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Paper 14
Date: August 2, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE OFFICE OF THE UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

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

v.

SLYDE ANALYTICS, LLC,
Patent Owner.

IPR2024-00040
Patent 9,804,678 B2

Before KATHERINE K. VIDAL, *Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office.*

DECISION
Granting Director Review, Vacating the Decision Denying Institution, and Remanding to the Patent Trial and Appeal Board for Further Proceedings

I. INTRODUCTION

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. ("Petitioner") filed a Petition (Paper 3, "Pet.") requesting *inter partes* review of claims 1–15 of U.S. Patent No. 9,804,678 B2 (Ex. 1001, "the '678 patent"). Slyde Analytics, LLC ("Patent Owner") filed a Preliminary Response (Paper 9, "Prelim. Resp."). With Board authorization, Petitioner filed a Preliminary Reply (Paper 10, "Prelim. Reply") to address Patent Owner's arguments for a discretionary denial of institution under 35 U.S.C. § 314(a), and Patent Owner filed a Preliminary Sur-reply (Paper 11, "Prelim. Sur-reply"). On April 30, 2024, the Board issued a Decision denying institution of *inter partes* review (Paper 12, "Dec."). The Board determined that Petitioner did not establish a reasonable likelihood of prevailing with respect to at least one of the challenged claims. Dec. 2.

On May 16, 2024, Petitioner filed a request for Director Review. Paper 13 ("DR Request" or "Director Review Request"); Ex. 3100. Petitioner argues, in part, that the Board "issued an erroneously narrow construction of the term 'processor,'" without considering the intrinsic evidence and instead relying solely on extrinsic evidence. *See* DR Request 11–14. I have reviewed the Director Review Request, the Board's Decision denying institution, the relevant papers, and the relevant exhibits of record in this proceeding. I determine that Director Review of the Board's Decision denying institution is appropriate. *See* Revised Interim Director Review Process[1] §§ 4.B, 5.A. For the reasons set forth below, I vacate the Board's

[1] Available at www.uspto.gov/patents/ptab/decisions/revised-interim-director-review-process.

denial of institution and remand to the Board for further proceedings consistent with this decision.

II. BACKGROUND

The '678 patent is directed to "wristwatches with a touch panel and a plurality of power modes." Ex. 1001, 1:14–16. The user may enter a gesture, e.g., a tap, double tap, or long tap, to switch power modes. *Id.* at 2:43–47. The '678 patent describes that "[t]he simultaneous and combinatory usage of an inertial sensor, such as an accelerometer, and of a touch sensor or touch panel for detecting a gesture provides a more reliable discrimination between various gestures and other manipulations." *Id.* at 2:48–52.

Figure 2, reproduced below, is an exemplary schematic representation.

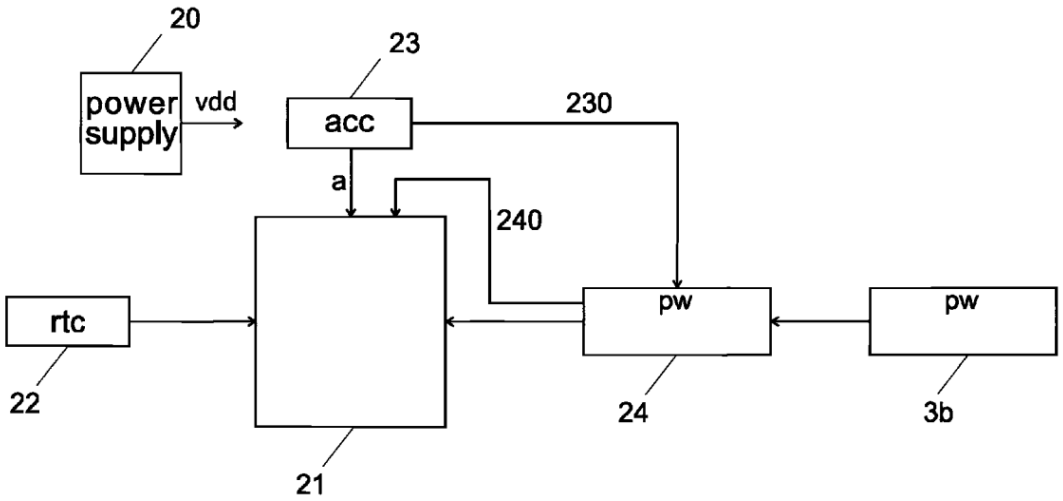

Fig. 2

Ex. 1001, Figure 2

Figure 2 illustrates "a possible arrangement of some components . . . of [the] wristwatch." Ex. 1001, 3:27–28. Power supply 20 supplies power to all components. *Id.* at 5:12–14. "[M]icrocontroller 21 controls the display of

indications on the matrix panel 4 [not depicted in Figure 2], depending on signals provided by the sensors 22, 23, and on commands entered by the user through the touch panel 4." *Id.* at 5:13–16. Sensor 23 is an inertial sensor. *Id.* at 5:20. In one embodiment:

> inertial sensor 23 could be an accelerometer with embedded power processing capabilities and which is always powered on in the first low power mode. The embedded power processing capabilities comprise a *processor* or other processing means for executing programmable software code for analy[z]ing the accelerations values delivered by the accelerometer, and for generating signals or values when certain conditions are met.

Id. at 6:15–22 (emphasis added).

Independent claim 14, excerpted in part below, is illustrative of the challenged claims.

> 14. A wristwatch which can be operated in a plurality of power modes including a first power mode and a second power mode, comprising:
>
> . . .
>
> 14[E][1] an inertial sensor comprising an accelerometer and a processor and/or other processing means,
>
> 14[E][2] said accelerometer being arranged for generating an acceleration signal and
>
> 14[E][3] the processor and/or other processing means being arranged for discriminating between gesture and no gesture based on a direction of said acceleration signal as measured by said accelerometer being a three[-]dimensional accelerometer, and
>
> . . . .

Ex. 1001, 12:19–48 (claim limitation identifiers added, as proposed by Petitioner and adopted by the Board; *see* Pet. 23–50; Dec. 5–6).

Petitioner alleges, *inter alia*, that the combination of Orr[2] and Orr682[3] renders obvious certain challenged claims, including claim 14. *See* Pet. 17–61. Petitioner relies on Orr's Figure 3, reproduced below with highlighting added by Petitioner, to disclose a motion sensor circuit, highlighted in red, corresponding to the claimed "inertial sensor," which comprises: (1) motion sensor 32, highlighted in blue, corresponding to the claimed "accelerometer;" and (2) trigger circuit 38, highlighted in green, corresponding to the claimed "processor." *Id.* at 31–32.

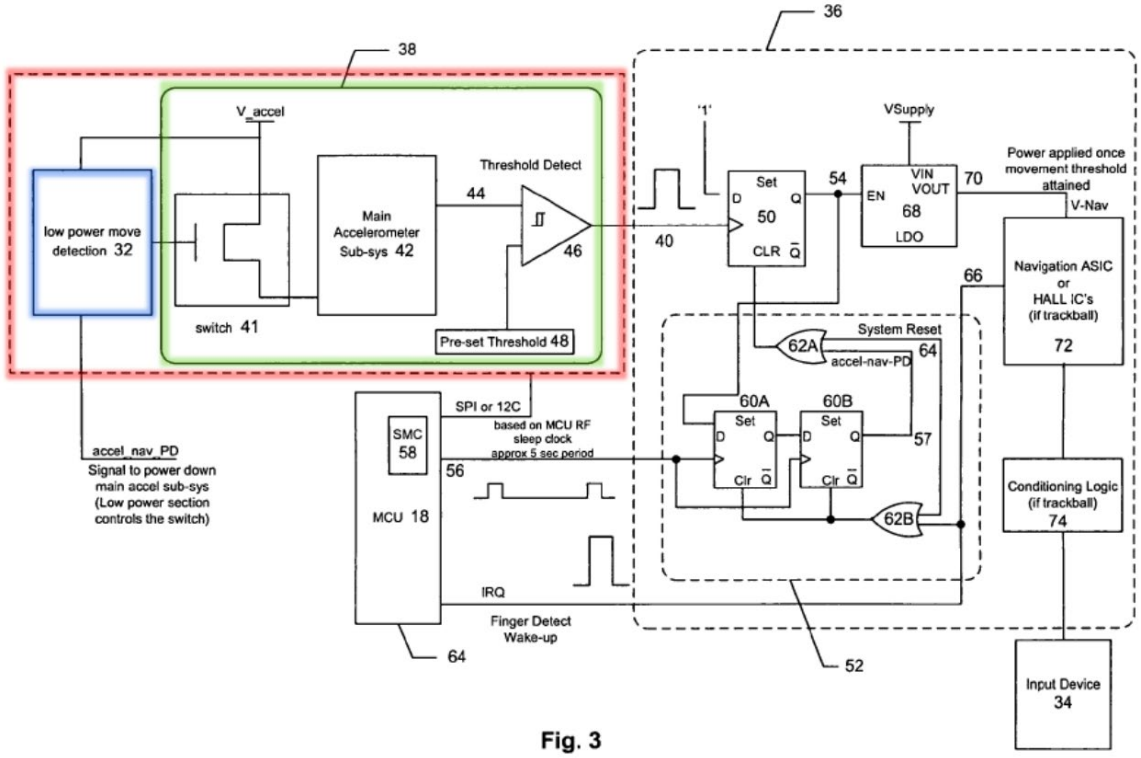

Fig. 3

Ex. 1005, Figure 3

Figure 3 depicts a block diagram of Orr's device activation system. *Id.* at 1:55–56.

[2] US 7,606,552 B2, issued Oct. 20, 2009 (Ex. 1005, "Orr").
[3] US 2010/0194682 A1, published Aug. 5, 2010 (Ex. 1006, "Orr682").

> Petitioner argues:
>
> Orr's trigger circuit 38 comprising main sub-system 42 is an inertial sensor ***processor*** because it detects a "specific gesture," "such as a quick 'snap' movement in certain direction," "detects each component of the gesture," and analyzes each component "to determine whether the gesture has been properly formed."[6] Ex. 1005, 8:64–9:7; Ex. 1002 ¶¶123–124.
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> ---
>
> [6] Indeed, trigger circuit 38 including subsystem 42 must be a processor that can perform such analysis/processing because it is performed while both touch controller (navigation ASIC 72) and microprocessor 18 are in a low-power sleep state, as discussed below for this claim element.

Pet. 31–32.

After observing that "[n]either party provides a construction for 'processor,'" the Board went on to construe the term. Dec. 11–12. The Board first found that "[t]he Specification of the '678 patent does not set forth any definition for the term 'processor,'" and, thus, "[t]he inventors "have not acted as their own lexicographer with respect to the term." *Id.* at 12. The Board then turned to the "definition for 'processor' in The Authoritative Dictionary of IEEE Standards Terms (7th ed. 2000) at 872." *Id.* at 11–12 (citing Ex. 3002). Based on that definition, the Board construed "processor" to require that "a 'processor' has to execute code, program, or instructions, and cannot be met simply by any electrical circuit." *Id.* at 12.

The Board found that under its construction of "processor," Petitioner failed to show a reasonable likelihood of prevailing in showing that the prior art taught or suggested the claim limitation 14[E][1] requiring "an inertial sensor comprising an accelerometer and a processor and/or other processing means." *Id.* at 17–19; Ex. 1001, 12:29–30.

III. ANALYSIS

A. Legal Standard

The Board construes the claims using the same claim construction standard as in a civil action under 35 U.S.C. § 282(b), "in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." 37 C.F.R. § 42.100(b) (2023). "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips v. AWH Corp.,* 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). In *Phillips*, the Court of Appeals for the Federal Circuit provides the procedure for claim construction. *See id.* at 1312. For example, the Federal Circuit instructs courts (and the Board) to look to "'sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean,'" including "'the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.'" *Id.* at 1314 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Syst., Inc.*, 381 F.3d 1111 (Fed. Cir. 2004)).

Claim construction begins with "the claims themselves," which "provide substantial guidance as to the meaning of particular claim terms." *Id.* Next, the "claims 'must be read in view of the specification,'" which "'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The Federal Circuit further instructs that, "[i]n

addition to consulting the specification, . . . a court 'should also consider the patent's prosecution history, if it is in evidence.'" *Id.* at 1317 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc)).

The Federal Circuit also authorizes "rel[iance] on extrinsic evidence, which 'consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.'" *Id.* (quoting *Markman*, 52 F.3d at 980). However, the Court cautions that "extrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1319.

B. Claim Construction

In the Director Review Request, Petitioner argues that the Board erred in narrowly construing "'processor' as having 'to execute code, program, or instructions,'" that "'cannot be met simply by any electrical circuit.'" DR Request 12 (citing Dec. 12). Petitioner argues that the Board erred by narrowly construing processor in a manner unsupported by the intrinsic evidence. *Id.* at 12–13. Petitioner contrasts that definition with the use of the term "processor" in the '678 patent claims and the Specification. *See id.* at 12–13. For example, Petitioner asserts that the '678 patent Specification describes a non-limiting embodiment of a processor "for executing programmable software code for analyzing the accelerations values delivered by the accelerometer, and for generating signals or values when certain conditions are met." *Id.* (citing Ex. 1001, 6:10–22). Petitioner argues that "the claims are broader than this one description" because they do not require "that the processor be capable of 'executing programmable software code.'" *Id.* at 13 (citing Ex. 1001, 12:29–36).

I respectfully agree with Petitioner that the Board erred in construing the claimed "processor" based solely on extrinsic evidence without first thoroughly considering all of the intrinsic evidence.[4] *See Phillips*, 415 F.3d at 1319.

First, it is not evident from the Decision that the Board considered the claim as a whole, as it appears that the Board considered only limitation 14[E][1] without also considering limitation 14[E][3]. *See* Dec. 11–12, 17–18. Specifically, limitation 14[E][1] introduces "an inertial sensor comprising an accelerometer and a processor." Ex. 1001, 12:29–30. But limitation 14[E][3] provides for the function of the processor, i.e., "the processor . . . being arranged for discriminating between gesture and no gesture based on a direction of said acceleration signal as measured by said accelerometer being a three dimensional accelerometer." *Id.* at 12:33–37. The Board should have considered whether limitation 14[E][3] provides additional context for understanding the processor as introduced in limitation 14[E][1].

Additionally, I note that the Board found that claim limitation 14[E][1] is dispositive (*see* Dec. 17), but appeared to refer to the gesture features found in claim limitation 14[E][3] (*see* Dec. 18–19) without addressing Petitioner's arguments as to that limitation. On remand, the

[4] I recognize that Petitioner did not cite the intrinsic evidence discussed below until its Director Review Request. Ex. 1001, 6:10–22, 12:29–36; DR Request 11–13. However, the Federal Circuit's *Phillips* framework requires the Board to consider the intrinsic evidence, including the claims and Specification, before resorting to extrinsic evidence to construe the claims. In this particular case, I determine that the Board should have identified and analyzed these pertinent pieces of intrinsic evidence that were available to it before resorting to the IEEE dictionary definition of the term.

Board should jointly consider 14[E][1] and 14[E][3] along with Petitioner's arguments in relation to Orr and Orr682 as pertaining to these claim limitations. *See* Request 14–15; Pet. 33–37. I note that if the Board finds that the "processor" limitation in 14[E][3] is met, it appears to follow ineluctably that the more broadly phrased "processor" limitation in 14[E][1] is also met.

Second, it is not evident from the Decision that the Board considered the '678 patent Specification's description of the processor. Rather, the Board found only that the '678 patent Specification "does not set forth any definition for the term 'processor.'" Dec. 11–12. As the Federal Circuit explains, "[a]ssigning such a limited role to the specification, and in particular requiring that any definition of claim language in the specification be express, is inconsistent with our rulings that the specification is 'the single best guide to the meaning of a disputed term.'" *Phillips*, 415 F.3d at 1320–21 (quoting *Vitronics*, 90 F.3d at 1582).

In this case, the '678 patent Specification describes one embodiment in which inertial sensor 23's "embedded power processing capabilities comprise a processor or other processing means for executing programmable software code for analy[z]ing the accelerations values delivered by the accelerometer, and for generating signals or values when certain conditions are met." Ex. 1001, 6:10–22. The Board should have considered this description of the processor, including whether the claimed processor is broader than this one embodiment from the Specification. For example, as Petitioner argues, the claim language does not include the Specification's description of "executing programmable software code," suggesting that the term is, indeed, broader than this embodiment. *See* Ex. 1001, 12:33–37; 6:10–22; DR Request 13.

Third, the Board may consider extrinsic evidence, but only "in the context of the intrinsic evidence." *Phillips*, 415 F.3d at 1319. In doing so, the Board should not import limitations into the claims from the extrinsic evidence that are narrower than the Specification's own requirements, or lack thereof. For example, the extrinsic evidence currently of record does not support what appears to be a negative limitation in the Board's construction, which is that the processor "cannot be met simply by any electrical circuit." Dec. 12. Here, I caution the Board that "heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification." *Phillips* at 1321. Moreover, the Board should ensure that any extrinsic evidence reflects the meaning at the relevant time. *See id*. at 1313. In this case, the IEEE dictionary relied on by the Board was published over a decade before the filing date of the application. *See* Ex. 3002.

In sum, while I respect the Board's discussion of the extrinsic evidence in this case, I determine that the Board erred when construing the claimed "processor" by failing to adequately address intrinsic evidence of record. Accordingly, I vacate the Board's Decision and remand to the Board to construe "processor" in a manner that is consistent with this decision and the entire record. The Board may authorize the parties to file supplemental briefing addressing the construction of "processor." After construing "processor," the Board shall consider any remaining issues and determine whether to institute trial.

IV. CONCLUSION

I respectfully vacate the Board's Decision denying institution and remand to the Board for further proceedings consistent with this decision.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Director Review is granted;

FURTHER ORDERED that the Board's Decision denying institution of *inter partes* review (Paper 12) is vacated; and

FURTHER ORDERED that the case is remanded to the Board for further proceedings consistent with this decision.

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