

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC. and MOTOROLA MOBILITY LLC,
Petitioner,

v.

GLOBAL TOUCH SOLUTIONS, LLC,
Patent Owner.

Case IPR2015-01171
Patent 7,994,726 B2

Before JUSTIN BUSCH, LYNNE E. PETTIGREW, and
BETH Z. SHAW, *Administrative Patent Judges*.

SHAW, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

INTRODUCTION

In this *inter partes* review, instituted pursuant to 35 U.S.C. § 314, Apple Inc., and Motorola Mobility LLC (collectively, “Petitioner”) challenge the patentability of claims 1, 3–10, 19, 20, and 27 (“the challenged claims” of U.S. Patent No. 7,994,726 B2 (Ex. 1001, “the ’726 patent”),

owned by Global Touch Solutions, LLC (“Patent Owner”). We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons discussed below, Petitioner has shown by a preponderance of the evidence that claims 1, 3–10, 19, 20, and 27 of the ’726 patent are unpatentable.

A. Procedural History

Petitioner filed a Petition for *inter partes* review of claims 1, 3–10, 19, 20, and 27 of the ’726 patent. Paper 3 (“Pet.”). Patent Owner did not file a Preliminary Response. On November 17, 2015, we instituted an *inter partes* review of claims 1, 3–10, 19, 20, and 27 of the ’726 patent on all asserted grounds of unpatentability. Paper 8 (“Institution Decision” or “Dec.”). After institution, Patent Owner filed a Patent Owner Response, Paper 14 (“PO Resp.”), and Petitioner filed a Reply to the Patent Owner Response, Paper 19 (“Pet. Reply”). A consolidated oral hearing was held for this case and several others on August 3, 2016. A transcript of the hearing has been entered into the record. Paper 33 (“Tr.”).

B. Related Matters

Petitioner identifies the following district court proceedings that may be affected by a decision in this proceeding: *Global Touch Solutions, LLC. v. Toshiba Corp.*, No. 3:15cv2746-JD (N.D. Cal.); *Global Touch Solutions, LLC. v. VIZIO, Inc.*, No. 3:15cv2747-JD (N.D. Cal.); *Global Touch Solutions, LLC v. Apple Inc.*, No. 3:15cv2748-JD (N.D. Cal.); *Global Touch Solutions, LLC. v. Motorola Mobility LLC*, No. 3:15cv2749-JD (N.D. Cal.); *Global Touch Solutions, LLC. v. Microsoft Corp., et al.*, No. 3:15cv2750-JD (N.D. Cal.). Paper 7, 1–2. Patent Owner also identifies IPR2015-01147,

which is a petition for *inter partes* review of the '726 patent filed by a different petitioner. Paper 6.

C. The '726 Patent

The '726 patent is directed to portable electronic devices that operate on exhaustible power sources such as batteries. Ex. 1001, Abstract. The '726 patent describes using a microchip-controlled switch that manages both current-conducting and user-interface functions in an electronic device such as a flashlight without the switch itself conducting current to the load. *Id.* at 3:61–66. A visible indicator such as a light emitting diode (LED) can be used to indicate the condition of the battery. *Id.* at 9:46–54, Fig. 11.

D. Illustrative Claim

Claim 1, which is illustrative, reads:

1. A method for controlling a product comprising a power source, or a connection for a power source, and an energy consuming load, said method including the step of providing an electronic module comprising an electronic circuit including a microchip and a touch sensor forming part of a user interface, said microchip adapted to control the activation of a visible indication in response to an activation signal received from the user interface while operation of the load is unaffected.

Id. at 12:28–36.

E. Grounds of Unpatentability Instituted for Trial

We instituted a trial on the ground that claims 1, 3–10, 19, 20, and 27 of the '726 patent are unpatentable based on the following specific grounds (Pet. 28–57):

Reference	Basis	Challenged Claim(s)
Beard ¹ and Rathmann ²	35 U.S.C. § 103(a)	1, 3, 5, 6, 10, 19, and 27
Beard, Rathmann, and Danielson ³	35 U.S.C. § 103(a)	4, 7, 8, 9, and 20

II. DISCUSSION

A. Claim Construction

In an *inter partes* review, we construe claim terms in an unexpired patent according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see also Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (holding that 37 C.F.R. § 42.100(b) “represents a reasonable exercise of the rulemaking authority that Congress delegated to the Patent Office”). Consistent with the broadest reasonable construction, claim terms are presumed to have their ordinary and customary meaning as understood by a person of ordinary skill in the art in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may provide a meaning for a term that is different from its ordinary meaning by defining the term in the specification with

¹ U.S. Patent 5,898,290, issued Apr. 27, 1999 (Ex. 1005, “Beard”).

² U.S. Patent 5,955,869, issued Sept. 21, 1999 (Ex. 1006, “Rathmann”).

³ U.S. Patent 5,710,728, issued Jan. 20, 1998 (Ex. 1007, “Danielson”).

reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Absent such a clear, deliberate, and precise definition, it is one of the “cardinal sins” of patent law to import limitations from an embodiment in the specification into the claims. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1320 (Fed. Cir. 2005) (en banc).

In the Petition, Petitioner proposed a construction for “energy consuming load” and “mains.” Pet. 8–10. Patent Owner did not file a Preliminary Response. In the Institution Decision, we determined the term “energy consuming load” did not require express construction, and we construed “mains” as “at least the power source provided by a main distribution network, such as a utility.” Dec. 4–5. In its Patent Owner Response, Patent Owner proposes a construction for “user interface,” “energy consuming load” and “a function that was activated in response to an activation signal, received from said user interface.” PO Resp. 14–23. We agree with Petitioner that Patent Owner does not apply its proposed construction of “user interface” in its analysis and does not point us to a reason why this construction is relevant to any issue in this proceeding. Additionally, we determine that it is not necessary to construe “a function that was activated in response to an activation signal, received from said user interface” to resolve the controversy here. We construe “energy consuming load,” as discussed in more detail below. To the extent it is necessary for us to construe any additional claim terms in this decision, we do so below in the context of analyzing whether the prior art renders the claims unpatentable.

“energy consuming load”

Patent Owner argues that “energy consuming load” means “an energy-consuming component that receives power from the power source

under the control of the microchip.” PO Resp. at 16–20. Petitioner disagrees, and argues that the claim does not require that the microchip somehow controls power to the load. Pet. Reply 3 (citing Ex. 1035). Thus, Petitioner argues, Patent Owner’s construction attempts to improperly import limitations from the Specification into the claims. *Id.* at 4–5. Moreover, Petitioner argues that Patent Owner’s own expert confirms that the ordinary meaning of “energy consuming load” is any part of the product that consumes energy when the product is used. *Id.* at 3–4 (citing Ex. 1036, 102:1–5).

For the following reasons, we agree with Petitioner that under the broadest reasonable construction, the term “energy consuming load” means any part of the product that consumes energy when the product is used.

We begin our analysis with the language of the claims. As Petitioner points out, the claims do not recite that energy consuming load is a component that receives power from the power source under the control of the microchip. Rather, claim 1 merely recites a “method for controlling a product comprising a power source, or a connection for a power source, and an energy consuming load.” Ex. 1001, 12:28–30. Claim 1 also recites “said method including the step of providing an electronic module comprising an electronic circuit including a microchip and a touch sensor forming part of a user interface, said microchip adapted to control the activation of a visible indication in response to an activation signal received from the user interface while operation of the load is unaffected.” *Id.* at 12:30–36. Thus, looking at the plain language of claim 1, we agree with Petitioner that the claim does not require that the microchip controls power to the load. Petitioner points

out that Patent Owner's expert agreed with this during deposition. Pet. Reply 3 (citing Ex. 1035, 91:22-93:7).

We also look to the written description. Patent Owner argues the "very character of the invention" in the '726 patent is a microchip-controlled switch that manages conducting of current to the load using a man-machine interface device that itself does not conduct current to the load. PO Resp. 16. Patent Owner argues every embodiment in the specification includes this feature and the specification distinguishes over the prior art based on this feature. *Id.* This argument is unconvincing because "energy consuming load" is not explicitly referred to anywhere in the written description. At oral argument, counsel for Patent Owner acknowledged that there is "no explicit lexicography definition" for the term energy consuming load. Tr. 93:15. Rather, the written description merely refers to a "load," which also is not defined explicitly. *See* Ex. 1001, 6:52–57.

Thus, we must determine whether the patentee limited the meaning of a term that is not even mentioned in the written description, through statements made in the written description. A specification may only be used to limit a claim if a patentee has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002).

We have reviewed Patent Owner's references to the Specification as presented in the Patent Owner Response and do not find any expressions of manifest restriction requiring us to limit the claims. First, Patent Owner directs us to the '726 patent's discussion of prior art flashlights and argues that "central to the invention of the '726 [p]atent is its explicit distinction

over this conventional configuration by virtue of providing a low-current MMI switch that does not itself conduct current to the load.” PO Resp. 16–19 (citing Ex. 1001, 7:23–29; 5:8–15; 3:33–38). We are not persuaded this discussion of prior art flashlights is sufficient expression of manifest restriction requiring us to limit claim 1 in the manner Patent Owner proposes.

Patent Owner argues that a load under the control of the microchip is the “very character of the invention” that requires us to limit the claims. PO Resp. 16–20 (citing *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1370 (Fed. Cir 2003)). However, we cannot redraft the claims for the Patent Owner to try to cover unclaimed features described in the Specification, even if the feature was found in every embodiment. *See Ventana Med. Sys., Inc. v. BioGenex Labs., Inc.*, 473 F.3d 1173, 1181 (Fed. Cir. 2006) (refusing to read limitation found in all embodiments in the specification into the claims because “[w]hen the claim addresses only some of the features disclosed in the specification, it is improper to limit the claim to other, unclaimed features”); *see also E-Pass Techs., Inc. v. 3COM Corp.*, 343 F.3d 1364, 1370 (Fed. Cir. 2003) (refusing to read feature of every embodiment from specification into the claims because “[a]n invention may possess a number of advantages or purposes, and there is no requirement that every claim directed to that invention be limited to encompass all of them”). Moreover, we are unpersuaded by Patent Owner’s argument that the energy consuming load being a load that is under the control of the microchip is the “very character of the invention” because, as discussed above, we determine that Patent Owner does not direct us to any statements in the Specification that support this conclusion.

Patent Owner does not allege that any prosecution history is helpful to ascertain the meaning of the “energy consuming load.” See Tr. 72:9–14. Petitioner points out that claims of Patent Owner’s related patents in fact contradict Patent Owner’s proposed construction. When the patentee wanted to include a requirement that the microchip control the flow of power, it did so expressly and without leaving it implied in the term “energy consuming load.” For example, claim 52 of related U.S. Patent No. 7,329,970 recites “using the microchip to control the connection of the power source to the load.” Ex. 1037 (claim 52).

We have considered all of the parties’ arguments and supporting evidence regarding the construction of “energy consuming load” as recited in claim 1. For the reasons discussed, we agree with Petitioner that the scope of “energy consuming load” is not limited to a load that is under the control of the microchip, as asserted by Patent Owner.

B. Obviousness of Claims 1, 3, 5, 6, 10, 19, and 27 Over the Combination of Beard and Rathmann

Petitioner contends that claims 1, 3, 5, 6, 10, 19, and 27 are unpatentable under 35 U.S.C. § 103(a) as obvious over Beard and Rathmann. Pet. 28–49. Relying on the testimony of Mr. Beard, who is one of the inventors of the Beard reference, Petitioner explains how the combination of Beard and Rathmann allegedly teaches all the claim limitations. *Id.* (citing Ex. 1003).

1. Beard

Beard describes an intelligent battery pack with a microcontroller and battery indicators for use with a portable electronic device. Ex. 1005, 1:18–21; see also Ex. 1003 ¶ 68. The microcontroller responds to a touch-sensing

circuit that detects changes in impedance or capacitance when an operator touches one or two contacts. Ex. 1005, 11:12–16; Ex. 1003 ¶ 68. Figure 11 of Beard is reproduced below.

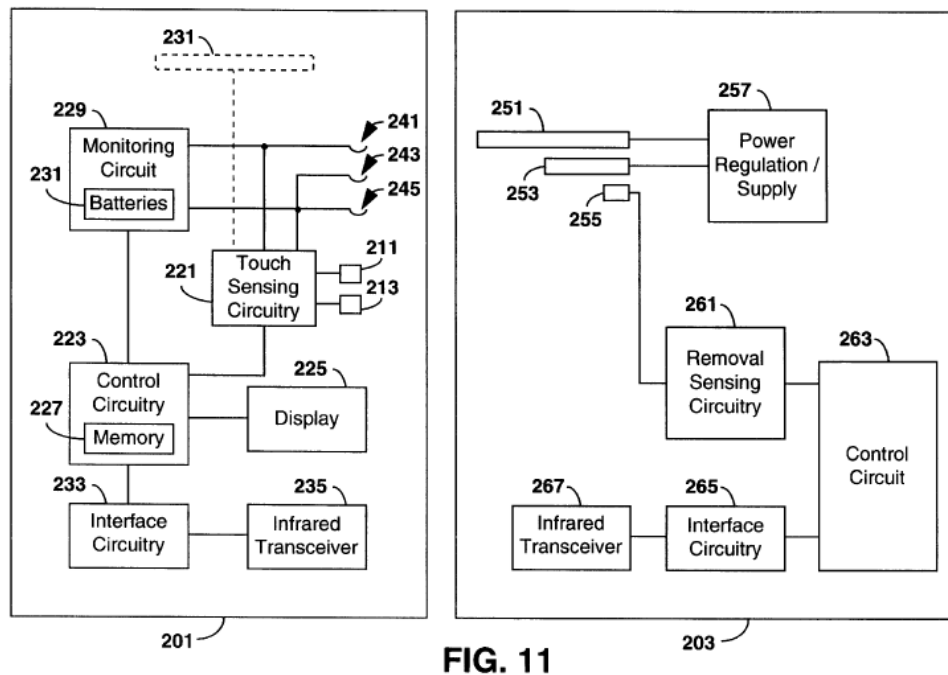


FIG. 11

Figure 11 depicts a battery pack 201 that provides an operator with an indication of battery capacity whether or not it is inserted into portable electronic device 203. Ex. 1005, 11:10–13. When fully inserted, the battery pack contacts 241, 243 and 245 engage the corresponding contacts 251, 253 and 255, and, if sufficient power is available, the device 203 may enter a fully operational state when the operator desires. *Id.* at 11:67–12:4.

2. Rathmann

Rathmann describes a “smart battery for use in an intelligent device having power management capabilities.” Ex. 1006, 1:12–16; 1:65–3:30. Rathmann’s indicator is comprised of LEDs. In response to a signal from battery pack’s user interface, four LEDs illuminate sequentially to indicate

remaining battery charge. Ex. 1006, Fig. 3, 16:24–36; *see also* Ex. 1003 ¶ 87.

3. Claims 1 and 27

Petitioner asserts that the combination of Beard and Rathmann teaches all of the limitations of independent claims 1 and 27. For the following reasons, we agree with and adopt Petitioner’s contentions regarding Beard and Rathmann’s teachings of each these limitations. For reference, we refer to the limitations of claim 1 in our discussion. Independent claim 27 contains similar recitations.

First, Petitioner contends that Beard discloses battery pack 201 of Figure 11, which is an electronic module comprising electronic circuitry, as recited in claim 1. Pet. 31. Petitioner contends Beard further discloses providing battery pack module 201 with a microchip, in the form of control circuit 223, and a touch sensor, including touch sensing circuitry 221 and touch contacts 211 and 213 that comprise a functional battery pack. *Id.* at 31–32 (citing Ex. 1005, Fig. 11, items 223, 221, 211, 213; Ex. 1003 ¶ 133). Patent Owner does not dispute that Beard discloses these limitations.

“a microchip and a touch sensor forming part of a user interface, wherein the microchip also controls a visible indicator that is activated in response to an activation signal received from the user interface while operation of the load is unaffected”

We agree with Petitioner’s contentions that Beard discloses that the microchip and touch sensor form part of a user interface for the operator. Pet. 32–34 (citing Ex. 1005, 11:12–22). Specifically, Beard explains that “[t]o initiate the display of battery capacity, an operator touches a pair of contacts 211 and 213.” *Id.* Moreover, Beard discloses that the microchip controls the activation of the visible indication in response to an activation

signal received from the user interface (e.g., the touch sensor). Ex. 1005, 11:14–22 (“A touch sensing circuit 221 detects the resultant impedance change across the contacts 211 and 213, and activates a control circuit 223 to service the request. . . . [T]he control circuit 223 responds to the request by delivering charge status information to the operator via a display 225.”); Ex. 1003 ¶ 140.

Petitioner further contends that this is all done while operation of the load is not affected. Pet. 34. We agree. In particular, Beard discloses that control circuit 223 (microchip) uses previously monitored load characteristics stored in battery memory, rather than obtaining these characteristics from device 203 itself. *Id.* (citing Ex. 1005, 11:23–30). Beard discloses that “battery pack 201 provides an operator with an indication of battery capacity *whether or not it is inserted* into a portable electronic device 203.” Ex. 1005, 11:10–12 (emphasis added). Thus, Beard’s battery pack indicator is activated *without affecting the load* of the device. *See* Ex. 1003 ¶ 77. Rathmann also discloses additional detail about activating a visible indicator (between one and four LEDs that illuminate to indicate battery capacity in successive 25% intervals relative to a full charge of 100%) in response to a user interface switch activation signal when the load is not activated by the user. Pet. 35 (citing Ex. 1006, 16:24–29).

Patent Owner argues that Beard and Rathmann do not teach “a product comprising a power source, or a connection for a power source, and an energy consuming load.” PO Resp. 24. Patent Owner contends that none of the components in the device 203 of Beard receives power from the power supply under the control of the control circuitry 223 or user interface of the battery pack 201. *Id.* at 25. Patent Owner’s arguments (*see* PO Resp.

24–39), however, all depend on its proposed construction of “energy consuming load” as limited to a load under the control of a microchip, a construction which we have not adopted.

Thus, Petitioner has shown sufficiently that the combination of Beard and Rathmann teaches all the limitations of claim 1. We agree with and adopt Petitioner’s articulated reasoning with rational underpinning for combining the references. Pet. 19–24. For the foregoing reasons, we conclude that Petitioner has shown by a preponderance of the evidence that claims 1 and 27 would have been obvious in view of Beard and Rathmann.

4. Claim 3

Petitioner further contends that Beard discloses the additional limitation of dependent claim 3, which recites “wherein the power source is enclosed in the product housing.” Ex. 1001, 12:39–41; Pet. 37–39. Figure 8 of Beard is reproduced below.

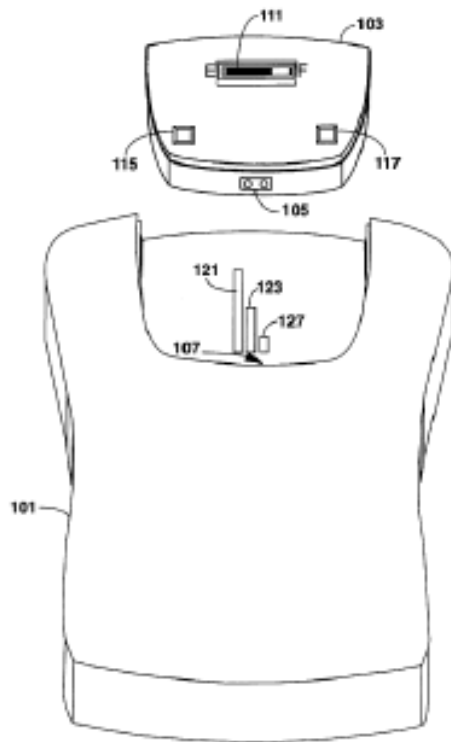


FIG. 8

Figure 8 of Beard depicts battery pack 103 that may be inserted in a slot in the bottom of portable terminal 101 to power the terminal. Ex. 1005, Fig. 8, 11:10–12. Thus, Petitioner contends, the “product housing” consists of the outer surfaces of battery pack 103 and portable terminal 101 when battery pack 103 has been “inserted into a portable electronic device” 101. Pet. 38.

Patent Owner argues that the batteries and the components of the device are not included in the same housing. PO Resp. 40 (citing Ex. 2002 ¶ 58). Patent Owner argues that the battery pack 103 and the portable terminal 101 are “entirely distinct and independent devices each contained in their own separate housings and operable separately from each other.” *Id.* Patent Owner argues the battery pack of Beard may be operated when removed

from the terminal device, and the terminal device may be operated using a different power source from the battery pack. *Id.* at 41.

Petitioner responds that Beard describes two configurations: one, as shown in Figure 8, where the battery pack is removed and operated separately, and one, as described at column 9, lines 15 through 16, where the battery pack can be inserted into the larger device, in which case both are enclosed within the same outer housing. Pet. Reply 23–24 (citing Pet. 37–38).

We agree with and adopt Petitioner’s contentions regarding Beard’s teaching of the limitation of dependent claim 3. The claim recites “wherein the power source is enclosed in the product housing.” Claim 3 depends from claim 1, which recites a “method for controlling a product comprising a power source. . . .” Ex. 1001, 12:28–29. Thus, claim 1 explicitly recites that the power source *is part of* the claimed product. When the power source of Beard is inserted into the portable terminal, the “product housing” consists of the outer surfaces of the battery pack and the portable terminal. Thus, we agree that Beard teaches, as shown in Figure 8, the product housing consists of the outer surfaces of battery pack 103 and portable terminal 101 when battery pack 103 has been inserted into a portable electronic device 101. Pet. 38. Accordingly, Beard teaches “wherein the power source is enclosed in the product housing,” as recited in dependent claim 3.

For the foregoing reasons, we conclude that Petitioner has shown by a preponderance of the evidence that claim 3 of the ’726 patent would have been obvious in view of Beard and Rathmann.

5. *Claims 6 and 19*

Petitioner further contends that Beard discloses the additional limitation of dependent claims 6 and 19, which both recite “the step of automatically deactivating a function that was activated in response to an activation signal, received from said user interface, a predetermined period of time after it was activated.” Pet. 40–44. For the following reasons, we agree with and adopt Petitioner’s contentions regarding Beard’s teachings of these limitations. *Id.*

Patent Owner argues that Beard and Rathmann do not teach these limitations. In particular, Patent Owner argues that the delayed deactivation must be some function other than the activation of the visible indicator. PO Resp. 21–23. As support, Patent Owner points to claim 5, from which claim 6 depends, as reciting “automatically deactivating the visible indication a predetermined period of time after it was activated.” *Id.* at 21. Patent Owner argues that, in this context, the function of claims 6 and 19 must be considered distinct from the deactivating of the visible indication recited in claim 5. *Id.*

First, we find that claim 19 depends only from claim 1, and not from claim 5, and we are therefore unpersuaded by this argument with respect to claim 19. Second, even under Patent Owner’s proposed construction as requiring the function to be something other than deactivating the visible indication, Beard discloses the activation, and automatic deactivation 10 seconds later, of at least two functions: (1) the calculation and display of battery capacity information, and (2) the calculation and display of remaining time in response to a user pressing the touch sensor, thus disclosing this limitation. Ex. 1005, Fig. 9, 10:37–56; *see also* Ex. 1003 ¶¶

157–160. In particular, Beard discloses that the function of displaying battery charge status is activated in response to an activation signal of a single touch contact in Figure 9 received from the user interface. *See, e.g.*, Ex. 1005, Fig. 9, 10:48–50 (“[T]he battery pack 155 utilizes a single touch contact 155 to initiate the delivery of charge status to an LCD display 157 for viewing.”); *see also* Ex. 1003 ¶ 132. Beard discloses that the battery pack of Figure 9 displays charge status information in the form of *both* (1) available capacity and (2) projected remaining time estimates of battery life in response an activation signal from the user interface. *See, e.g., id.* at 10:37–40 (“FIG. 9 is a perspective view illustrating a further embodiment of the battery pack of FIG. 8 which includes an LCD (Liquid Crystal Display) screen that is used to display both available capacity and remaining time estimates.”); *see also id.* at 11:45–48 (“Instead of (or in addition [to]) displaying the percentage of available battery capacity, the control circuitry 223 interacts with the display 225 to deliver the time estimates to the operator.”). Beard also discloses that the charge status information display functions in Figure 9 automatically deactivate the indication after 10 seconds. *See, e.g.*, Ex. 1005, 10:51–56 (“Moreover, a timing circuit prevents the contact 155 from holding the display 157 and associated circuitry in an active state for more than a ten (10) second interval. After the ten second display period, deactivation occurs whether or not the contact 155 is being touched.”); *see also* Ex. 1003 ¶ 133.

Beard describes displaying battery capacity as a feature different from displaying a remaining time estimate. Ex. 1005, Abstract, 10:37–45, 11:45–48, 12:59–65. For example, Beard states that instead of—or in addition to—displaying the percentage of available battery capacity, the control circuitry

interacts with the display to deliver the time estimates to the operator. *Id.* at 11:45–48. The fact that Beard describes that battery capacity can be displayed *instead* of time estimates evidences that (1) the calculation and display of battery capacity and (2) the calculation and display of time estimates are different functions.

Patent Owner also argues that the claimed function is necessarily activated in response to a different activation signal, because the dependent claims recite “an” activation signal and claim 1 also recites “an” activation signal, and thus, claims 6 and 19 must require a different activation signal from claim 1. *See* PO Resp. 22. We are not persuaded that recitation of “an” activation signal in dependent claims 6 and 19 is necessarily a different activation signal from the activation signal in claim 1. Rather, “an activation signal” of claim 6 and 19 encompasses a different signal, but is not *required* to be a different signal. We decline to import the word “different” into claims 6 and 19.

Thus, Petitioner has shown sufficiently that the combination of Beard and Rathmann teaches all the limitations of claims 6 and 19. We agree with and adopt Petitioner’s articulated reasoning with rational underpinning for combining the references. *Pet.* 40–44. For the foregoing reasons, we conclude that Petitioner has shown by a preponderance of the evidence that claims 6 and 19 of the ’726 patent would have been obvious in view of Beard and Rathmann.

6. *Claims 5 and 10*

Other than the arguments already discussed, Patent Owner does not explicitly dispute that the combination of Beard and Rathmann teaches the limitations of claims 5 and 10. Petitioner has shown sufficiently that the

combination of Beard and Rathmann teaches all the limitations of dependent claims 5 and 10. *See* Pet. 39, 41–42. We agree with and adopt Petitioner’s contentions with respect to these claims, and Petitioner’s reasoning for combining the references. *Id.* Accordingly, Petitioner has shown by a preponderance of the evidence that claims 5 and 10 would have been obvious in view of Beard and Rathmann.

C. Obviousness of Claims 4, 7, 8, 9, and 20 over the Combination of Beard, Rathmann, and Danielson

1. Danielson

Mr. Beard is a co-inventor of the Danielson patent. Danielson describes a portable data collection terminal system. Ex. 1007, Abstract, Fig. 2; Ex. 1003 ¶¶ 94, 107. Danielson describes various aspects of such terminal devices, including embodiments that have audio and radio frequency circuitry, a keyboard, or an on/off switch. Ex. 1007, 8:55–57, 22:58–60, 22:65–66; Ex. 1003 ¶ 94.

2. Claims 4, 7, 8, 9, and 20

Petitioner asserts that the combination of Beard, Rathmann, and Danielson teaches all of the limitations of dependent claims 4, 7, 8, 9, and 20.

Dependent claim 4 recites “activating or deactivating the product via commands received from the user interface.” Ex. 1001, 12:42–44. With respect to claim 4, Petitioner contends that Danielson describes an “ON/OFF switch” that is part of the product’s user interface, and that this “ON/OFF switch” is used to activate or deactivate the product, thereby teaching “the method also includes the step of activating or deactivating the product via commands received from the user interface,” as recited in dependent claim

4. Pet. 50 (citing Ex. 1005, Fig. 11, Ex. 1007, 22:65–66). Danielson discloses a “portable, hand-held data collection terminal” while Beard discloses a battery pack for use in such a terminal. Pet. 25 (citing Ex. 1007, 1:62-64).

Petitioner also points to Beard’s own teachings of activating or deactivating the product via commands received from the user interface, by inserting battery pack 201 into device 203 (activating) or by beginning to remove battery pack 201 from device 203 (deactivating). Pet. 51–52 (citing Ex. 1005, 11:63–67; 12:4–13; 12:19–22; Fig. 11; Ex. 1003 ¶¶ 78–81, 196–199).

Patent Owner argues that the battery pack and portable electronic device in Beard are distinct and independent devices in their own “separate” housings, and thus, the “ON/OFF switch” of Danielson is not part of the same user interface as the touch contacts on the battery pack of Beard. PO Resp. 45. Patent Owner argues, “the cited references do not disclose or suggest a same user interface from which are received an activation signal for activation of a visible indication as well as commands for activating or deactivating the product.” *Id.* Patent Owner’s argument, however, depends on a construction of user interface as limited to a “single” component user interface “that includes a microchip” (*id.* at 47), a construction with which we do not agree.

The plain language of dependent claim 4 does not recite a “same user interface” or a “single” component user interface that includes a microchip. Rather, claim 4 depends from independent claim 1, which merely requires “a touch sensor forming *part of* a user interface.” Ex. 1001, 12:32–33 (emphasis added). By stating that the touch sensor forms one “part of” a

user interface, the claims encompass a user interface with multiple parts or components. Thus, the “user interface” is not limited to a single component. Rather, the user interface can have multiple parts, one of which is a touch sensor.

Patent Owner’s expert agreed that a user interface is simply “an interface on a device that allows a user to interact with the device.” Ex. 1036, 151:24–152:3. He also agreed that one interface could be made up of multiple components, including both a keyboard and an “on/off switch above [the] keyboard.” Ex. 1035, at 136:16–137:4.

Patent Owner chose to draft a broad claim that encompasses a user interface that allows a user to interact with the device. We determine that Danielson’s ON/OFF switch teaches “the step of activating or deactivating the product via commands received from the user interface,” as recited in dependent claim 4. We also agree that Beard teaches the claim limitation because the battery pack of Beard is another component of the product’s user interface because it can be removed or inserted by a user and because it sends commands (via the pre-removal sensor) to activate or deactivate the product. *See* Ex. 1005, 11:65–56; 12:4–13; 12:19–22; Fig. 11; Ex. 2001, 124:5–14 (“I would consider that mechanism part of the user interface”).

We have considered Patent Owner’s remaining arguments and find none persuasive. PO Resp. 44–52. We agree with and adopt Petitioner’s contentions regarding Beard, Rathmann, and Danielson’s teachings of the limitations of dependent claim 4. *See* Pet. 50–53.

Other than the arguments already discussed, Patent Owner does not explicitly dispute that the combination of Beard, Danielson, and Rathmann teaches the limitations of claims 7, 8, 9, and 20. Petitioner has shown

sufficiently that the combination of Beard, Rathmann, and Danielson teaches all the limitations of dependent claims 7, 8, 9 and 20. *See* Pet. 50–57. We agree with and adopt Petitioner’s contentions with respect to these claims, and Petitioner’s reasoning for combining the references. *Id.* Accordingly, Petitioner has shown by a preponderance of the evidence that claims 4, 7, 8, 9 and 20 would have been obvious in view of Beard, Rathmann, and Danielson.

III. CONCLUSION

Based on the evidence and arguments, Petitioner has demonstrated by a preponderance of the evidence that: (1) claims 1, 3, 5, 6, 10, 19, and 27 of the ’726 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over Beard and Rathmann; and (2) claims 4, 7, 8, 9, and 20 of the ’726 patent are unpatentable under 35 U.S.C. § 103(a) as obvious over Beard, Rathmann, and Danielson.

IV. ORDER

Accordingly, it is:

ORDERED that claims 1, 3–10, 19, 20, and 27 of U.S. Patent No. 7,994,726 have been shown to be unpatentable; and

FURTHER ORDERED that, because this is a final written decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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