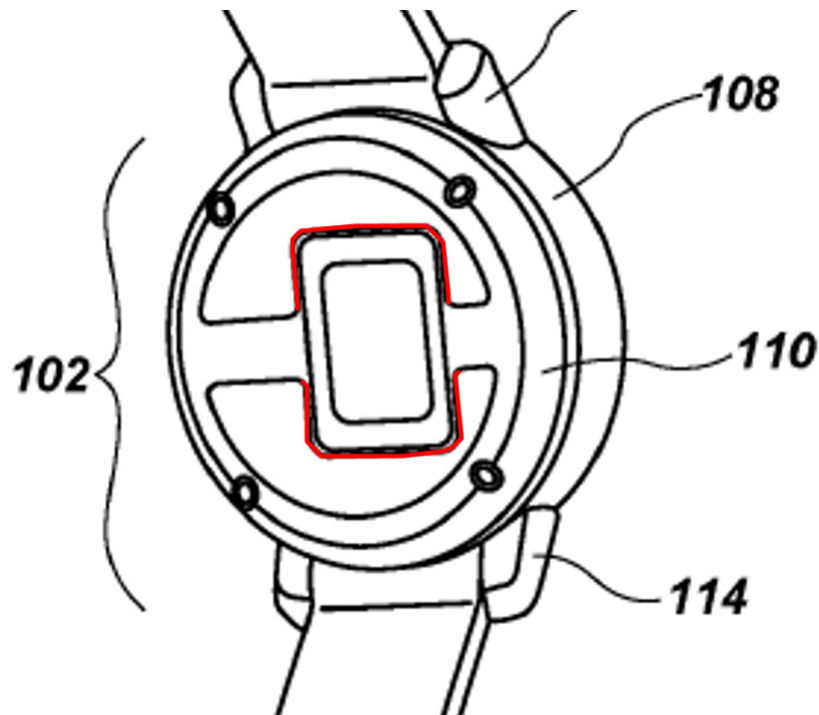
FIG. 4

EX2001, ¶107 (EX1001, Fig. 4).

The Petition's analysis of Ground 2 is silent as to this outermost continuous circle shape and its contribution to the claimed design's overall appearance. The Petition ignores that Yuen lacks the outermost continuous circle altogether, instead depicting a line showing the change in slope of the raised element and the device's back, and as a result, Yuen also lacks the overall impression of the '279 patent's design. EX2001, ¶108.

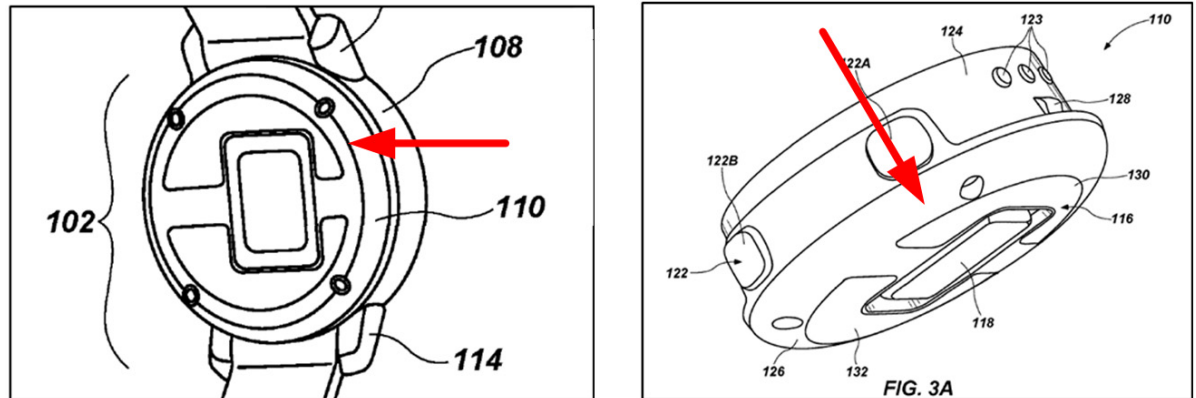
Additionally, Masimo neglects to address the position of the outermost continuous circle relative to the inner edges of the arches, and further relative to the outer edges of the inner circular shape formed by the four-sided shapes. While the claimed design's outermost continuous circle and inner edge of the arches are spaced to provide a streamlined, elegant appearance of circles of decreasing size, Yuen

depicts thick, squarish, asymmetric opposed shapes that entirely lack a ring-like appearance.



EX2001, ¶108 (EX1007, Fig. 4 (excerpted, annotated to highlight squarish inner edge of opposed shapes)).

Masimo also fails to address the claimed design’s relationship between the outer circular shape formed by the arches and the size of the outermost continuous circle (e.g., the “thickness” of the arches). *See supra* §IV.A; EX2001, ¶¶100-102. The small thickness relative to the diameter of the outermost continuous circle contributes to the claimed design’s overall appearance as an elegant series of concentric circles, rather than a bulky assembly of shapes having a thicker and imprecise appearance.



EX2001, ¶109 (EX1007, Figs. 1B and 3A (excerpted, annotated)).

To the extent Masimo relies on the line delineating the back face of the watch in Fig. 1B (which the Petition never mentions), Yuen's Fig. 3A confirms that this line merely represents curvature of the watch's rear surface. Additionally, Yuen's opposed shapes are spaced inwardly significantly from this line, here again conveying a different overall appearance that lacks the claimed design's streamlined, well-proportioned appearance. EX2001, ¶110.

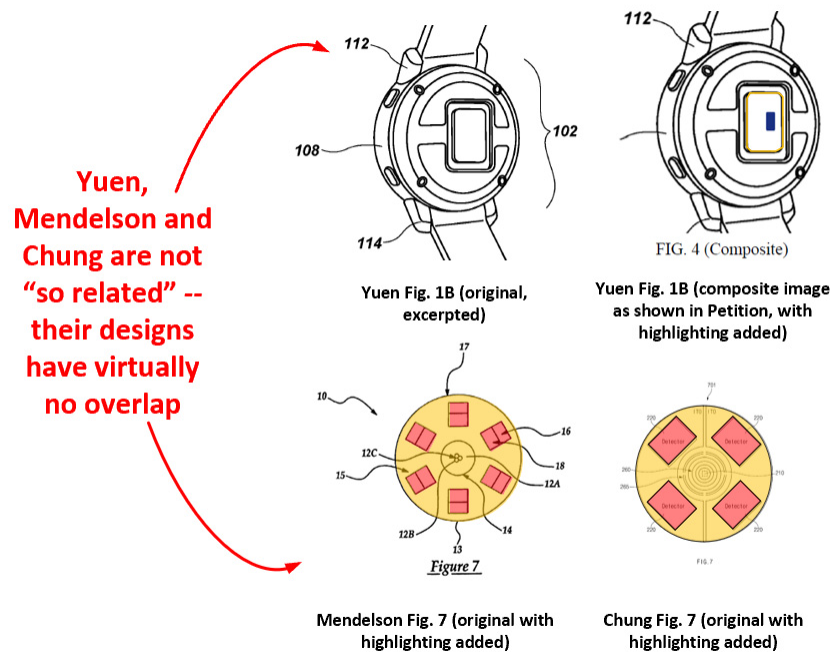
Because the Petition has failed to provide any explanation that accounts for these visible differences, Masimo has not demonstrated that Yuen is a proper primary reference. See *High Point Design*, 730 F.3d at 1314; *Harvey*, 12 F.3d at 1063.

2. Masimo Fails to Demonstrate that it Would Have Been Obvious to a DOSA To Modify Yuen in View of Mendelson, Bushnell, and Chung To Create the Claimed Design

a) Mendelson and Chung Are Not Proper Secondary References for Combination with Yuen

The Petition fails to demonstrate that Mendelson’s and Chung’s sensor designs are “so related” to Yuen that “the appearance” of certain ornamental features in Mendelson or Chung would suggest the application of those features to Yuen. *Glavas*, 230 F.2d at 450.

Masimo relies on Yuen’s description that its device can include “any PPG sensor [] known in the art” and Mendelson’s sensor as evidence that Mendelson and Chung are “so related” to Yuen’s design. Pet., 87 (“Mendelson and Chung are so related to Yuen because they disclose suitable PPG sensors for Yuen’s design”). In doing so, Masimo improperly focuses on Mendelson’s use as a sensor rather than the visual appearances of Mendelson and Chung compared to Yuen. *Termax*, IPR2022-00106, Paper 7 at 29. In contrast to Mendelson’s arrangement of pairs of rectangles, Yuen lacks any corresponding rectangular shape whatsoever. EX2001, ¶¶111-112. Likewise, while Mendelson has a circular perimeter shape and radially-symmetric rectangle arrangement, Yuen has a squarish arrangement between opposed, asymmetric shapes. *Id.*



EX2001, ¶¶112 (EX1007, Fig. 1B (excerpted); EX1007, Fig. 1B as modified in Petition p. 83 (annotated); EX1011, Fig. 7 (annotated), EX1010, Fig. 7 (annotated)).

Mendelson’s appearance, having a radial arrangement of rectangles surrounding a central circular shape, lacks any features similar to Yuen, having an elongate central shape (yellow). EX2001, ¶¶112-113. Masimo never specifically addresses these prominent differences, and thus fails to satisfy its burden of demonstrating the references are “so related that the appearance of certain ornamental features in one would suggest the application of those features to the other.” *Glavas*, 230 F.2d at 450.

To be clear, Masimo’s reliance on the presence of a “PPG sensor” in Yuen and “suitable PPG sensors” in Mendelson and Chung is alone insufficient to

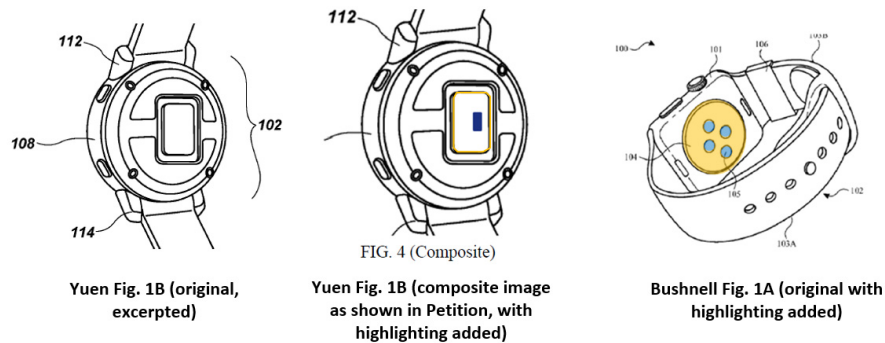
demonstrate Yuen and Mendelson are “so related.” Pet., 87. Nothing in Mendelson’s or Chung’s symmetrical radial arrangement suggests application to Yuen’s offset/asymmetrical sensor, and the mere presence of a space in Yuen’s design described as providing the function/use of a sensor is insufficient to suggest application of Mendelson’s or Chung’s specific ornamental appearance, except for improper use of the claimed design as a roadmap. *Premier Gem*, IPR2016-00434, Paper 9 at 16; *L.A. Gear*, 988 F.2d at 1124. Accordingly, Masimo has failed to demonstrate that Mendelson and Chung are appropriate secondary references.

b) Bushnell is Not a Proper Secondary Reference for Combination with Yuen

The Petition ignores readily apparent differences of Bushnell’s design compared to Yuen, which highlight that the references are not “so related that the appearance of certain ornamental features in one would suggest the application of those features to the other.” *Glavas*, 230 F.2d at 450. Masimo fails to demonstrate any suggestion in the designs’ appearances to incorporate Bushnell’s features into Yuen’s design.

Bushnell’s rear face has a circular feature protruding from the center of a generally squarish body. *See* EX1009, Figs. 1A, 2A. Unlike Bushnell, Yuen’s rear face is circular with a curved portion at the *outer perimeter edge* and regions to the interior that are relatively flat. *See* EX1007, Fig. 3A.

Further, as illustrated below, Bushnell's rear wristwatch face does not include visual elements similar to Yuen's opposed, asymmetrical shapes and offset rectangular portion. EX2001, ¶¶114-115.



EX2001, ¶115 (EX1007, Fig. 1B (excerpted); Pet. 83 (EX1007, Fig. 1B as modified in Pet. (annotated); EX1009, Fig. 1A (annotated)).

The above deficiencies are not remedied by Masimo's assertion that "Bushnell is so related to Yuen because it discloses a suitable design for Yuen's device," and "both references concern a circular convex surface that protrudes from the back of the wrist-worn device and incorporates the devices sensors." Pet., 89. Contrary to Masimo's characterization, Yuen's alleged "circular convex surface" does not protrude from the back surface, but rather *is* the back of the wrist-worn device. EX2001, ¶116. Masimo further asserts "the designs are related because Yuen suggests using any known PPG sensor ... which Bushnell discloses." Pet., 90. As described above with regard to Mendelson and Chung, Masimo's reliance on the presence of a PPG sensor, and any components of such a sensor, fail to demonstrate

the *appearance* of Yuen and Bushnell are “so related” as to suggest application of Bushnell’s protruding surface to Yuen. *Supra*, §IV.D.2.a; *Termax*, IPR2022-00106, Paper 7 at 29. Here again, the prominent differences in appearance, with almost no visual similarity, confirm the improper hindsight nature of Masimo’s analysis. *L.A. Gear*, 988 F.2d at 1124. Accordingly, Masimo has failed to demonstrate that Bushnell is an appropriate secondary reference.

c) Masimo’s Proposed Series of Modifications Beyond the Designs Depicted in Mendelson, Bushnell, and Chung are Improper

Masimo acknowledges multiple additional modifications are necessary to provide the features of the ’279 patent beyond that depicted by Yuen/Mendelson/Bushnell/Chung, tacitly acknowledging that the proposed combination fails to achieve the claimed design. Pet., 91-93(“one of Mendelson’s six-photodiode arrays”, and to have “curved rectangle-shaped photodiodes”). But these additional modifications are directed to features that are not depicted by either reference and are not trivial or *de minimis*. EX2001, ¶¶117-121. The proposed modification fails for this additional reason. *See Harvey*, 12 F.3d at 1065.

For example, Masimo’s assertion that “the differences between the six straight rectangle-shaped photodiodes shown above and the claimed design (eight curved rectangle-shaped photodiodes) are changes that a DOSA would have been motivated to make” (Pet., 92), fails to demonstrate that such a change would have been

considered trivial by a DOSA, and that a DOSA would have further modified the proposed Yuen/Mendelson/Bushnell/Chung combination to achieve the claimed design's specific appearance.

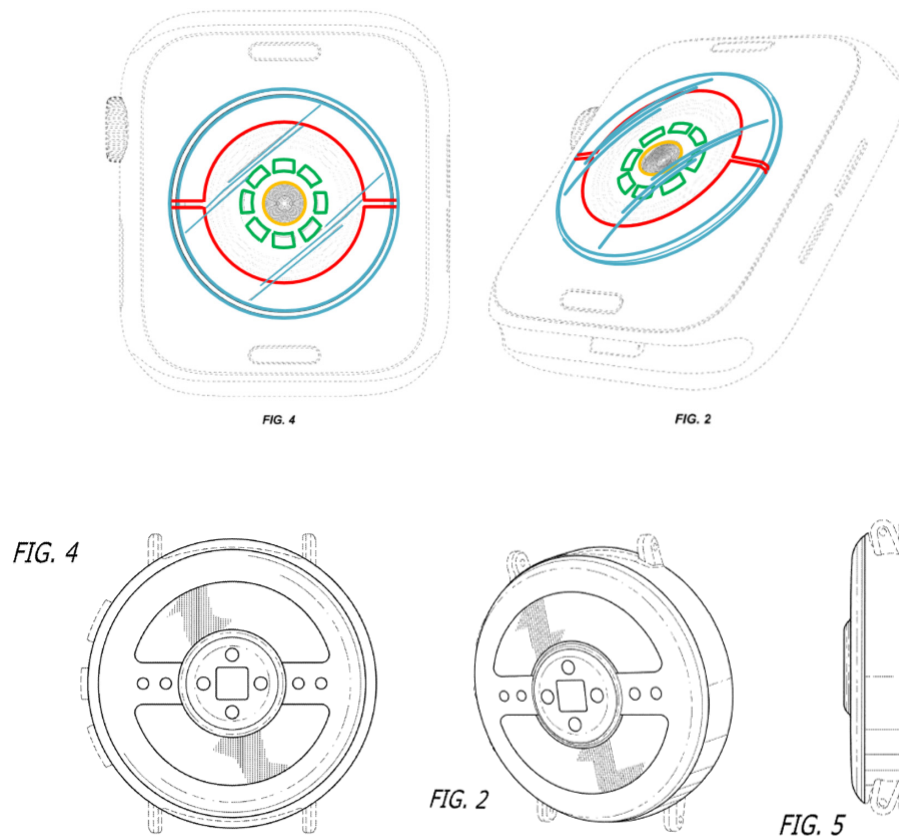
As described above, Masimo fails to provide evidence that “curved rectangles” were known in the prior art, and even if the shape were known, this is not sufficient to support Masimo’s modification beyond what is shown in the Yuen, Mendelson and Bushnell references. *Supra* §IV.C.5.b. Further, Masimo’s purported reasons for modifying the rectangular arrangement of the Yuen/Mendelson/Bushnell/Chung combination are not suggested by the appearance of the references, but instead depart from the specific designs depicted in the references. *Id.*

The Petition’s analysis is further undermined by the internal shape delineated by the inner edges of Yuen’s opposed shapes, which do not form a curved or circular shape, but rather a rectangular shape. Puzzlingly, Masimo contends Mendelson’s and Chung’s sensors “have a circular shape especially suited for the available area between Yuen’s arc-shaped electrodes.” Pet., 87. Yuen, however, clearly lacks any such area having a circular shape similar to Mendelson or Chung. EX2001, ¶119.

E. Ground 3: Masimo Fails to Demonstrate that the Claimed Design is Obvious Based on Fong in View of Mendelson, Bushnell, and Chung

Ground 3 is fatally flawed because the Petition fails to demonstrate that Fong is a proper *Rosen* reference. From there, the Petition relies on multiple layers of modifications based on a four-way combination, along with yet additional modifications not based on features depicted in the references at all, in an attempt to recreate the claimed design. Each of these deficiencies highlight that the Petition is insufficient to demonstrate a reasonable likelihood of unpatentability.

As described above, the '279 patent depicts a design having a streamlined appearance of multiple concentric circles including, in part, a protruding circular element with a beveled edge protruding outward from an outermost continuous circle (blue), an outer circular shape formed by thin, elongated arches positioned within the outermost continuous circle (red), and an inner circular shape formed by an arrangement of multiple elongated four-sided shapes (green). *See* EX1001, Figs. 1-9.



EX2001, ¶¶122-123 (Top: EX1001, Figs. 2 and 4 (annotated); Bottom: EX1008, Figs. 4, 2, and 5).

While the inner circular shape formed by multiple four-sided shapes is central to the claimed design’s concentric circle overall appearance, any similar aspect is entirely lacking from Fong. Instead, Fong depicts centrally arranged square and diamond shapes. Additionally, unlike the domed appearance and continuous beveled edges of the claimed design, Fong has a stepped surface of relatively planar region. Given these prominent differences, and their impact on overall appearance, Fong’s appearance is meaningfully different, and certainly not “basically the same” as the claimed design.

Beyond failing to demonstrate a proper primary reference, these differences also highlight the lack of visual similarity between Fong and Mendelson, Bushnell, and Chung that prevents the specific modifications Masimo proposes. Additionally, the Petition relies on layers of modifications that significantly change Fong's appearance, and that are not depicted by Fong, Mendelson, Bushnell, or Chung to recreate the claimed design. The Petition's Ground 1 obviousness theories are deficient, and the gaps in its analysis highlight that Masimo cannot demonstrate unpatentability of the design claim based on the evidence set forth in the Petition.

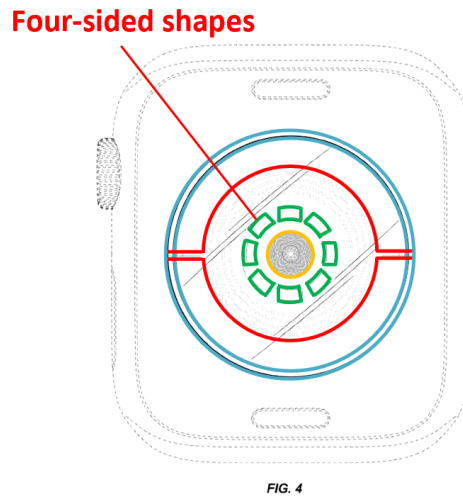
1. Fong is Not a Proper *Rosen* Reference

Masimo's obviousness theory is based on the flawed premise that "Fong's only differences from the claimed design would be that Fong's circular array has four circles instead of eight rectangles, and Fong has curved edges." Pet., 105. But in making this assertion, the Petition ignores many aspects of Fong that contribute to a vastly different appearance in comparison to the claimed design. *See* EX2001, ¶124. Masimo fails to specifically address significant aspects of Fong, such as Fong's lack of an inner circular shape formed by an arrangement of elongated four-sided shapes, Fong's profile that lacks a domed appearance or continuous beveled edge protruding outward from the outermost continuous circle, and Fong's spacing between the opposed shapes that include a row of interposed circular elements separating the opposed shapes, each of which yields a markedly different overall

appearance. Moreover, the Petition fails to address additional prominent differences between the claimed design and Fong, such as the relationship in the claimed design between the arches that form an outer circular shape and the outermost continuous circle. Masimo's assumption that Fong is "basically the same" despite these differences is based on multiple factual and legal errors. The prominent differences between Fong and the claimed design, some of which are wholly unaddressed by the Petition, confirm that Fong has a markedly different appearance, and that the Petition fails to demonstrate Fong is a "single reference that creates basically the same visual impression." *Levitation Arts*, PGR2018-00073, Paper 14, 16-22; *Dorman Products*, IPR2014-00542, Paper 10 at 5; *Harvey*, 12 F.3d at 1063.

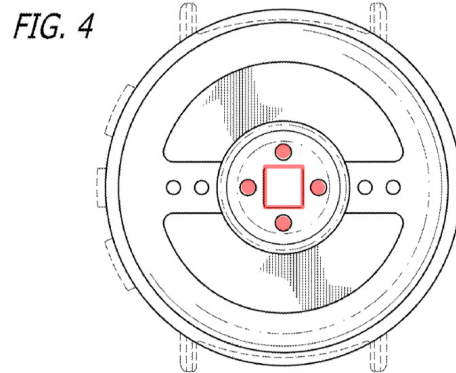
a) Masimo Fails to Properly Analyze the Inner Circular Shape Formed by the Arrangement of Four-Sided Shapes of the Claimed Design in Comparison to Fong

As discussed above, the claimed design includes an inner circular shape formed by the arrangement of multiple elongated four-sided shapes forming which contributes to the concentric circle appearance that evokes a bullseye or ripples in a pond. *Supra*, §IV.A.



EX2001, ¶125 (EX1001, Fig. 4 (annotated)).

Masimo relies on the central square in Fong’s design as providing “one or more central rectangles,” and its four circles (red) as providing a purported “circular array.” Pet., 102-103. But Masimo ignores aspects of Fong that render it significantly different than the claimed design’s circular arrangement of four-sided shapes, and lacks any explanation or evidence to support its conclusory assertion that Fong’s appearance is basically the same despite these conspicuous differences.



EX2001, ¶126 (EX1008, Fig. 4 (highlighting added)).

Masimo merely assumes that, if the '279 patent's circular arrangement of four-sided shapes is included within the claimed scope, "Fong remains an appropriate primary reference for the same reasons discussed above regarding Paulke." Pet., 103. Such a bare conclusion that lacks any comparison of Fong's four circles and the claimed design—not followed by the requisite analysis—fails to satisfy Masimo's burden. Instead, these features highlight fundamental differences compared to the claimed design—circle shapes positioned around a central square in a diamond arrangement. EX2001, ¶127.

The Petition cites paragraphs 117-120 of the Delman Declaration, but these paragraphs parrot the petition without any additional underlying explanation. Compare EX1003, ¶¶120-122 with Pet., 101-103. Such an "*ipse dixit* declaration" is insufficient and does nothing to remedy the Petition's deficient analysis. *TQ Delta*, 942 F.3d at 1362-64.

To be clear, Fong's four circles give the impression not of a circular array but of a diamond-shaped configuration. EX2001, ¶127. The diamond-shaped appearance is emphasized by the positioning of the four circles along flat edges of the central square. *Id.* Moreover, Fong's circles lack an elongate shape that do not extend towards one another, further emphasizing the lack of a circular appearance. *Id.* Masimo never addresses the appearance conveyed by Fong's four circles positioned along flat edges of a square, which do not suggest an inner circular shape in their arrangement. Fong lacks the inner circular shape provided by the arrangement of multiple elongated four-sided shapes of the '279 patent, and Fong's central design provides a meaningfully different appearance that contrasts with the '279 patent's overall appearance.

b) Masimo Fails to Properly Analyze the Outer Circular Shape Formed by the Arches of the Claimed Design in Comparison to Fong

As discussed above, the claimed design includes an outer circular shape formed by an arrangement of unified thin, elongated arch shapes that contribute to the '279 design's overall appearance of well-proportioned concentric circles. *Supra*, §IV.A.

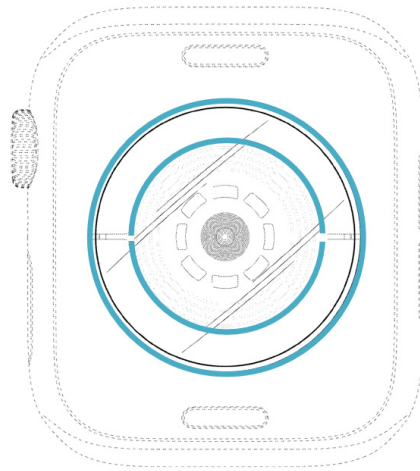
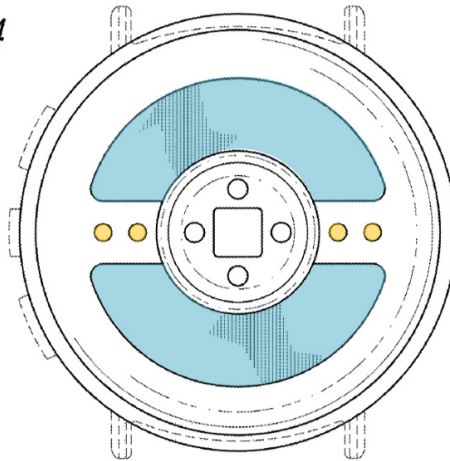


FIG. 4

EX2001, ¶129 (EX1001, Fig. 4 (annotated)).

In contrast to the '279 patent's design, Fong depicts wide, opposed shapes (below, blue) separated from one another at the ends by a significant gap that provides an appearance of opposed, divided shapes. EX2001, ¶¶128-129. Moreover, this separation is visually highlighted by the presence of multiple circular elements (yellow). In particular, two circular elements are positioned between each end of the opposed shapes (e.g., as shown in Fig. 4). These circular elements are significant to Fong's appearance, aligned with two additional circular elements and the central square. Together, the circular elements and central square extend across the entire width of the opposed shapes and visually divides the design into upper and lower portions (blue) separated by a middle row of the circle and square elements. EX2001, ¶¶128-130.

FIG. 4



EX2001, ¶¶128 (EX1008, Fig. 4 (highlighting added)).

Far from the claimed design's unified, outer circular shape, Fong's round elements separating ends of the two opposed shapes highlight the distinct and opposed appearance of Fong's shapes. EX2001, ¶128.

The differences in Fong's visual appearance compared to the '279 patent are not a mere matter of degree. Fong's opposed shapes are spaced apart from one another not only by a large space, but by additional elements interposed in this space that are significant to Fong's different appearance. EX2001, ¶¶128-131. Masimo fails to specifically address these aspects of Fong.

To be clear, this significant difference in Fong's appearance is not remedied by any further modification. Masimo never even proposes modification based on the appearance of Mendelson, Bushnell, or Chung to somehow alter this aspect of

Fong to achieve the claimed appearance, none of which depict an outer circle provided by arch shapes at all. Fong's design has a significantly different appearance due to the band of elements extending across the middle of the face, and Masimo never specifically addresses it.

Accordingly, Fong is not a proper primary reference and Masimo's analysis is fatally deficient for this independent reason.

c) Masimo Fails to Properly Analyze the Domed Appearance and the Beveled Edge Protruding Outward From the Outermost Continuous Circle

Masimo's conclusion that Fong has basically the same overall visual impression is based on the unsupported assertion that "a DOSA would have understood that Fong's design includes a convex surface." Pet., 100. Critically, however, this bare assertion is unsupported by any explanation or evidence, and is belied by the appearance of Fong itself. Unlike the profile of the claimed design, Fong depicts planar surfaces separated by a step. EX2001, ¶133.

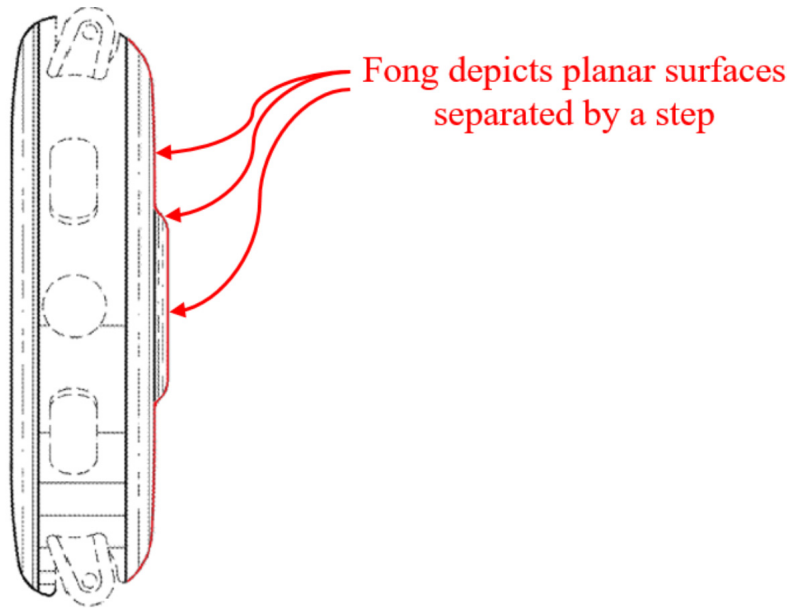


FIG. 6

EX2001, ¶133 (Pet., 100 (citing EX1008, FIG. 6)(annotated)).

This difference is not insignificant—the planar surfaces separated by a step extend over the majority of the rear face of Fong’s device and provide a markedly different impression than the domed appearance that results from the claimed design’s profile. EX2001, ¶134. The Petition ignores it, merely asserting that “any differences between Fong and the claimed design do not prevent Fong’s use as a primary reference.” Pet., 101.

The Petition notes that Fong lacks the beveled edge of the claimed design, but never offers any reason that Fong’s appearance is basically the same as the claimed design despite this prominently visible difference. Indeed, Fong’s curved perimeter edge is not an isolated difference, but contributes to the stepped profile

and complements the step to the central planar surface in proportion and shape.

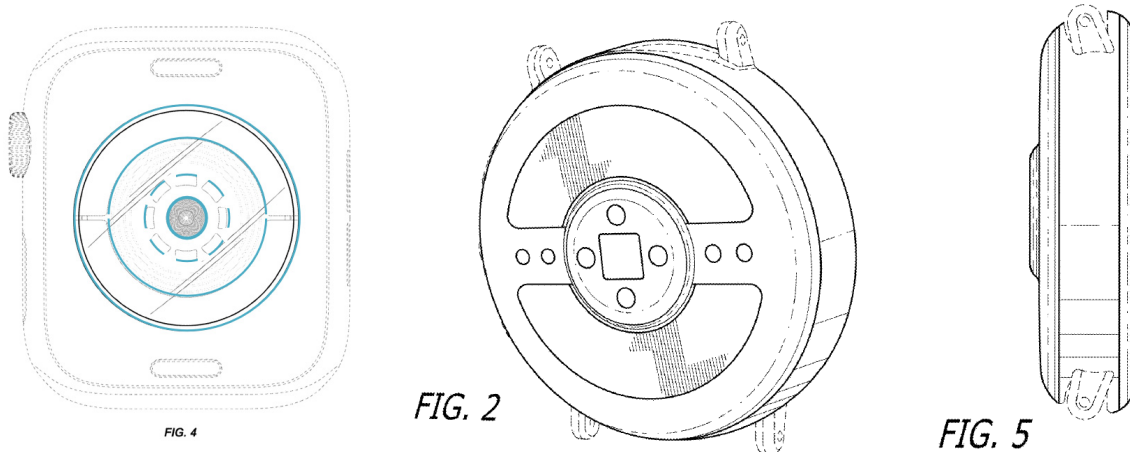
EX2001, ¶135.

Ultimately, Masimo's conclusory assertions—unsupported by any explanation or evidence that Fong's appearance is basically the same despite these prominent differences—here again demonstrate the Petition is insufficient to satisfy Masimo's burden.

d) Masimo Fails to Properly Analyze the Outermost Continuous Circle and Its Relationship with the Arches and Other Features of the Claimed Design in Comparison to Fong

The Petition fails to address the outermost continuous circle in its comparison to Fong, never identifying such a feature in Fong at all. Likewise, the Petition does not address Fong's different overall appearance that lacks the series of continuous and concentric circles of decreasing size, suggesting a target or bulls-eye provided by the '279 patent.

Fong's design includes opposed shapes surrounding a raised circular central portion, and lacks any continuous outer circle proximate Fong's opposed shapes.

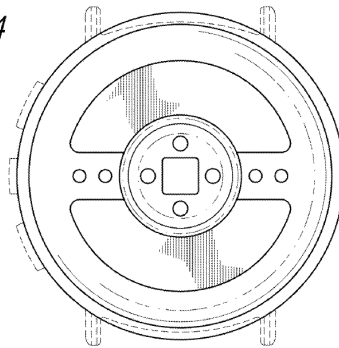


EX2001, ¶¶136-138 (EX1001, Fig. 4 (annotated)); EX1008, Figs. 2 and 5.

The lack of outermost continuous circle in Fong’s design is not trivial or *de minimis*—it goes to a fundamental aspect of Fong in which top and bottom portions are divided by a central portion that includes a row of small circles and a central square that extend across the device’s back. EX2001, ¶¶139-140. Unlike the claimed design, Fong’s opposed features are visibly separated and not encompassed by a closely-proximate outermost continuous circle. *Id.*

Additionally, the Petition ignores the claimed design’s position of the outermost continuous circle relative to the inner edge of the arches and to the outer edge of the four-sided shapes. In contrast, Fong’s opposed shapes have a much thicker appearance, and Fong altogether lacks an outermost continuous circle in close proximity to the opposed shapes. EX2001, ¶140

FIG. 4



EX1008, Fig. 4.

While Masimo compares the outer perimeter “curved edge” of Fong with the beveled edge of the claimed design (Pet., 100), Masimo never addresses that Fong’s “curved edge” is spaced significantly away from Fong’s opposed shapes, unlike the close proximity of the claimed design that contributes to its elegant, and streamlined concentric circle appearance. EX2001, ¶¶140-144.

Additionally, Fong’s opposed shapes (inner edges in blue, below) are spaced significantly inwardly from the line included in Fig. 4 (yellow, below), here again conveying a different overall appearance that lacks the claimed design’s streamlined, well-proportioned appearance.

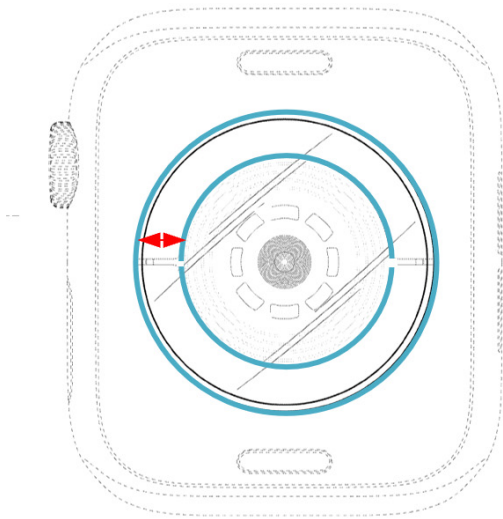
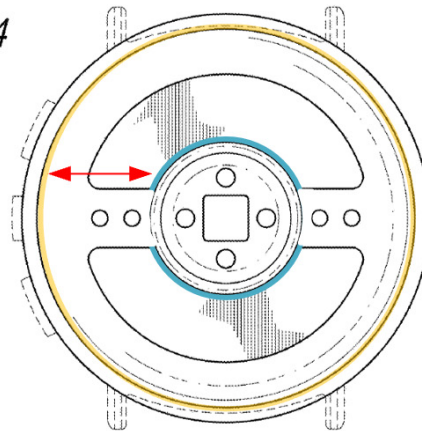


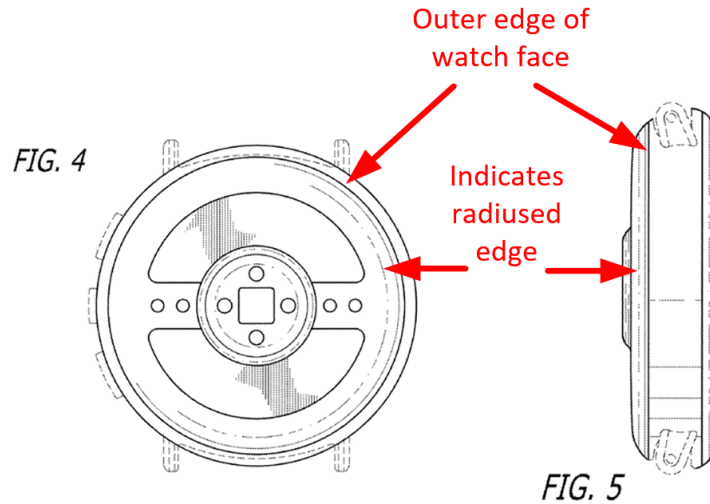
FIG. 4

FIG. 4



EX2001, ¶143 (Left: EX1001, Fig. 4 (annotated); Right: EX1008, Fig. 4 (annotated)).

To the extent Masimo relies on the circle delineating the watch's back face in Fig. 4 (which the Petition never mentions), Fong's Fig. 2 makes clear that this line is included merely to show the edges of the curved rear watch surface. EX2001, ¶¶141-142.



EX2001, ¶¶141-142 (EX1008, Figs. 4 and 5 (annotated)).

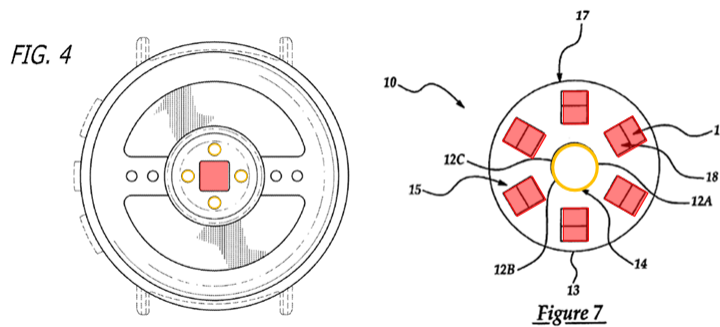
Because the Petition has failed to provide explanation that accounts for these visible differences, Masimo has not demonstrated that Fong is a proper primary reference. *See, e.g., High Point Design*, 730 F.3d at 1314; *Harvey*, 12 F.3d at 1063.

2. Masimo Fails to Demonstrate that it Would Have Been Obvious to a DOSA To Modify Fong in View of Mendelson, Bushnell, and Chung To Create the Claimed Design

a) Mendelson and Chung are Not Proper Secondary References for Combination with Fong

Masimo asserts that “Mendelson and Chung are so related to Fong because they disclose suitable sensors for Fong’s design.” Pet., 106. Masimo’s theory is based on legal error by improperly focusing on Mendelson’s and Chung’s use as a sensor rather than visual appearances of the designs, which have little in common and many readily apparent differences. *Termax*, IPR2022-00106, Paper 7 at 29.

In contrast to Mendelson's arrangement of rectangle pairs about a central circle and Chung's arrangement of four rectangles around curved shapes, Fong includes a central square element with four circles arranged along the square's straight sides. Mendelson and Chung also lack any relationship between its pairs of rectangles and surrounding opposed arch shapes, which are not present in Mendelson and Chung. EX2001, ¶¶145-146.

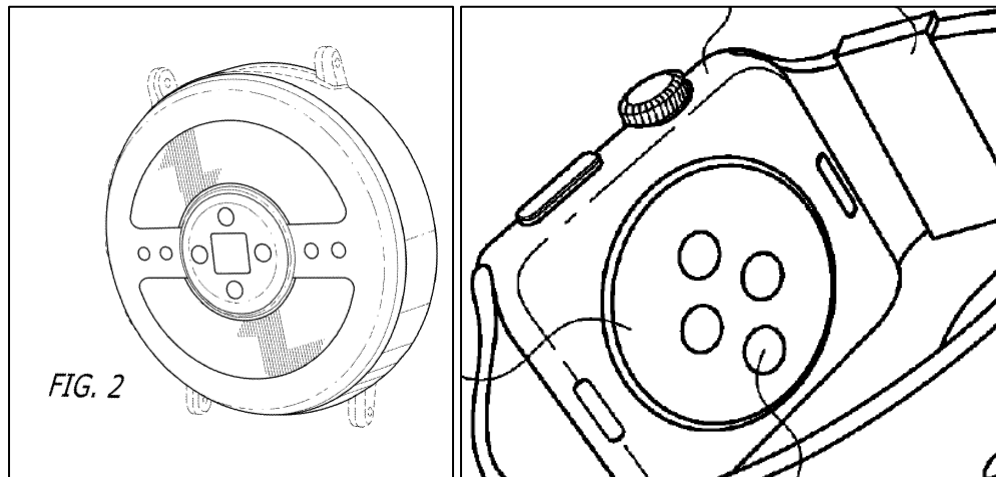


EX2001, ¶145 (EX1008, Fig. 4 (annotated); EX1011, Fig. 11 (annotated)).

The Petition never specifically addresses these differences, and fails to satisfy its burden of demonstrating these references are so related in appearance despite these differences. *Glavas*, 230 F.2d at 450.

b) Masimo's Proposed Combination of Bushnell with Fong is Improper

Masimo's proposed combination of Bushnell's "convex housing" with Fong results in a fundamental change contrary to Fong's original design. Fong includes a protruding central circle that is on a different plane compared to the pair of opposed shapes above and below the central protruding circle.



Left: EX1008, Fig. 2; Right: EX1009, Fig. 1A (excerpted).

Petitioner ignores that its proposal would eliminate Fong’s arrangement in favor of a different arrangement that would cause the opposed shapes to protrude outwardly, and the inner circle to instead be recessed. *See, e.g.,* Pet., 112 (showing Petitioner’s proposed combined design). EX2001, ¶¶147-148.

Tellingly, while Masimo points to Fong’s central “circular surface protruding from the back of the device” as providing similarity that supports combination with Bushnell’s protruding surface, Masimo’s combination deviates from these features to instead place Fong’s opposed shapes on the protruding surface. EX2001, ¶149. Nothing in Bushnell depicts such shapes on its protruding surface, and the Petition is entirely silent as to its departure from Fong’s design and the central protruding surface that is the basis of Masimo’s proposed combination with Bushnell. Instead, the only depiction of such a feature in the record is in the ’279 patent itself, highlighting the Petition’s reliance on impermissible hindsight to reconstruct the

claimed design from disparate elements. *Premier Gem*, IPR2016-00434, Paper 9 at 16; *L.A. Gear*, 988 F.2d at 1124

c) Masimo’s Proposed Series of Modifications Beyond the Designs Depicted in Mendelson and Bushnell are Improper

Masimo acknowledges that multiple additional modifications are necessary to provide features of the claimed design beyond that depicted by Fong/Mendelson/Bushnell/Chung, here again tacitly acknowledging that modifying Fong based on these references fails to achieve the claimed design. Pet., 110-111 (modify Mendelson to use “one array” of photodiodes instead of pairs, and to have “curved rectangles”); 111. These additional modifications are directed to features that are not depicted by either reference and are not trivial or *de minimis*. EX2001, ¶150-151.

The deficiencies discussed above are not remedied by Masimo’s improper reliance on motivations based on purported functionality of various features rather than the actual design appearances. The alleged motivation of replacing Fong’s purported PPG sensor (which is not disclosed or even mentioned in Fong) with a different sensor does not provide motivation for incorporating photodiodes having the particular ornamental appearance the Petition proposes. *Termax*, IPR2022-00106, Paper 7 at 29 (rejecting Petitioner’s reliance on aspects other than ornamental appearance). Masimo’s reliance on additional functional alleged improvements

achieved by the combination of Fong with Mendelson, Bushnell, and Chung are improper. For example, Masimo's assertions that the combination would have been motivated by "improving Fong's PPG sensor accuracy" and that Fong, Mendelson, and Chung's "PPG sensors include the same basic components" improperly rely on use/utility rather than the appearance of Fong, Mendelson, Bushnell, and Chung. Pet., 107; 110.

For reasons similar to those discussed above in Grounds 1 and 2, Masimo's additional modifications to alter the number, shape, and edges of Mendelson's rectangular photodiodes beyond what is depicted in Fong, Mendelson, Bushnell, and Chung is improper. *See supra* §IV.C.2.b and IV.D.2.c; *see also Harvey*, 12 F.3d at 1065.

V. CONCLUSION

Patent Owner requests that the Board deny institution.

Respectfully submitted,

Date: July 12, 2023

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CERTIFICATION UNDER 37 CFR § 42.24(d)

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner's Preliminary Response totals 13,984, which is less than the 14,000 allowed under 37 CFR § 42.24(b)(1).

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e)(4), the undersigned certifies that on July 12, 2023, a complete and entire copy of this Patent Owner's Preliminary Response and its supporting exhibits were provided via email, to the Petitioner by serving the email correspondence addresses of record as follows:

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