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Paper 6
Date: July 25, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

THL HOLDING COMPANY, LLC,
Patent Owner.

IPR2024-00397
Patent 8,768,381 B2

Before CHRISTOPHER M. KAISER, SHEILA F. McSHANE, and ELIZABETH J. REAGAN, *Administrative Patent Judges*.

McSHANE, *Administrative Patent Judge*.

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

I. INTRODUCTION

Apple, Inc. ("Petitioner") filed a Petition (Paper 1, "Pet.") requesting *inter partes* review of claims 1–9 and 11 (the "challenged claims") of U.S. Patent No. 8,768,381 B2 (Ex. 1001, "the '381 patent"). THL Holding Company, LLC ("Patent Owner") did not file a preliminary response to the Petition. *See* Paper 3, 1.

Institution of an *inter partes* review is authorized by statute when "the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a) (2018). Upon consideration of the Petition and the evidence of record, we determine that Petitioner has not established a reasonable likelihood of prevailing with respect to the unpatentability of at least one claim of the '381 patent. Accordingly, for the reasons that follow, we decline to institute *inter partes* review of claims 1–9 and 11 of the '381 patent.

A. Related Matters

Petitioner states that "[t]he '381 Patent is presently the subject of a patent infringement lawsuit filed against Petitioner in the United States District Court for the Western District of Texas Waco Division. *THL Holding Company, LLC v. Apple, Inc.*, Case No. 6:23-cv-00077." Pet. 74.

Patent Owner identifies the following civil action as a related matter: *THL Holding Company, LLC v. Apple, Inc.*, Case No. 1:23-cv-00548 (W.D. Tex.).[1] Paper 4, 1. Patent Owner also identifies the following Patent Office

[1] According to district court records, the district court case was transferred from the Waco Division (Case No. 6:23-cv-00077) to the Austin Division

proceedings as related matters: IPR2024-00398, IPR2024-00399, and IPR2024-00400. *Id.*

B. The '381 Patent

The '381 patent is titled "Wireless Device and Methods for Use in a Paging Network" and issued on July 1, 2014 from an application filed on October 2, 2013. Ex. 1001, codes (22), (45), (54). The application was a continuation of Application No. 12/713,346 filed on February 26, 2010 (now issued as U.S. Patent No. 8,588,806). *Id.*, code (63).

The '381 patent is directed to a wireless device including "a user interface that generates a pairing signal in response to an indication from a user to pair the wireless device to at least one remote device and generates a first location request signal in response to a second indication from a user to locate the at least one remote device." Ex. 1001, code (57). The user interface may include "buttons, a display screen such as a touch screen, a speaker, a microphone, a camera for capturing still and/or video images, and/or other user interface devices." *Id.* at 4:34–37. In addition, the '381 patent describes a short-range wireless transceiver that "communicates RF signals to pair the wireless device to the at least one remote device and that transmits a first RF paging signal to the at least one remote device in response to the location request signal." *Id.*, code (57).

(Case No. 1:23-cv-00548) in the United States District Court for the Western District of Texas in May 2023. *See THL Holding Company, LLC v. Apple, Inc.*, No. 1:23-cv-00548, Doc. 19 (W.D. Tex. May 8, 2023).

Figure 5, reproduced below, is a schematic block diagram of a wireless device 120 and an adjunct device 100 in accordance with an embodiment of the invention. Ex. 1001, 7:26–28.

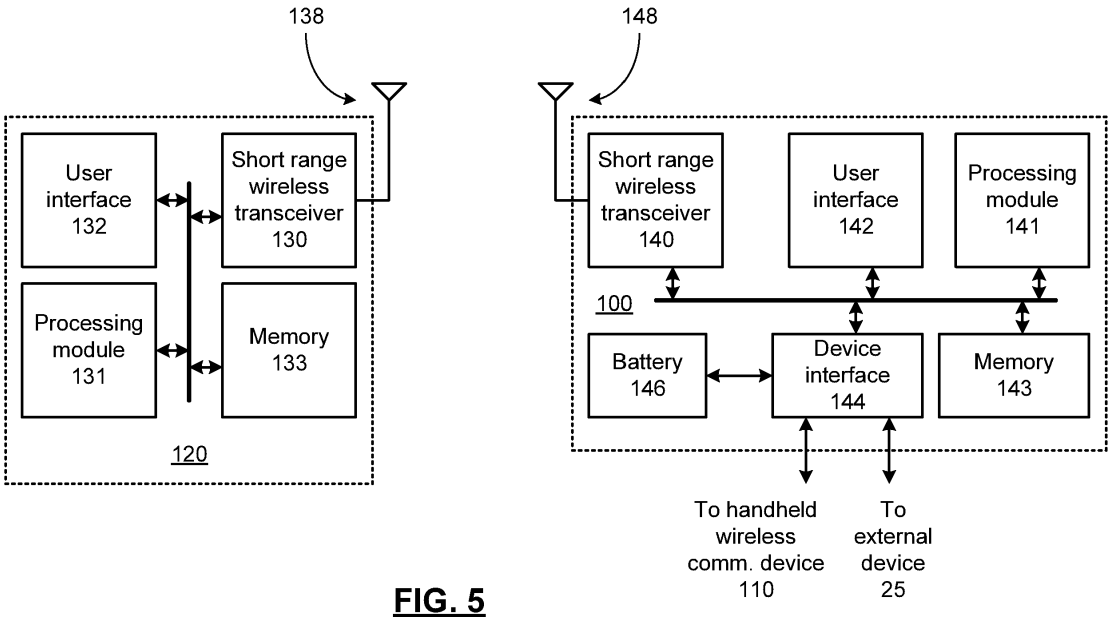

FIG. 5

As shown in Figure 5, "wireless device 120 includes short-range wireless transceiver 130 coupled to antenna 138, processing module 131, user interface 132 and memory 133." Ex. 1001, 7:28–31. Figure 5 also shows that "[a]djunct device 100 includes short-range wireless transceiver 140 coupled to antenna 148, processing module 141, user interface 142 and memory 143, device interface 144, and battery 146." *Id.* at 7:36–39. The '381 patent explains that "[d]evice interface 144 provides an interface between the adjunct device 100 and the handheld wireless communication device 110 and an external device 25, such as a computer or other host device, peripheral or charging unit." *Id.* at 8:58–61. According to the '381 patent, "the short-range wireless transceivers 130 and 140 each can be implemented via a transceiver that operates in conjunction with a communication standard such as 802.11, Bluetooth, ZigBee, ultra-wideband,

Wimax or other standard short or medium range communication protocol, or other protocol." *Id.* at 7:45–50.

Figure 6, reproduced below, illustrates a location system for use with a handheld wireless communication device in accordance with an embodiment of the invention. Ex. 1001, 9:59–62.

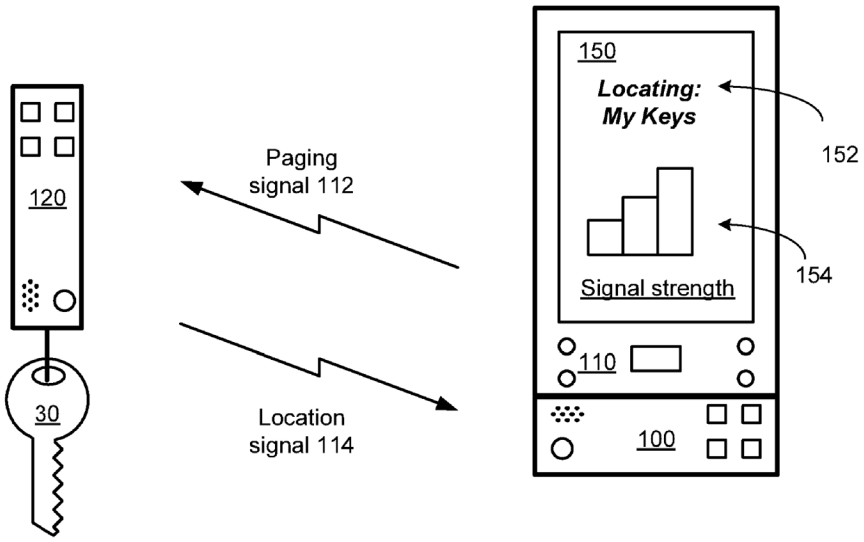

FIG. 6

Figure 6 shows that adjunct device 100 transmits a paging signal 112 and "wireless device 120 transmits a location signal 114 via short-range wireless transceiver 130, such as a beacon signal or other location signal." Ex. 1001, 9:62–66. According to the '381 patent, "[a]djunct device 100 aids the user of handheld wireless communication device 110 in homing in on the location signal 114 based on the signal strength of the location signal 114 as received by short-range wireless transceiver 140." *Id.* at 9:66–10:3. For example, "the handheld wireless communication device 110 executes a location application that operates under user control to initiate the

transmission of paging signal 112 to locate key or keys 30 or other object associated with wireless device 120." *Id*. at 10:4–8. Based on the signal strength of the location signal 114 from short-range wireless transceiver 140, the location application generates an indication 152 of the particular object being located and a visual signal strength indication 154 in display screen 150. *Id*. at 10:8–18. According to the '381 patent, "the user of handheld wireless communication device 110 can move about, seeking to maximize the visual signal strength indication 154 until the key or keys 30 are located." *Id*. at 10:21–24.

The '381 patent also discloses that "[t]he location application can detect when the orientation of the handheld wireless communication device corresponds to the direction of the wireless device, based on the signal strength data." Ex. 1001, 10:52–55. Figure 8, reproduced below, illustrates the handheld wireless communication device 110 and adjunct device 100 in accordance with an embodiment of the invention. *Id*. at 11:22–24.

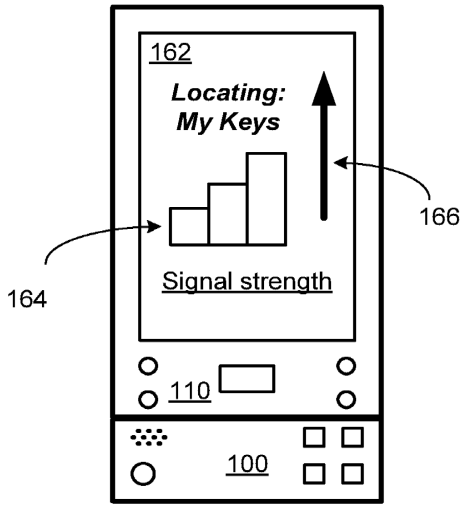

FIG. 8

Figure 8 shows a display screen that includes a signal strength indication 164 and an indication of direction 166. Ex. 1001, 11:24–28. The '381 patent explains that "the location application of handheld wireless communication device 110 can operate to invert the signal strength data to generate the signal strength indication 164 so that when the null direction of the antenna pattern 160 [*see* Figure 7] is aligned with direction to wireless device 120, the low signal strength caused by the null is translated into a high signal strength indication, indicating to the user the device is pointed in the right direction." *Id*. at 11:28–36.

C. Illustrative Claim

Petitioner challenges claims 1–9 and 11 of the '381 patent. Claim 1 is the only independent claim. Claim 1 is reproduced below, with bracketed designations added to limitations for reference purposes. *See* Pet. 78.

> 1[P]. A wireless device for locating at least one remote object, the wireless device comprising:
>
> [1(a)] a graphical user interface [1(a)(i)] that generates a pairing signal in response to a first indication from a user to pair the wireless device to at least one remote device and [1(a)(ii)] generates a first location request signal in response to a second indication from a user to locate the at least one remote device; and
>
> [1(b)] a short-range wireless transceiver, coupled to the graphical user interface, [1(b)(i)] that responds to the pairing signal generated by the graphical user interface by communicating RF signals to pair the wireless device to the at least one remote device and [1(b)(ii)] that transmits a first RF paging signal to the at least one remote device in response to the first location request signal and [1(b)(iii)] that receives a location signal from the at least one remote device;
>
> [1(c)] wherein the graphical user interface presents a display that visually assists the user to locate the at least one remote device.

Ex. 1001, 36:24–42.

D. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–9 and 11 of the '381 patent are unpatentable based on the following grounds:

Claim(s) Challenged	35 U.S.C §	Reference(s)/Basis
1–3	103(a)[2]	Kalayjian[3], Vauclair[4]
4, 6	103(a)	Kalayjian, Vauclair, Kalliola[5]
5, 11	103(a)	Kalayjian, Vauclair, Kalliola, Haney[6]
7, 8	103(a)	Kalayjian, Vauclair, Haney
9	103(a)	Kalayjian, Vauclair, Haney, Trimble[7]

Pet. 5.

[2] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103, and was effective on March 16, 2013. Because the '381 patent has an effective filing date prior to the effective date of the applicable AIA amendments, we refer to the pre-AIA version of 35 U.S.C. § 103. *See* Ex. 1001, code (63).
[3] US 2008/0125040 A1, published May 29, 2008 (Ex. 1006, "Kalayjian").
[4] US 2008/0320587 A1, published December 25, 2008 (Ex. 1005, "Vauclair").
[5] US 2007/0197229 A1, published August 23, 2007 (Ex. 1004, "Kalliola").
[6] U.S. Patent No. 7,353,034 B2, issued April 1, 2008 (Ex. 1007, "Haney").
[7] US 2004/0252030 A1, published December 16, 2004 (Ex. 1008, "Trimble").

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Relying on the testimony of Dr. Buehrer, Petitioner proposes that a person of ordinary skill in the art at the time of the '381 patent "would have been a person having a bachelor's degree in computer science, computer engineering, electrical engineering, or a similar technical field and 2–4 years of experience with wireless ranging and positioning systems, wireless communication devices, and associated computer programming." Pet. 4–5 (citing Ex. 1003 ¶ 35). Petitioner further asserts that "[a]dditional industry experience or technical training may offset less formal education, while advanced degrees or additional formal education may offset lesser levels of industry experience." *Id*. at 5 (citing Ex. 1003 ¶ 35). Patent Owner has not provided any proposed qualifications for a person of ordinary skill in the art.

In determining the level of ordinary skill in the art, various factors may be considered, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). The level of ordinary skill in the art is also reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). We adopt the assessment offered by Petitioner for the purposes of this Decision because it is consistent with the '381 patent and the asserted prior art.

B. Claim Construction

In this *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b) (2021). Under the principles set forth by our reviewing court, the "words of a claim 'are generally given their ordinary and customary meaning,'" as would be understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17).

Petitioner asserts that for "purposes of this proceeding only," it applies Patent Owner's construction in the parallel district court litigation for the term "[a] pairing signal" as "[p]rocessor signal to initiate a wireless device pairing sequence." Pet. 6 (citing Ex. 1009, 4; *Western Digital Corporation v. Spex Technologies, Inc.*, IPR2018-00084, Paper 14, at 11 (PTAB Apr. 25, 2018); *10X Genomics, Inc. v. Bio-Rad Laboratories, Inc.*, IPR2020-00086, Paper 8, at 19–20 (PTAB Apr. 27, 2020)) (emphasis omitted). Petitioner states that for all other terms, it "applies the ordinary and customary meaning of the claim terms as understood by" a person of ordinary skill in the art. *Id.* Patent Owner presents no proposed claim constructions at this time.

We determine that we need not expressly construe any claim terms to resolve the parties' disputes on the current record. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.,* 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. Principles of Law

A patent claim is unpatentable under 35 U.S.C. § 103 if "the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective date of the claimed invention to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103 (2011); *see also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective indicia of nonobviousness.[8] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

D. Asserted Obviousness of the Challenged Claims

Petitioner contends that claims 1–3 are unpatentable under 35 U.S.C. § 103(a) because they would have been obvious over the combination of Kalayjian and Vauclair; claims 4 and 6 would have been obvious over the combination of Kalayjian, Vauclair, and Kalliola; claims 5 and 11 would

[8] Neither party has submitted any objective evidence of nonobviousness at this juncture.

have been obvious over the combination of Kalayjian, Vauclair, Kalliola, and Haney; claims 7 and 8 would have been obvious over the combination of Kalayjian, Vauclair, and Haney; and claim 9 would have been obvious over Kalayjian, Vauclair, Haney, and Trimble. Pet. 16–72. In support, Petitioner also relies upon the Buehrer Declaration. Ex. 1003. Patent Owner does not present any arguments on the merits of Petitioner's showing of obviousness under these grounds.

We begin our discussion with brief summaries of Kalayjian and Vauclair, and then address the evidence and arguments presented for claim 1.

1. Kalayjian (Ex. 1006)

Kalayjian "relates to locating physical devices using a Bluetooth® communications protocol." Ex. 1006 ¶ 1. Kalayjian describes pairing of a "master device," using a Bluetooth protocol, with one or more "slave devices," wherein "[w]hen prompted by a user, the master device can transmit a signal to one of the slave devices," which "can then take a predetermined action to attempt to guide a user to its location." *Id.* ¶ 7.

Figure 3a, reproduced below, illustrates an embodiment of a location discovery system in accordance with the invention. Ex. 1006 ¶ 11.

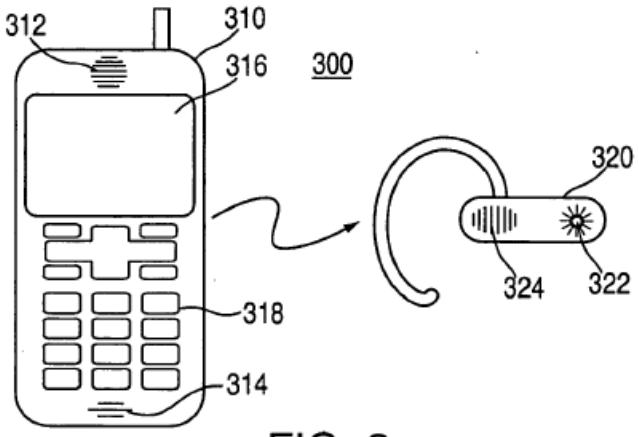

FIG. 3a

Figure 3a shows a device 310, referred to as master device 310, which is a Bluetooth capable cellular phone including speaker 312, microphone 314, display screen 316, and keypad 318. Ex. 1006 ¶ 33. Figure 3a also shows second device 320, referred to as slave device 320, which is a Bluetooth enabled wireless phone headset. *Id.* ¶ 34. According to Kalayjian, the headset 320 can include light 322, which "can be activated to attempt to guide a user to its location," and "speaker 324 to emit sounds operable to guide a user to its location." *Id.*

Kalayjian discloses that when a user wants to locate one of the slave devices (e.g., 320), "the user can initiate the location discovery process through master device 310," which "can transmit a signal to a slave device." Ex. 1006 ¶ 38. "Upon receiving the signal, the slave device can guide a user to its location and/or notify a user of the distance from master device 310 to the slave device." *Id.* According to Kalayjian, in one embodiment, slave device 320 "can guide a user to their location by emitting auditory or visual signals." *Id.* ¶ 39. In another embodiment, slave device 320 "can notify a user of the distance between the slave device and master device 310." *Id.* ¶ 40. In another embodiment, "directional antennas can be used to

determine the direction towards a slave device from the master device." *Id.* ¶ 43.

Figure 8, reproduced below, illustrates a screenshot of a user interface of a device operated in accordance with the principles of the invention. Ex. 1006 ¶ 16.

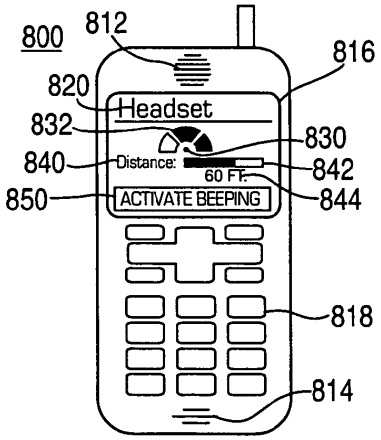

FIG. 8

Figure 8 shows "a screenshot of the user interface of master device 800 when the master device is attempting to locate a slave device." Ex. 1006 ¶ 49. According to Kalayjian, "[s]creen 816 can include directional graphic 830 to indicate to the user the direction where the slave device should be located," and also "include distance graphic 840 to identify the distance between the selected slave device and master device 800." *Id.*

2. Vauclair (Ex. 1005)

Vauclair "relates to a method and apparatus for allowing secure pairing of wired or wireless communications devices." Ex. 1005 ¶ 1. Noting the disadvantages with existing pairing mechanisms between devices, Vauclair describes "a need for a method and apparatus for allowing simple, secure pairing of communications devices that does not require the

input of symbols nor a secondary secure communication channel." *Id.* ¶¶ 3–7.

Figure 1, reproduced below, provides a block schematic diagram of an ad hoc wireless communications network, including wireless communications devices in accordance with an aspect of the invention. Ex. 1005 ¶ 13.

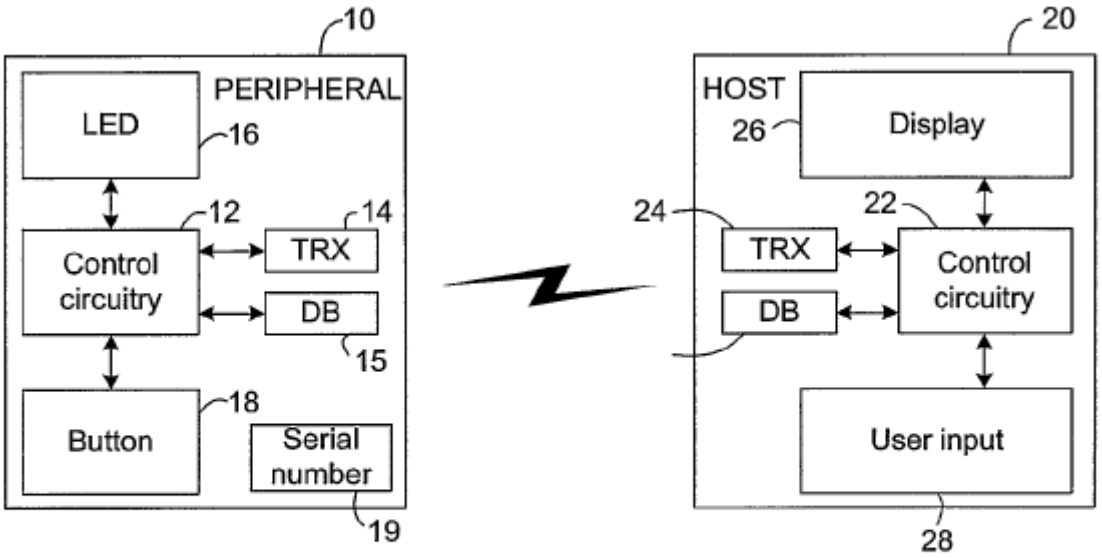

FIG. 1

Figure 1 shows a first electronic device 10, regarded as a "peripheral device," which "may be a portable memory device, a mobile telephone handsfree kit or a wireless network access point (such as a Wi-Fi Access Point)," and a second electronic device 20, regarded as a "host device," which "may be a camera, mobile telephone or personal computer." Ex. 1005 ¶ 22. The peripheral device 10 has control circuitry 12 "connected to transceiver (TRX) circuitry 14, which handles radio frequency communications with other electronic devices able to use the same wireless

protocol." *Id.* ¶ 24. The host device 20 also has control circuitry 22 "connected to transceiver (TRX) circuitry 24, which handles radio frequency communications with other electronic devices able to use the same wireless protocol." *Id.* ¶ 28. According to Vauclair, "the ad hoc wireless network is formed by allowing the first device 10 and the second device 20 to communicate according to the Wireless USB (Universal Serial Bus) (WUSB) protocol" or "any wireless or wired protocol, for example such as the IEEE 802.15 and the IEEE 802.11 standard series, Bluetooth, Zigbee, Ethernet or IP." *Id.* ¶ 22.

Vauclair also describes methods for pairing a "trusted" peripheral device 10 and a "trusted" host device 20, wherein "[t]he host and peripheral devices are considered to be 'trusted' if, for example, the user owns the host or peripheral device, and these are the devices that the user wishes to pair together." Ex. 1005 ¶ 31; *see also id.* ¶¶ 32–34, Figures 2–7. These methods "provide a means by which the user can verify that the first device with which the second device is communicating is indeed the 'trusted' device and vice versa." *Id.* ¶ 33.

3. Discussion

a. Claim 1

We determine that Petitioner has failed to meet its burden to show a reasonable likelihood that Kalayjian and Vauclair would have rendered claim 1 obvious. This determination is based on the evidence and argument presented for limitations 1(a)(i) and 1(a)(ii), so we solely address issues relating to these limitations below.

Limitation 1(a), in conjunction with limitation 1(a)(i), recites "a graphical user interface" "that generates a pairing signal in response to a first

indication from a user to pair the wireless device to at least one remote device." Ex. 1001, 36:26–37. Limitation 1(a), in conjunction with limitation 1(a)(ii), recites "a graphical user interface" "that generates a first location request signal in response to a second indication from a user to locate the at least one remote device." *Id.* at 36:26–31.

Petitioner asserts that the combination of Kalayjian and Vauclair teaches both limitation 1(a)(i) and limitation 1(a)(ii). Pet. 18–29. For limitation 1(a)(i), Petitioner argues that Kalayjian expressly teaches pairing of its wireless device with second devices using a Bluetooth protocol. Pet. 18. Petitioner contends that Vauclair discloses specific details regarding the pairing process. *Id.*

Petitioner refers to Figure 1 of Vauclair, reproduced above in the description of Vauclair. Pet. 19. Petitioner identifies display 26 as the "graphical user interface" "because it presents 'detailed message, or menu options, to the user' and allows for the user to interface with the display via the user input 28." *Id.* at 20 (citing Ex. 1005 ¶ 30; Ex. 1003 ¶ 141).

Petitioner asserts that in Vauclair, "[f]ollowing user selection of the pairing option from the menu via user input 28, Vauclair teaches a signal is sent to the control circuitry to initiate the pairing process comprising a pairing sequence." Pet. 20 (citing Ex. 1005 ¶¶ 30, 37–49; Ex. 1003 ¶ 144). In particular, Petitioner cites to paragraph 30 of Vauclair, contending that it describes "how user input 28 'allow[s] the user to select from available menu options, to send a signal to the control circuitry 22.'" *Id.* (emphasis omitted). Petitioner then argues that:

> Reading these collective teachings of Vauclair, a POSITA [person of ordinary skill in the art] would have understood that Vauclair teaches (1) user selection of a pairing option at the GUI

> [graphical user interface] presented on the display, where the user selection of the pairing option initiates the pairing process (Vauclair [Ex. 1005], [0036]); and (2) selection of a menu option at the GUI presented on the display causes a signal to be sent to the control circuitry, where the control circuitry is a suitably programmed processor (Vauclair [Ex. 1005], [0030], [0028]). Dec. [Ex. 1003], ¶¶ 142, 145. Vauclair thus teaches a graphical user interface that generates a pairing signal. *Id*.

Pet. 21. In further support, Dr. Buehrer testifies that "Vauclair teaches the user input 28 may be a keypad or scroll buttons allowing the user to 'select from available menu options,' where the menu options are presented on the display." Ex. 1003 ¶ 141. Dr. Buehrer also testifies that because Vauclair discloses that "user input 28 . . . allow[s] the user to select from available menu options, to send a signal to the control circuitry," it therefore:

> teaches generating a signal (i.e., the signal sent to the control circuitry responsive to the user selection of a menu option), where the signal is generated by the graphical user interface (i.e., the signal is generated at the GUI because the signal is responsive to user selection of the pairing option displayed on the GUI).

Ex. 1003 ¶ 142 (emphasis omitted).

Claim 1 requires that it is the "graphical user interface" that "generates a pairing signal." Paragraph 30 of Vauclair states that

> The second electronic device[9] is also provided with user input 28, which may for example include a keypad, and one or more scroll buttons, allowing the user to select from available menu options, to send a signal to the control circuitry 22.

Ex. 1005 ¶ 30.

[9] Petitioner maps the claimed wireless device for locating the remote object to Vauclair's second electronic device. *See* Pet. 19; Ex. 1003 ¶¶ 139–140.

The Petition does not present sufficient evidence that the prior art teaches that it is a graphical user interface that generates a pairing signal as recited in limitation 1(a)(i). Petitioner relies only on Vauclair for teaching the generation of a pairing signal by the graphical user interface. Pet. 18–21. Petitioner asserts that display 26 of Vauclair is the "graphical user interface," which is a separate component from user input 28 in Vauclair. Pet. 20; Ex. 1005 ¶ 30, Fig. 1. Vauclair discloses that its display 26 can present menu options, but does not disclose anything more than that it is the action of user input that selects and sends a signal. Ex. 1005 ¶ 30. More specifically, Petitioner relies on paragraph 30 of Vauclair, reproduced above, for "send[ing] a signal." The clauses in that paragraph, i.e, "which may . . . include . . ." and "allowing the user to select . . ." explain "user input 28," but identify that it is the user input that sends a signal to the control circuitry.

Further, merely presenting menu options on the display of Vauclair, even with an option selected by a user input of a number for a menu item on a display or by user input using a scroll bar to navigate and make a selection of a menu item on a display, does not teach or suggest that it is the display (graphical user interface) that generates a signal. Petitioner argues otherwise, relying on the view of a person of ordinary skill alleged to have understood that Vauclair teaches user selection of a pairing option presented on the display, where the user selection of the pairing option initiates the pairing process and causes a signal to be sent to the control circuitry. Pet. 21. In support, Dr. Buehrer testifies that "the signal is generated by the graphical user interface (i.e., the signal is generated at the GUI because the signal is responsive to user selection of the pairing option displayed on the GUI)." Ex. 1003 ¶ 142. We find that this testimony is conclusory because

there is no explanation of why the presentation of menu options on the display in Vauclair with selection by user input teaches that it is the display (graphical user interface) that generates the signal. Instead, as discussed above, the evidence supports that it is user input 28 that "send[s] a signal to the control circuitry 22."

Petitioner identifies that the "graphical display on screen 316" of Kalayjian is the claimed "graphical user interface." Pet. 17–18 (citing Ex. 1006 ¶¶ 40, 33, 47–48, Fig. 6–8; Ex. 1003 ¶¶ 132–135). For the teaching of limitation 1(a)(ii), which recites a graphical user interface "generat[ing] a first location request signal," Petitioner identifies Kalayjian's teaching of "graphical button 740" which displays "LOCATE THIS DEVICE." *Id*. at 25 (citing Ex. 1006 ¶ 48, Fig. 7; Ex. 1003 ¶¶ 152–153). Dr. Buehrer testifies that a person of ordinary skill in the art would have understood "that the user selecting the 'LOCATE THIS DEVICE' button would have generated a first location request because the subsequent steps in the location discovery process comprise sending signals to the slave device to locate the selected slave device." Ex. 1003 ¶ 154.

Petitioner argues that "Vauclair teaches the well-known concept of a GUI that generates a . . . signal in response to user selection at the GUI." Pet. 26 (citing Ex. 1003 ¶ 156; claim 1(a)(i) discussion). Petitioner contends that "Vauclair teaches user input 28 'allow[s] the user to select from available menu options, to send a signal to the control circuitry 22[,]'" and therefore "Vauclair teaches a graphical user interface that generates a . . . signal in response to user input." *Id*. at 26 (citing Ex. 1005 ¶¶ 28, 30; Ex. 1003 ¶ 156–157). In support, Dr. Buehrer testifies that "[b]ecause display 26 'displays menu options' and Vauclair teaches that the user input 28

allows selecting from such 'menu options,' on the display, a POSITA would have understood that the user input would cause the display to generate and send a signal to the control circuitry based on such user input." Ex. 1003 ¶ 157.

The Petition does not present sufficient evidence that the prior art teaches that it is a graphical user interface that generates a first location request signal of limitation 1(a)(ii). For the teaching of this limitation, Petitioner relies on the same evidence for Vauclair's alleged teaching of a signal generated by the graphical user interface as that relied upon for limitation 1(a)(i). *Compare* Pet. 19–21 *with id*. at 26. We find that Petitioner has not sufficiently demonstrated that Vauclair teaches signal generation by the graphical user interface for the reasons discussed above for limitation 1(a)(i).

Although it appears that Petitioner is relying upon Vauclair for the teaching of the generation of a first location request signal by the graphical user interface, we also do not find that Petitioner sufficiently demonstrates that Kalayjian teaches this limitation to the extent that Petitioner is making this argument. Petitioner maps the graphical user interface of the claim to the screen in Kalayjian's mobile device. Pet. 17–18 (elements 316, 616, 716, and 816 of Figures 3a and 6–8, respectively). Paragraph 48 of Kalayjian describes screen graphics, including a "graphical button," that "enable[s] the user to prompt master device 700 to locate the selected slave device." Ex. 1006 ¶ 48. Dr. Buehrer testifies that "[t]he selection of graphical button 740 is to locate the at least one remote device because this selection causes the master device to signal the slave device for locating the slave device." Ex. 1003 ¶ 153. The evidence thus provides support that a

prompt is generated by the selection of the "LOCATE" graphical button that is sent to the master device, and this causes actions by the master device to locate a slave device. But, there is no explanation provided by Petitioner as to the how the "graphical button" is selected or the nature of the prompt signal to support that it is the graphical user interface that generates the first location request signal. Again, for instance, similar to the discussion on Vauclair, it appears that it is the selection of a displayed menu option that generates a prompt, but Petitioner does not identify how the graphical button is selected.

Accordingly, Petitioner has not met its burden to demonstrate a reasonable likelihood that it would prevail in showing that claim 1 would have been obvious over Kalayjian and Vauclair.

b. Dependent Claims 2–9 and 11

Petitioner argues that dependent claims 2–9 and 11 would have been obvious over the combination of Kalayjian and Vauclair, with and without other references. Pet. 49–72.

Because claims 2–9 and 11 depend directly or indirectly from claim 1, and because Petitioner's arguments and evidence for the dependent claims do not cure the shortcomings as to claim 1, the showing for the dependent claims is also deficient.

Accordingly, Petitioner has not met its burden to demonstrate a reasonable likelihood that it would prevail in showing that claims 2–9 and 11 would have been obvious over the combination of Kalayjian and Vauclair, with and without other references.

III. CONCLUSION

For the foregoing reasons, we conclude that the information presented in the Petition fails to establish a reasonable likelihood that Petitioner would prevail in showing that at least one claim of the '381 patent is unpatentable. Accordingly, we do not institute *inter partes* review.

IV. ORDER

Accordingly, it is:

ORDERED that, pursuant to 35 U.S.C. § 314(a), *inter partes* review is *denied*.

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