

No. 2022-1890

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

APPLE INC.,

Appellant,

v.

MASIMO CORPORATION,

Appellee.

Appeal from the United States Patent and Trademark Office
Patent Trial and Appeal Board in No. IPR2020-01523

**APPELLANT APPLE INC.'S COMBINED PETITION FOR PANEL
REHEARING AND REHEARING EN BANC**

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February 12, 2024

CERTIFICATE OF INTEREST

Counsel for Appellant Apple Inc. certifies the following:

1. Represented Entities. Fed. Cir. R. 47.4(a)(1). Provide the full names of all entities represented by undersigned counsel in this case.

Apple Inc.

2. Real Party in Interest. Fed. Cir. R. 47.4(a)(2). Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities.

Apple Inc.

3. Parent Corporations and Stockholders. Fed. Cir. R. 47.4(a)(3). Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities.

None.

4. Legal Representatives. List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

FISH & RICHARDSON P.C.: Daniel D. Smith and Kim H. Leung

5. Related Cases. Other than the originating case(s) for this case, are there related or prior cases that meet the criteria under Fed. Cir. R. 47.5(a)?

Yes (file separate notice; see below) No N/A (amicus/movant)

If yes, concurrently file a separate Notice of Related Case Information that complies with Fed. Cir. R. 47.5(b). Please do not duplicate information. This separate Notice must only be filed with the first Certificate of Interest or, subsequently, if information changes during the pendency of the appeal. Fed. Cir. R. 47.5(b).

6. Organizational Victims and Bankruptcy Cases. Provide any information required under Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees). Fed. Cir. R. 47.4(a)(6).

None.

Dated: February 12, 2024

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STATEMENT OF COUNSEL

Based on my professional judgment, I believe that the panel decision is contrary to the following decision(s) of the Supreme Court of the United States or the precedent(s) of this court: *Merrill v. Yeomans*, 94 U.S. 568 (1876); *White v. Dunbar*, 119 U.S. 47 (1886); *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc); *Thorner v. Sony Computer Entertainment America LLC*, 669 F.3d 1362 (Fed. Cir. 2012); *Hill-Rom Services, Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014); *Malvern Panalytical Inc. v. TA Instruments-Waters LLC*, 85 F.4th 1365, 1372 (Fed. Cir. 2023).

Based on my professional judgment, I believe this appeal requires answers to the following precedent-setting question of exceptional importance:

1. Whether a patent limitation should be given its plain and ordinary meaning, when (a) the alternative, narrower construction adopted by the lower tribunal renders claim language superfluous and (b) the specification mentions the term only once—in the context of a preferred embodiment—and instructs that the embodiments are examples that “are not to limit the scope of the claims.”

/s/ Thomas G. Sprankling

THOMAS G. SPRANKLING

POINTS OVERLOOKED OR MISAPPREHENDED BY THE PANEL

(1) The term “processing characteristics” does not appear “[t]hroughout the specification.” Op. 7.¹

(2) The claims do not use the term “‘processing characteristics’ [to] refer[] to the processing of ‘one or more signals from one or more detectors configured to detect light’ attenuated by the tissue.” Op. 7.

(3) Dependent claim 4 does not contain “additional limitations” that “further define and restrict ‘processing characteristics’” to “a subset of the resulting downstream data.” Op. 7-8.

(4) Nothing in the invention limits the type of signals that can be “received and processed in the claimed ... invention” to signals from a light detector. Op. 7.

(5) That the plain and ordinary meaning of a term sweeps more broadly than the patent’s preferred embodiment is insufficient—standing alone—to reject a proposed claim construction. *Compare* Op. 7-8 with, e.g., *Hill-Rom*, 755 F.3d at 1372.

/s/ Thomas G. Sprankling
THOMAS G. SPRANKLING

¹ Emphasis added unless noted.

INTRODUCTION

How should a claim term be interpreted when it uses two ordinary words (“processing characteristics”) and the specification mentions the term just once, in a non-definitional way and when describing a preferred embodiment? Under this Court’s precedent, the broad language in the claim should have been given its plain and ordinary meaning—here, characteristics or features obtained from or used for processing information. After all, while “[t]here are no magic words that must be used,” “the patentee must, with some language, indicate a clear intent” to “deviate from the plain and ordinary meaning of a claim term.” *E.g., Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1373 (Fed. Cir. 2014). This rule is rooted in the longstanding patent law principle that “[t]he public should not be deprived of rights supposed to belong to it, without being clearly told [by the patentee] what it is that limits these rights.” *Merrill v. Yeomans*, 94 U.S. 568, 573-574 (1876).

The Patent Trial and Appeal Board departed from these principles by narrowly interpreting “processing characteristics” to comprise only “characteristics ... determined from a signal received from one or more detectors configured to detect light.” Appx14. Here, all relevant tools of claim construction—the presumptions against superfluity and of claim differentiation, as well as the prohibition on confining the claims to the scope of a preferred embodiment—point away from the Board’s narrowing construction of U.S. Patent No. 8,457,703 and in

favor of Apple’s. To the extent the panel’s root concern was that Apple proposed too expansive a construction, *see* Op. 7-8, the panel misapprehended this Court’s decade-old precedent holding that “the broad language of [a] claim support[s] a broad construction of the claim term,” *Malvern Panalytical Inc. v. TA Instruments-Waters LLC*, 85 F.4th 1365, 1372 (Fed. Cir. 2023) (summarizing *Hill-Rom*’s holding).

If the panel declines to reconsider its ruling, Apple respectfully submits *en banc* rehearing is warranted. This case goes against the great weight of binding precedent by affirming a claim construction that (1) is narrower than the plain and ordinary meaning of the term and (2) has no clear support in the claims, the specification, or the prosecution history. The panel’s decision cites no case law in support of its approach. To the extent the decision relies on the “context” of the invention, Op. 8, the only material it identifies is the specification’s preferred embodiment section. *Phillips* itself holds the claims should not be “confined” to the patent’s embodiments—particularly where, as here, the specification is crystal clear that the embodiments are non-limiting examples. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323-1324 (Fed. Cir. 2005) (*en banc*).

At a minimum, the panel’s ruling conflicts with a long line of this Court’s cases (e.g., *Thorner*, *Hill-Rom*, and *Malvern*) requiring the patentee to use clear lexicography or a disclaimer before a term’s scope will deviate from its plain and

ordinary meaning. As the Supreme Court explained nearly 140 years ago, the burden is on the patentee to “define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.” *White v. Dunbar*, 119 U.S. 47, 51-52 (1886). The inventor failed to provide such a finely grained definition here and the panel’s decision should accordingly be set aside.

BACKGROUND

A. The ’703 Patent

The ’703 patent describes a “pulse oximeter,” a device used to facilitate a “widely accepted noninvasive procedure for measuring the oxygen saturation level of a person’s arterial blood, an indicator of their oxygen supply.” Appx54(1:18-35). Specifically, the patent describes a “low power” pulse oximeter, which uses minimal power when in its normal state and increases power consumption when certain “processing characteristics” pass a predetermined threshold. Appx54(2:29-37); Appx59-60(11:31-14:27). The specification acknowledges low-power pulse oximeters existed before the invention, but posits the “conventional approach for reducing power consumption ... is to have a ‘sleep mode’ where the circuitry is powered-down when the devices are idle.” Appx54(1:55-67).

The Board (and the panel) concluded claim 1 was representative. Appx6; Op. 2-3. Claim 1 provides:

1. A method of managing power consumption during continuous patient monitoring by adjusting behavior of a patient monitor, the method comprising:

driving one or more light sources configured to emit light into tissue of a monitored patient;

receiving one or more signals from one or more detectors configured to detect said light after attenuation by said tissue;

continuously operating a patient monitor at a lower power consumption level to determine measurement values for one or more physiological parameters of a patient;

comparing *processing characteristics* to a predetermined threshold; and

when said *processing characteristics* pass said threshold, transitioning to continuously operating said patient monitor at a higher power consumption level,

wherein said continuously operating at said lower power consumption level comprises reducing activation of an attached sensor,

said sensor positioning said light sources and said detectors proximate said tissue.

Appx59 (11:33-51).

The '703 patent's specification contains scant information about what the invention requires. The vast majority of it merely describes potential embodiments, with columns 5-11 devoted to a "Detailed Description of the Preferred Embodiment." *See* Appx55-59.

Under a preferred embodiment, a pulse oximeter uses a signal processor that monitors “physiological measurements” (e.g., oxygen saturation) and “signal statistics” (e.g., signal strength) to determine when to increase the device’s power consumption from its default, low-power state. *E.g.*, Appx56(5:11-27). The physiological information comes from “an external sensor,” an example of which is a light detector. *See* Appx56(5:1-2) (“The sensor port 302 connects to an external sensor, *e.g.*, sensor 110 (FIG. 1)”); *see also* Appx43 (Figure 1, which includes a sensor with “LED emitters” and a “photodiode detector”). Although this embodiment does not describe using other types of sensors, it also does not preclude using other types of sensors, which were undisputedly known in the art²

The specification concludes by emphasizing the invention is broader than the specific embodiments it describes. Rather, “[t]hese embodiments are disclosed by way of examples only and are not to limit the scope of the claims that follow.” Appx59(11:26-28).

B. “Processing Characteristics”

As the Board found, “the term ‘processing characteristics’ is one that is required by all of the challenged claims.” Appx9. Despite the term’s importance to the invention, it is mentioned only once in the specification. Specifically, the

² For example, the Amano prior art reference describes detecting body movement using an acceleration sensor and suspending processing when no movement is present. *See* Apple Br. 7-8; Appx20-22.

specification’s description of the preferred embodiment discussed above references “causing the signal processor 340 to vary its sample processing characteristics, as described in further detail with respect to FIG. 4, below.” Appx56(5:20-23).

Masimo has not argued that this sole reference to “processing characteristics” rises to the level of lexicography or disavowal. *E.g.*, Masimo Br. 53 (contending the Board “was not required to address lexicography or disavowal”). The panel’s decision, too, acknowledges that the specification “does not state the term in explicit definitional format.” Op. 7.

C. Agency Proceedings

Before the Board, Apple argued “processing characteristics” should be given its plain and ordinary meaning—i.e., “characteristics or features obtained from or used for processing information.” Appx9 (Board decision); Apple Reply Br. 5-6.³ In response, Masimo pressed its own view of the “plain and ordinary meaning” of the term, which it contended was “characteristics ... determined from a signal received from one or more detectors configured to detect light.” Appx10, Appx1289.

³ Apple also noted that it would prevail even if the Board adopted a narrower, more limited interpretation similar to Masimo’s later proposed construction—i.e., requiring “‘processing characteristics’ to be obtained from a signal provided by a photodetector.” Appx118.

Masimo made two basic arguments in support of this position. First, it asserted “processing characteristics” should be understood as synonymous with a different claim limitation that appears earlier in each challenged claim (i.e., “signal[s] are received from one or more detectors that are configured to detect ... light”) because the light signals were the only input expressly identified in the claims. *See* Appx10-11. Masimo did not explain why the patentee would have used two terms to convey an identical concept. Second, Masimo argued (in the Board’s words) that “throughout the Specification the characteristics that are described and shown as being processed are those conveyed via signals from light detectors.” Appx11 (citing Appx56(5:28-30, 5:35-38, 5:40-41, 5:46-48)). Neither the Board nor Masimo acknowledged the cited passages of the specification described only a single preferred embodiment.

Based on these two arguments, the Board adopted Masimo’s proposed construction. The Board relied on its construction of “processing characteristics” to reject Apple’s arguments that claims 1-5, 9, 10, 12-17, 20, and 22-24 of the ’703 patent were unpatentable. Appx35-36.⁴

⁴ It is unclear whether the Board’s inclusion of claims 4-5 was intentional, as they dealt with a different, broader combination of references than the rest. Appx8. Still, since the term “processing characteristics” appears in all claims and claims 4-5 implicate the same key Amano reference as the others, Apple respectfully submits the Board’s ruling on those claims should be vacated as well.

D. Federal Circuit Proceedings

The Board’s erroneous claim construction was the focus of the appeal briefing. *See* Apple Br. 14-32; Masimo Br. 32-54; Apple Reply 2-14. The issue also dominated oral argument. Most notably, Masimo’s counsel was asked how his client’s position could be squared with *Thorner v. Sony Computer Entertainment America LLC*, 669 F.3d 1362 (Fed. Cir. 2012), and its progeny:

JUDGE PROST: “We have a line of cases ... the *Thorner* line of cases that say if there is just some plain and ordinary meaning you need clear and explicit disavowal or some sort of lexicography in order to limit the broad meaning of the claim.”

MASIMO COUNSEL: “Correct.”

JUDGE PROST: “*Phillips* does not change that.”

MASIMO COUNSEL: “Correct.”

Oral Arg. 17:30-18:00. Masimo’s counsel’s response to this case law was that—contrary to Masimo’s position before the Board—*Thorner* did not control because “processing characteristics” is a “technical term” that lacks “a plain meaning.” *Id.* 18:15-40.

The panel’s decision adopted the Board’s reasoning, devoting five substantive sentences to explaining why “the claim language and the specification support the Board’s claim construction.” Op. 7-8. The panel did not adopt Masimo’s suggestion (first raised at oral argument) that “processing characteristics” has no plain and ordinary meaning.

REASONS FOR GRANTING THE PETITION

I. PANEL REHEARING IS APPROPRIATE BECAUSE THE DECISION APPEARS TO HAVE MISAPPREHENDED THE SCOPE OF THE '703 PATENT

The panel's brief substantive analysis rests on factual and legal errors. Apple respectfully submits that when the '703 patent is properly understood, this Court's case law requires rejecting the Board's narrow construction.

A. Use Of "Processing Characteristics" In Representative Claim 1

The decision is incorrect that, "[i]n the claim language, 'processing characteristics' *refers to* the processing of 'one or more signals from one or more detectors configured to detect' light attenuated by the tissue." Op. 7. The claims do not draw any express or implied connection between the term "processing characteristics" and "one or more signals." To the contrary, "processing characteristics" appears four lines *after* the "one or more signals" language and in a different paragraph of the claim. Appx59(11:37-39, 43); *supra* p.6. Under this Court's case law, "the use of two [different] terms in a claim requires that they connote different *meanings*["]” *Applied Med. Res. Corp. v. United States Surgical Corp.*, 448 F.3d 1324, 1333 n.3 (Fed. Cir. 2006) (emphasis in original); *accord Primos, Inc. v. Hunter's Specialities, Inc.*, 451 F.3d 841, 847-848 (Fed. Cir. 2006) (“[T]he terms ‘engaging’ and ‘sealing’ are both expressly recited in the claim and therefore ‘engaging’ cannot mean the same thing as ‘sealing.’”). Put differently, the inventor's use of the “one or more signals” language earlier in the claim shows

the inventor “knew how to” use restrictive language, but still chose to use the broader “processing characteristics” term. *Intellectual Ventures I LLC v. T-Mobile USA, Inc.*, 902 F.3d 1372, 1379 (Fed. Cir. 2018).

B. Use Of “Processing Characteristics” In Dependent Claim 4

The decision is incorrect that dependent claim 4 “further define[s] and restrict[s] ‘processing characteristics.’” Op. 7-8. The Board’s narrow definition of the term renders the dependent language wholly superfluous; both claim 4 and the Board’s construction describe (1) characteristics from signals and (2) one or more light detectors. *Compare* Appx59 (“The method of claim 1, wherein said processing characteristics comprise [1] signal characteristics [2] from one or more light sensitive detectors”) *with* Appx14 (“[1] characteristics ... determined from a signal [2] received from one or more detectors configured to detect light.”). The duplication is even more apparent when the Board’s construction is inserted directly into the claim.

4. The method of claim 1, wherein said ~~processing characteristics~~ processing characteristics determined from a signal received from one or more detectors configured to detect light comprise signal characteristics from one or more light sensitive detectors.

Apple Br. 17.

“[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the

independent claim.” *Phillips*, 415 F.3d at 1315. That presumption weighs strongly against the Board’s construction.

C. Use Of “Processing Characteristics” In The Specification

The decision is incorrect that “processing characteristics” is used “[t]hroughout the specification.” Op. 7. The term appears only once and in the context of a preferred embodiment. *See supra* pp.7-8. *Phillips* itself “warn[s] against confining the claims to” the scope of the embodiments, as “[S]ection 112 of the Patent Act requires that the claims themselves set forth the limits of the patent.” 415 F.3d at 1323. This Court’s subsequent decisions have echoed that caution. *E.g., Littelfuse, Inc. v. Mersen USA EP Corp.*, 29 F.4th 1376, 1381 (Fed. Cir. 2022) (“[C]ourts ordinarily should not limit ‘the claimed invention to preferred embodiments or specific examples in the specification.’”).

D. Sensor Inputs Described In The Claims And Specification

The decision is incorrect that light signals are “the only signals received and processed in the claimed patient-monitoring invention.” Op. 7. Nothing in the claims at issue states light signals are necessarily what is “processed”—if anything, the fact that the representative claim specifically references light detectors in one paragraph and “processing characteristics” in the next suggests the latter term is broader and not limited to the former. *See supra* pp.11-12. And, as discussed above, the specification uses a light detector as an *example* of the kind of sensor

that could be used; the prior art reveals other options, such as an acceleration sensor, are possible. *See supra* p.7 & n.2. Regardless, even if all embodiments described in the specification relied on light detectors, this Court has “repeatedly held that it is ‘not enough that ... all of the embodiments[] contain a particular limitation’ to limit claims beyond their plain meaning.” *Unwired Planet, LLC v. Apple Inc.*, 829 F.3d 1353, 1359 (Fed. Cir. 2016); *accord Hill-Rom*, 755 F.3d at 1373 (specification did not narrow claim term “datalink,” where term was used to “describ[e] a particular numbered component in the figure depicting the preferred embodiment” but “never in describing the datalink of the invention generally”).

E. The Breadth Of The Plain and Ordinary Meaning

The decision discounts Apple’s proposed construction for being too broad. Op. 7-8. To the extent the panel’s reasoning rested on its misapprehension of the “processing characteristics” described in specification and claims, *see supra* pp.11-13, it should be set aside. But if the decision rested solely on the breadth of Apple’s interpretation, the panel misapprehended the rule outlined in cases like *Hill-Rom* and *Thorner*—i.e., the patentee’s decision to use broad language merits a broad construction. *Hill-Rom*, 755 F.3d at 1375; *Thorner*, 669 F.3d at 1367.

It is hardly uncommon for this Court to give normal English words and phrases their plain and ordinary meaning without relying on an artificially narrow interpretation or looking beyond the claims themselves. *Hill-Rom*, for example,

construed the “datalink” to mean a “link that carries data” and rejected the suggestion that the term should be limited to a “datalink to a cable.” 755 F.3d at 1371-1373. As a more recent example from last November, *Malvern* construed “pipette guiding mechanism” to mean “a mechanism that guides the pipette assembly.” 85 F.4th at 1372. Apple’s construction of “processing characteristics” as “characteristics or features obtained from or used for processing information” follows this precedent precisely.⁵

II. EN BANC REHEARING IS APPROPRIATE TO THE EXTENT THE PANEL ADOPTED A NEW CLAIM CONSTRUCTION TEST BASED SOLELY ON THE ’703 PATENT’S PREFERRED EMBODIMENTS, WHICH MENTION “PROCESSING CHARACTERISTICS” ONLY ONCE

A. The Panel’s Decision Cannot Be Squared With *Phillips* And Its Progeny

To the extent the panel affirmed the Board’s claim construction with a clear understanding of the ’703 patent’s scope, its decision merits *en banc* review. This Court’s jurisprudence features a longstanding divide over whether to either (1) “construe patents’ claims to capture an invention’s scope” or (2) rely on “the claims themselves [to] define an invention’s boundaries” unless “the patentee has offered his own definitions” in the specification or prosecution history. *University*

⁵ Apple’s proposed construction is not boundless. It would, e.g., exclude information about battery level, since that describes how the device was used in the past rather than the kind of contemporaneous processing contemplated by the claims. *See* Oral Arg. 4:40-5:00.

of Fla. Research Found., Inc. v. General Elec. Co., 2017 WL 5502940, at *2 (N.D. Fla. Nov. 16, 2017); accord Liivak, *The Unresolved Interpretive Ambiguity of Patent Claims*, 49 U.C. Davis L. Rev. 1851, 1859 (2016).

Importantly, however, the panel’s construction cannot stand under either a test focused on the language of the claims *or* a test focused on the invention as described in the specification. On the one hand, the language of claim 1 and dependent claim 4 points in favor of a broad construction of “processing characteristics,” and there is no dispute the specification lacks an express or implicit definition of the term. *See supra* pp.11-13. On the other, the specification is entirely silent about the meaning of “processing characteristics” except for a fleeting reference as part of a preferred embodiment. *See supra* p.13. Moreover (and crucially), the specification states expressly the invention is *not* limited to the scope of the embodiments. *See supra* p.7. If the *en banc* Court’s decision in *Phillips* teaches nothing else, it is that when, as here, the specification is “clear [that] the patentee is setting out specific examples of the invention” to teach and enable—rather than “for the claims and the embodiments in the specification to be strictly co-extensive”—the embodiments should *not* be read into the claims. 415 F.3d at 1323. Any other rule would be impossible to square with century-old Supreme Court case law requiring inventors to speak clearly about what they are claiming. *See supra* pp.3, 5.

The panel’s decision does not identify a single prior case that has relied on preferred embodiments to define the scope of a claim term when those embodiments mention the claim term only once and in a non-definitional manner. Masimo was also unable to identify any precedent justifying the significant shift in approach that the panel’s decision represents. Its briefing primarily pointed to this Court’s decisions in three cases: (1) *Kinetic Concepts, Inc. v. Blue Sky Medical Group, Inc.*, 554 F.3d 1010 (Fed. Cir. 2009), (2) *Medicines Co. v. Mylan, Inc.*, 853 F.3d 1296 (Fed. Cir. 2017), and (3) *Retractable Technologies, Inc. v. Becton, Dickinson, & Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011). But the specifications at issue in those decisions are so different from this case that they serve only to underscore the error here:

- In *Kinetic*, the specification used the term “wound” a dozen times, allowing the panel to discern a clear pattern in how the inventor intended the term to be understood. 554 F.3d at 1018. Here, the specification uses the claim term only once and not in a way that any similar inferences could be drawn. *See supra* pp.13-14.
- In *Medicines*, the Court construed a term that did not appear in the claims at all (“efficient mixing”) and that one of the embodiments expressly defined. 853 F.3d at 1303-1310. Here, the decision

acknowledges the specification does not use “processing characteristics” in a definitional sense. Op. 7.

- Finally, in *Retractable*, the specification “expressly” resolved the question of whether the term “body” must be a one-piece structure. 653 F.3d at 1305 (noting that specification “*expressly* recite[s] that the invention has a body constructed as a single structure [and] *expressly* distinguish[es] the invention from the prior art based on this feature”). Here, the decision recognizes the ’703 patent does not “state the term in *explicit* definitional format.” Op. 7.

In light of the panel decision’s divergence from nearly twenty years of post-*Phillips* case law, *en banc* review is necessary to “secur[e] or maintain[] uniformity of decisions” and resolve a “question of exceptional importance” regarding the frequently recurring question of how to construe claim terms. Fed. Cir. IOP No. 13.

B. At A Minimum, The Panel’s Decision Conflicts With The *Thornton/Hill-Rom/Malvern* Clear Statement Rule

The panel’s decision also cannot be squared with the clear statement rule outlined in cases like *Thorner*, *Hill-Rom*, and *Malvern*—i.e., that claim language must be given its plain and ordinary meaning absent implicit or explicit lexicography or disclaimer.

Masimo’s counsel did not dispute that *Thorner* is good law when pressed at oral argument, *see supra* p.10, and Masimo’s brief did not identify anything that implicitly or explicitly purported to redefine or narrow “processing characteristics,” *see* Apple Reply 13.⁶ Instead, Masimo took the position that the Board’s construction “naturally aligns” with the patent’s written description. *See, e.g.,* Masimo Br. 32. But a proposed construction must stay true to broad claim language. As *Thorner* explains, “[t]he patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee ... redefines the term or disavows its full scope.” 669 F.3d at 1367. This Court does not “read limitations ... into claims; we do not redefine words.” *Id.* at 1366. In adopting the Board’s construction, however, that is exactly what the panel has done.

CONCLUSION

The petition for rehearing should be granted.

⁶ If Masimo’s counsel intended to suggest at oral argument that *Thorner* does not apply when a term does not have a plain and ordinary meaning (i.e., that it is a “coined term”), Masimo forfeited that argument when it argued to the Patent Office that “processing characteristics” does possess such a meaning. *See supra* p.8.

Respectfully submitted,

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ADDENDUM

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

APPLE INC.,
Appellant

v.

MASIMO CORPORATION,
Appellee

2022-1890

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2020-01523.

Decided: January 12, 2024

THOMAS GREGORY SPRANKLING, Wilmer Cutler Pickering Hale and Dorr LLP, Palo Alto, CA, argued for appellant. Also represented by MICHAEL JOHN BALLANCO, LAUREN ANN DEGNAN, CHRISTOPHER DRYER, WALTER KARL RENNERT, Fish & Richardson P.C., Washington, DC.

STEPHEN C. JENSEN, Knobbe, Martens, Olson & Bear, LLP, Irvine, CA, argued for appellee. Also represented by JAROM D. KESLER, JOSEPH R. RE, JOSHUA STOWELL.

Before LOURIE, PROST, and REYNA, *Circuit Judges*.

REYNA, *Circuit Judge*.

Apple Inc. appeals a final written decision of the United States Patent and Trademark Office Patent Trial and Appeal Board, which determined that claims 1–7, 9–18, and 20–24 of U.S. Patent No. 8,457,703 were not unpatentable as obvious. We affirm.

BACKGROUND

A. U.S. Patent No. 8,457,703

Masimo Corporation (“Masimo”) is the assignee of U.S. Patent No. 8,457,703 (“703 patent”), which relates to reducing power consumption of a pulse oximeter. ’703 patent, Abstract. The patent discloses regulating power consumption by intermittently changing the number of samples received and processed by the oximeter. *Id.* at 6:9–11. Based on physiological measurements and signal statistics, the oximeter determines whether to increase or decrease sampling. *Id.* at 6:25–39. In one embodiment, the patent discloses controlling sampling by intermittently changing the duty cycle of the current supplied to drive the LEDs that project light onto the patient’s tissue. *Id.* at 5:55–66, 6:56–7:8.

Claim 1 is representative and recites,

1. A method of managing power consumption during continuous patient monitoring by adjusting behavior of a patient monitor, the method comprising:

driving one or more light sources configured to emit light into tissue of a monitored patient;

receiving one or more signals from one or more detectors configured to detect said light after attenuation by said tissue;

continuously operating a patient monitor at a lower power consumption level to determine measurement values for one or more physiological parameters of a patient;

comparing *processing characteristics* to a predetermined threshold; and

when said processing characteristics pass said threshold, transitioning to continuously operating said patient monitor at a higher power consumption level,

wherein said continuously operating at said lower power consumption level comprises reducing activation of an attached sensor,

said sensor positioning said light sources and said detectors proximate said tissue.

Id. at 11:32–51 (emphasis added).

B. Prior Art References

Two references are relevant to this appeal: Diab (U.S. Patent No. 5,632,272) and Amano (U.S. Patent No. 6,293,915).

Diab discloses a pulse oximeter that includes a sensor, a digital signal processing system, and a display. Diab, 34:11–26, Fig. 11. The digital signal processing system provides several outputs to be displayed, including “blood oxygen saturation, heart rate, and a clean plethysmographic waveform.” *Id.* at 34:26–28. Within the digital signal processing system, as shown in Figure 20, heart rate module 410 includes motion artifact suppression module 580. *Id.* at 47:30–38, Fig. 20 (below).

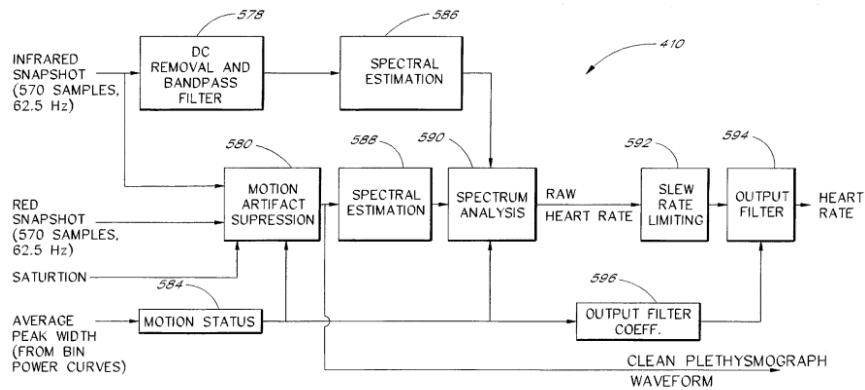
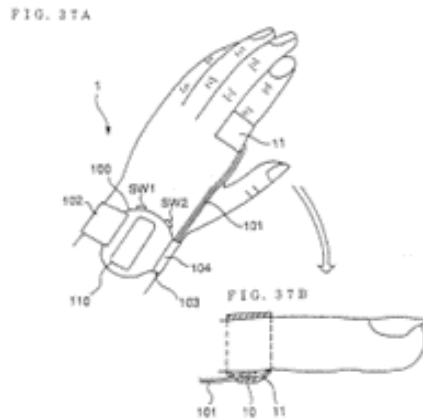


FIG. 20

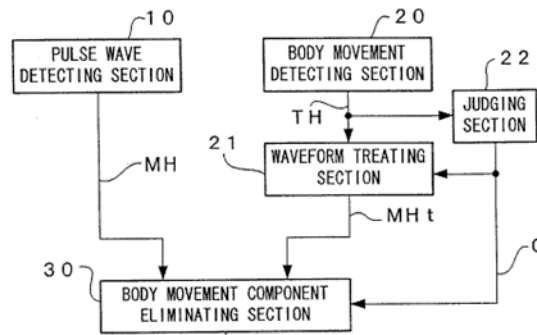
In case of motion, motion artifact suppression module 580 suppresses motion artifacts, namely, artifacts introduced by patient movement that may distort the measured signal. *Id.* at 3:6–9, 47:55–56. “If motion is not detected, spectral estimation on the signals is carried out directly without motion artifact suppression.” *Id.* at 47:52–54.

Amano discloses a wristwatch type of pulse wave detector mounted on a finger. *See* Amano, Figs. 37A and 37B (below).



In the embodiment illustrated in Figure 1, pulse wave detecting section 10 detects a pulse waveform and outputs the detected signal to body movement component eliminating section 30. *Id.* at 21:5–8, Fig. 1 (excerpt below).

FIG. 1



The device also includes body movement detecting section 20 and waveform treating section 21. *Id.* at 21:9–12. If no body movement is present, the operations of waveform treating section 21 and body movement component eliminating section 30 are suspended. *Id.* at 21:65–22:2. According to Amano, this suspension reduces the power consumption of the device. *Id.* at 22:4–6.

C. Procedural History

After Masimo sued Apple Inc. (“Apple”) for infringing the ’703 patent, Apple petitioned for *inter partes* review (“IPR”) of claims 1–7, 9–18, and 20–24 of the ’703 patent.

The Patent Trial and Appeal Board (“Board”) construed the claimed “processing characteristics” as “determined from a signal received from one or more detectors configured to detect light.” J.A. 14. Based on this construction, the Board assessed Apple’s eight obviousness grounds, each of which addressed either or both of Diab and Amano. Ultimately, the Board concluded that Apple failed to show obviousness of the challenged claims.

Apple appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(4)(A).

STANDARD OF REVIEW

Claim construction is a question of law with underlying questions of fact. *Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1278 (Fed. Cir. 2017). We review de novo the Board's ultimate claim construction and its supporting determinations that are based on intrinsic evidence. *Personalized Media Commc'ns, LLC v. Apple Inc.*, 952 F.3d 1336, 1339 (Fed. Cir. 2020). Subsidiary factual findings involving extrinsic evidence are reviewed for substantial evidence. *Id.*

We review the Board's ultimate obviousness determinations on a de novo basis and any underlying factual determinations for substantial evidence. *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). The scope and content of the prior art and whether a person of ordinary skill in the art would have been motivated to combine teachings in the prior art are both questions of fact. *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1378 (Fed. Cir. 2023). Substantial evidence means "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Id.* (citation omitted).

DISCUSSION

Apple challenges the Board's construction of "processing characteristics" as too limiting. Apple also raises two arguments relating to the prior art references. First, Apple contends that the Board failed to address its alternative argument as to Diab's teachings. Second, Apple argues that the Board applied an inherency standard to Apple's obviousness argument based on the combination of Diab and Amano.

A. “Processing Characteristics”

The Board concluded that “in the context of the ’703 patent, ‘processing characteristics’ are determined from a signal received from one or more detectors configured to detect light.” J.A. 14. The Board rejected Apple’s expansive construction interpreting this term to encompass any information that is processed. *Id.* To the Board, such a “sweeping premise” is inconsistent with the ’703 patent. *Id.* We agree with the Board.

Both the claim language and the specification support the Board’s claim construction. In the claim language, “processing characteristics” refers to the processing of “one or more signals from one or more detectors configured to detect” light attenuated by the tissue. *See* ’703 patent, 11:32–51. These signals represent the only signals received and processed in the claimed patient-monitoring invention. Throughout the specification, “processing characteristics” are described as being determined based on the signals received from the light detectors, the sole source of signals that are then processed. *See, e.g., id.* at 5:11–23, 5:40–48, Figs. 3 & 4. Although the specification does not state the term in explicit definitional format, the Board’s reading of the term is consistent with how the invention is described in the specification.

Contrary to Apple’s contention, the additional limitations to “processing characteristics” recited in dependent claims 4 and 8 do not support Apple’s proposed expansive construction. The additional limitations¹ further define

¹ Dependent claim 4 recites that the “processing characteristics comprise signal characteristics from one or more light sensitive detectors.” ’703 patent, 11:59–61. Dependent 8 claim recites that the “processing characteristics include determining an estimate of current power

and restrict “processing characteristics” to a subset of the resulting downstream data generated from processing the received signals. They do not support reading “processing characteristics” to encompass information untethered to the underlying processing of the invention as described in the patent. Apple’s proposed construction improperly takes the term out of context of the patented invention and lacks support. For these reasons, we hold that the Board correctly construed the term “processing characteristics” as “determined from a signal received from one or more detectors configured to detect light.” *See* J.A. 14.

B. Apple’s Partial-Suspension Argument

Apple asserts that the Board failed to grasp its alternative argument that Diab teaches suspending a subset of the operations of its motion artifact suppression module. Appellant Br. 41–45. In Apple’s view, this partial suspension, like its argument based on the suspension of the entire module, would read on the claimed limitation of reducing power consumption. *Id.* at 41–42.

We note that Apple failed to raise the purported partial-suspension argument before the Board. The record demonstrates that Apple raised a singular argument that Diab teaches suspending its motion artifact suppression *module* if there is no motion. Apple did not identify a distinct alternative argument relying on suspending *a subset of components* within that module. In its petition, Apple contended that Diab “teaches not executing the motion artifact suppression module 580” and that it would have been obvious to “suspend and not execute” operations of that module if there is no motion. J.A. 85. Apple’s argument focused on suspending operations of the motion artifact suppression module altogether. The petition made no

consumption and comparing said estimate with a target power consumption.” *Id.* at 12:1–4.

mention of suspending a *subset* of the operations performed by the motion artifact suspension module.

To show that it made the partial-suspension argument before the Board, Apple cites several pages from its petitioner’s reply and certain statements made at the oral hearing. Appellant Br. 44. To the extent Apple raised a new argument in its reply or at the oral hearing, such argument is untimely and improper.² See *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016).

We hold that Apple failed to properly present to the Board the partial-suspension argument it now raises on appeal. See *Netflix, Inc. v. DivX, LLC*, 84 F.4th 1371, 1377–78 (Fed. Cir. 2023). Absent exceptional circumstances, arguments not properly presented before the Board are generally not considered on appeal. *In re Google Tech. Holdings LLC*, 980 F.3d 858, 863 (Fed. Cir. 2020). We find no exceptional circumstances here justifying exercising our discretion to hear Apple’s forfeited argument. See *id.*

C. Motivation to Combine

Apple also contends that the Board improperly applied an inherency standard when evaluating Apple’s motivation-to-combine theory. Apple argues that the Board required it to show that suspending Diab’s motion artifact suppression module based on Amano would “necessarily” or “inherently” reduce power consumption. Appellant

² A review of Apple’s citations to its reply shows that it continued to argue suspending “all the operations of the motion artifact suppression module 580” and that “a POSITA would have found it obvious not to execute operations of [that module].” J.A. 1689–90. The reply did not raise an alternative argument based on suspending a *subset* of the operations. Apple’s reliance on counsel statements at the oral hearing fails for similar reasons.

Br. 56–57. We disagree. Rather than applying an “inherency” standard, the Board addressed Apple’s reasoning for combining Diab and Amano and explained why it found Apple’s arguments unpersuasive.

During the IPR, the Board addressed and found unpersuasive Apple’s proposed reasoning to combine Diab with Amano. J.A. 28–32. The Board explained that although both relate to physiological monitoring, the two references “disclose different processing algorithms that result in different outputs that are not directly applicable to each other.” J.A. 29. Given these differences, the Board found Apple failed to adequately explain why one skilled in the art would have applied Amano’s teaching of suspending certain processing to Diab’s motion artifact suppression module. J.A. 30.

The Board further addressed Apple’s contention that applying Amano’s teaching to Diab’s motion artifact suppression module “would” reduce power consumption in Diab. *Id.* This “supposed power reduction is the foundational reason” Apple advanced for combining the two references. J.A. 31–32. But the Board found that Masimo persuasively showed that Amano’s “power reduction may not occur in Diab’s differently structured and configured system.” J.A. 31. To the Board, even assuming one were to apply Amano’s teachings to suspend Diab’s motion artifact suppression module, it may not reduce power consumption in Diab’s system. *Id.* The Board also considered the parties’ expert testimony and found Masimo’s expert testimony more credible. *Id.* The Board therefore rejected Apple’s proffered premise for finding a motivation to combine. We conclude that the Board’s finding of a lack of motivation to combine Diab and Amano is supported by substantial evidence.

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CONCLUSION

We have considered Apple's remaining arguments and find them unpersuasive. Accordingly, the decision of the Board is *affirmed*.

AFFIRMED

COSTS

Costs against Appellant.

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
LIMITATIONS**

The foregoing filing complies with the relevant type-volume limitation of the Federal Rules of Appellate Procedure and Federal Circuit Rules because:

1. The filing has been prepared using a proportionally-spaced typeface and includes 3,900 words.
2. The filing has been prepared using Microsoft Word for Office 365 in 14-point Times New Roman font. As permitted by Fed. R. App. P. 32(g), the undersigned has relied upon the word count feature of this word processing system in preparing this certificate.

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