

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Jeffrey C. Hawkins, et al.
U.S. Patent No.: 9,203,940 Attorney Docket No.: 39521-0049IP2
Issue Date: December 1, 2015
Appl. Serial No.: 13/117,729
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Title: INTEGRATED PERSONAL DIGITAL ASSISTANT
DEVICE

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**PETITION FOR *INTER PARTES* REVIEW OF UNITED STATES PATENT
NO. 9,203,940 PURSUANT TO 35 U.S.C. §§ 311–319, 37 C.F.R. § 42**

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EXHIBITS

APPLE-1001	U.S. Patent No. 9,203,940 to Hawkins, et al. (“the ’940 patent”)
APPLE-1002	Excerpts from the Prosecution History of the ’940 Patent (“the Prosecution History”)
APPLE-1003	Reserved
APPLE-1004	<i>Curriculum Vitae</i> of Dr. Brad Myers
APPLE-1005	Reserved
APPLE-1006	Reserved
APPLE-1007	U.S. Pub. No. 2006/0095849 to Vertaschitsch et al. (“Vertaschitsch”)
APPLE-1008 to APPLE-1011	Reserved
APPLE-1012	U.S. Patent No. 5,642,413 to Little (“Little”)
APPLE-1013 to APPLE-1016	Reserved
APPLE-1017	U.S. Patent No. 6,453,169 to Maloney (“Maloney”)
APPLE-1018	U.S. Patent No. 6,426,736 to Ishihara (“Ishihara”)
APPLE-1019	Reserved
APPLE-1020	U.S. Patent No. 6,253,075 to Beghtol <i>et al.</i> (“Beghtol”)
APPLE-1021	Declaration of Dr. Brad Myers

Apple Inc. (“Petitioner” or “Apple”) petitions for *inter partes* review (“IPR”) under 35 U.S.C. §§ 311–319 and 37 C.F.R. § 42 of claims 1-4, 6-15, and 17-22 (“the Challenged Claims”) of U.S. Patent No. 9,203,940 (“the ’940 patent”). As explained in this petition, there exists a reasonable likelihood that Apple will prevail with respect to at least one of the Challenged Claims.

The Challenged Claims are unpatentable based on teachings set forth in at least the references presented in this petition. Apple respectfully submits that an IPR should be instituted, and that the Challenged Claims should be canceled as unpatentable.

I. SUMMARY OF THE ’940 PATENT

A. Brief Description

Generally, the ’940 patent purportedly provides an integrated device having the functionality of both a PDA and a cellular telephone. APPLE-1001, Abstract. In particular, the ’940 patent describes that the integrated device includes “a power button offering control of both the computing and telephony functions of the device.” *Id.* The ’940 patent describes that “pressing the power button 110 when there is an incoming call silences the ring or vibrate” and “if the device is off when a call comes in, the device is turned on, and the backlight is illuminated.” *Id.*, 4:6-13.

The ’940 patent includes 22 claims, of which claims 1 and 12 are

independent.

B. Summary of the Prosecution History of the '940 Patent

The '940 patent issued on December 1, 2015 from U.S. Patent Application No. 13/117,729 (“the '729 application”), which was filed on May 27, 2011 with one claim. *See* APPLE-1002. This application is a continuation of U.S. Patent Application Serial No. 12/163,948 filed on June 27, 2008 (now U.S. Patent No. 8,224,379); which is a continuation of U.S. Patent Application Serial No. 09/976,475 filed on October 12, 2001 (now U.S. Patent No. 7,395,089), which claims priority to U.S. Provisional Application Serial No. 60/297,817 filed on June 11, 2001 (now expired). Thus, the earliest priority date proclaimed by the '940 patent is June 11, 2001 (hereinafter the “Critical Date”).

After multiple rounds of Office Actions and amendments to the claims, the Patent Office ultimately allowed the application with reference to the single power button to (1) “silence a ring” and (2) “activate a backlight of the display” limitations of the claimed method and device. *See* APPLE-1002, pp. 10-16. As described in detail below, these claim limitations, and the other limitations recited in the claims of '940 patent, are taught by the references cited herein.

II. REQUIREMENTS FOR IPR UNDER 37 C.F.R. § 42.104

A. Grounds for Standing Under 37 C.F.R. § 42.104(a)

Apple certifies that the '940 Patent is available for IPR. The present petition is being filed within one year of service of a complaint against Apple in the

Southern District of California. Apple is not barred or estopped from requesting this review challenging the Challenged Claims on the below-identified grounds.

B. Challenge Under 37 C.F.R. § 42.104(b) and Relief Requested

Apple requests an IPR of the Challenged Claims on the grounds set forth in the table shown below, and requests that each of the Challenged Claims be found unpatentable. An explanation of how these claims are unpatentable under the statutory grounds identified below is provided in the form of detailed description and claim charts that follow, indicating where each element can be found in the cited prior art, and the relevance of that prior art. Additional explanation and support for each ground of rejection is set forth in Exhibit APPLE-1021, the Declaration of Dr. Brad Myers, referenced throughout this Petition.

Ground	'940 Patent Claims	Basis for Rejection
Ground 2-A	1-4, 6, 8-9, 12-15, 17, 19-20	Obvious over Maloney in view of Beghtol and Ishihara
Ground 2-B	7, 18	Obvious over Maloney, Beghtol, and Ishihara in view of Vertaschitsch
Ground 2-C	10, 11, 21, 22	Obvious over Maloney, Beghtol, and Ishihara in view of Little

Maloney (U.S. Patent No. 6,453,169) (APPLE-1017) qualifies as prior art at least under 35 U.S.C § 102(e). Specifically, Maloney is a U.S. patent that was filed on February 8, 1997, more than four years before the Critical Date of the '940

patent. Thus, Maloney is prior art to the '940 patent, at least, under 35 U.S.C. § 102(e).

Maloney and the '940 patent are both assigned to Patent Owner ("Qualcomm Incorporated"). *See* APPLE-1001, Face; APPLE-1017, Face. Nevertheless, Maloney cannot be disqualified under the "common ownership" provision of 35 U.S.C. § 103(c), as § 103(c) only applies to references with filing dates after November 29, 1999. *See* MPEP 706.02; 35 U.S.C. § 103(c). Maloney was filed February 28, 1997 (before the effective date of the statute), and thus 35 U.S.C. § 103(c) is not applicable.

Beghtol (U.S. Patent No. 6,253,075) (APPLE-1020) qualifies as prior art under 35 U.S.C § 102(e). Specifically, Beghtol is a U.S. patent that was filed on December 18, 1998, more than a year before the Critical Date. Therefore, Beghtol is prior art to the '940 patent, at least under 35 U.S.C. § 102(e).

Ishihara (U.S. Patent No. 6,426,736) (APPLE-1018) qualifies as prior art under 35 U.S.C § 102(e). Specifically, Ishihara is a U.S. patent that was filed on December 23, 1999, more than a year before the Critical Date. Therefore, Ishihara is prior art to the '940 patent, at least under 35 U.S.C. § 102(e).

Vertaschitsch (U.S. Pub. No. 2006/0095849) (APPLE-1007) qualifies as prior art at least under 35 U.S.C § 102(e). Specifically, Vertaschitsch is a continuation of patent application Ser. No. 09/687,987, which was filed on Oct. 13,

2000, more than 8 months before the Critical Date. Therefore, Vertaschitsch is prior art to the '940 patent, at least under 35 U.S.C. § 102(e).

Vertaschitsch was cited during the prosecution of the '940 patent. *See* APPLE-1002, pp. 80-84. The Examiner rejected all pending claims first over the combination of Vertaschitsch and Lee (*see id.*, 80), and subsequently over the combination of Vertaschitsch, Lee, and Mitchell (*see id.*, 44). The present Petition presents Vertaschitsch as part of a combination (Maloney, Beghtol, Ishihara, and Vertaschitsch) that includes completely different references than the combinations used in prosecution. *See id.*, pp. 44, 80; Section III.B, *infra*. In addition, the present Petition applies Vertaschitsch as a secondary reference, rather as a primary reference as the reference was used in prosecution. *See* APPLE-1002, pp. 44, 80. Further, Vertaschitsch is applied herein to dependent claim features that Patent Owner did not specifically argue during prosecution. *See id.*, pp. 37-38, 67-74. Petition thus does not rely upon Vertaschitsch for the features deemed allowable by the Office during prosecution; Vertaschitsch and its associated arguments do not represent “substantially the same prior art or arguments previously” presented during prosecution of the '940 patent. 35 U.S.C. § 325(d).

Little (U.S. Patent No. 5,642,413) (APPLE-1012) qualifies as prior art under 35 U.S.C § 102(b). Specifically, Little is a U.S. patent that issued on June 24, 1997, more than three years before the Critical Date. Therefore, Little is prior art

to the '940 patent, at least under 35 U.S.C. § 102(b).

C. Level of Ordinary Skill in the Art

A person of ordinary skill in the art as of the Critical Date of the '940 patent (hereinafter a "POSITA") would have had a Master of Science Degree in an academic area emphasizing electrical engineering, computer science, or an equivalent field (or a similar technical Master's Degree, or higher degree) with a concentration in mobile computing and user interface design. Alternatively, a POSITA would have had a Bachelor's Degree (or higher degree) in an academic area emphasizing electrical engineering, or computer science and having two or more years of experience in mobile computing and user interface design. Additional education in a relevant field, such as computer science, or electrical engineering, or industry experience may compensate for a deficit in one of the other aspects of the requirements stated above. APPLE-1021, ¶10.

D. Claim Construction under 37 C.F.R. §§ 42.104(b)(3)

Petitioner submits that all terms should be given their plain meaning, but reserves the right to respond to any constructions that may later be offered by the Patent Owner or adopted by the Board. Petitioner is not waiving any arguments concerning indefiniteness or claim scope that may be raised in litigation.

III. THE CHALLENGED CLAIMS ARE UNPATENTABLE

The sections below detail how the combinations of references provide every limitation of the Challenged Claims, thereby rendering at least claims 1-4, 6-15,

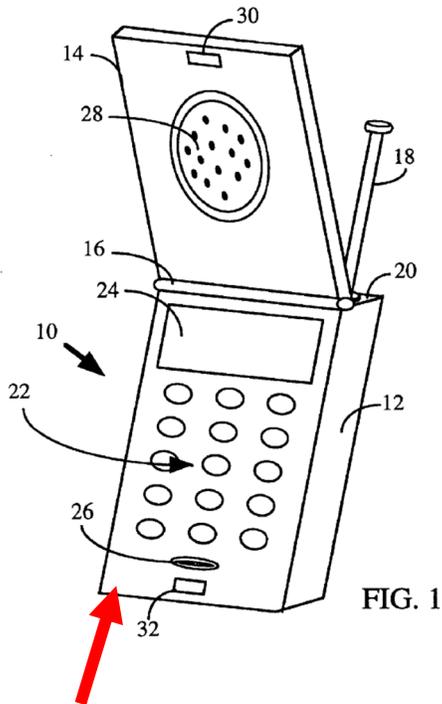
and 17-22 of the '940 patent unpatentable. The present Petition thus shows a reasonable likelihood that at least one claim of the '940 patent is unpatentable.

A. Ground 2-A – Claims 1-4, 6, 8-9, 12-15, 17, and 19-20 are obvious over Maloney in view of Beghtol and Ishihara

1. Overview of Maloney¹

Maloney, entitled “Portable Radiotelephone with Multiple Function Power Key,” generally “relates to portable communication devices such as wireless telephones.” APPLE-1017, 1:7-8. Maloney describes that the device includes a “display” (*id.* at 3:49), “a power key 40 in the surface 20 of the handset” (4:36), an “RF transceiver circuit[]” or radio for communicating with a cellular network (5:1-2), and “one or more, appropriately programmed microprocessors” for operating the device (5:10-11). Maloney teaches that a user can depress the power key “for a short period of time [to] silence an[] incoming call alert,” and can depress the power key “for a longer period of time [to] turn the communication device on or off.” *Id.* at Abstract; *see also* 2:40-49, 6:31-64, FIG. 9. FIGS. 1 and 4 from Maloney show the described communication device (10) including the multifunction power key (40):

¹ Petitioner hereby expressly incorporates the entirety of the following discussions of Maloney, Beghtol, Ishihara, and the combination in Sections 1-4 into the element-by-element analysis of each of Grounds 2-A through 2-C, *infra*.



Communications device (10)

APPLE-1017, FIG. 1

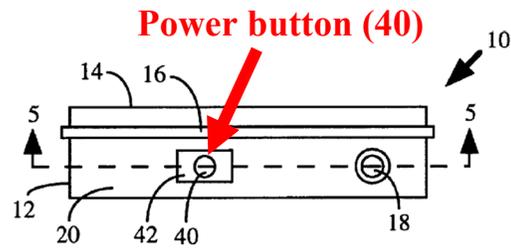


FIG. 4

APPLE-1017, FIG. 4 (annotated)

2. Overview of Beghtol

Beghtol, entitled “Method and Apparatus for Incoming Call Rejection,” “relates generally to call processing techniques in cellular telecommunications systems.” APPLE-1020, 1:15-16. Beghtol teaches a “mobile communications device” that operates “within a cellular telecommunications system.” APPLE-1020, 1:18-20. The mobile communications device includes a “display 110.” *Id.* at 4:55-57. Beghtol teaches that, in response to an incoming call, the device “displays the incoming call identification information,” such as caller ID information, “on display 110” of the mobile computing device. *Id.* at 6:25-27,

7:24-26; *see also* 2:21-23, 9:32-34, 10:63-65. Beghtol teaches that displaying the identification information “allow[s] the mobile phone user to determine who is calling before the call is answered.” *Id.* at 2:21-23. “If the mobile phone user decides not to receive calls from specific callers, the identification information can be viewed, and if desired, the incoming call can be left unanswered for the entire ringing cycle.” *Id.* at 2:24-26. Such functionality provides the user with greater control over which incoming callers they speak to. APPLE-1021, ¶57; *see id.* at 2:21-26. This greater control may allow the user to avoid unwanted interactions, such as interactions with callers the user knows intend to harass them, or unimportant interactions during times in which the user is busy. APPLE-1021, ¶57; *see id.* at 2:21-26.

Beghtol indicates that its described techniques are broadly applicable to mobile phones because they utilize “identification information” (e.g., “caller ID”) that is available in the new call signaling in “[t]ypical ... wireless communications systems.” APPLE-1020, 1:30-2:27; APPLE-1021, ¶58.

3. Overview of Ishihara

Ishihara teaches that “[i]n a conventional portable telephone, the backlight or illumination light ... is lit up for a predetermined period of time only when the user presses any key.” APPLE-1018, 1:12-15; *see also* 3:18-22, 4:26-48. Ishihara describes that this functionality allows the user to “use the portable telephone in a

dark place,” where “the display portion of the portable telephone cannot be seen due to the ambient darkness.” *Id.* at 1:15-18. Ishihara describes these techniques as broadly applicable to “conventional portable telephone[s].” APPLE-1021, ¶59; *see* APPLE-1018, 1:12-15.

4. The combination of Maloney, Beghtol, and Ishihara

As previously discussed, Maloney describes a communication device, such as a “wireless telephone[,]” that includes a “display.” APPLE-1017, 1:7-8, 3:49. In the combination, the communication device incorporates the technique described in Beghtol, such that the communication device “displays the incoming call identification information,” such as caller ID information, on a “display” of the communication device. APPLE-1020, 6:25-27, 7:24-26; *see also* 2:21-23, 9:32-34, 10:63-65; APPLE-1021, ¶ 60. Also in the combination, the communication device incorporates the “backlight” component and associated functionality described in Ishihara into the display of the communication device, such that “the backlight is lit by any key-in operation on the operation unit 14.” APPLE-1018, 4:46-48; APPLE-1021, ¶ 60.

Further details regarding the combined teachings of Maloney, Beghtol, and Ishihara, including various additional reasons why a POSITA would have implemented such a combination, are provided in the following element-by-element analysis.

5. Reasons to combine Maloney, Beghtol, and Ishihara

A POSITA would have modified the communication device of Maloney to present a notification including identification information for an incoming call on its display when the incoming call is received, as taught by Beghtol, to, for example, allow the user of the communication device “to determine who is calling before the call is answered.” *See* APPLE-1020, 2:21-23. A POSITA would have been motivated to include this functionality, e.g., to allow users to selectively answer calls only from callers to whom they wish to speak, thereby allowing the user to avoid wasting time speaking to callers to whom they do not wish to speak. *See id.* at 2:19-27; APPLE-1021, ¶ 61. The result of the combination would have been predictable to a POSITA; indeed, Beghtol describes such a device. *See* APPLE-1020, 1:18-20, 2:19-27, 4:55-57, 6:25-27, 7:24-26, 9:32-34, 10:63-65; APPLE-1021, ¶ 61. This prior art teaching is congruent with the proposed combination, and thus would have rendered the combination predictable to a POSITA. APPLE-1021, ¶61; *see Agrizap, Inc. v. Woodstream Corp.*, 520 F. 3d 1337, 1344 (Fed. Cir. 2008) (finding that a teaching of a component used the same way as proposed in a combination rendered the combination predictable) (citing *KSR Intern. Co. v. Teleflex Inc.*, KSR, 127 S.Ct. 1727, 1739 (2007)).

In addition, a POSITA would have modified the communication device to include a backlight and to illuminate the backlight in response to a key press,

according to the teachings of Ishihara, in order to allow the display of the communication device to be seen by a user in a dark environment, which would allow the device “to be immediately operated even in a dark place” and thus “improve operability.” APPLE-1018, 1:16-18, 1:60-63; APPLE-1021, ¶ 62. The result of the combination would have been predictable to a POSITA, in part because Ishihara teaches that conventional mobile phones included a backlight prior to the Critical Date, and that such phones included the feature of illuminating the backlight “when the user presses any key.” APPLE-1018, 1:12-15; APPLE-1021, ¶ 62. This prior art teaching is congruent with the proposed combination, and thus renders the combination predictable to a POSITA. APPLE-1021, ¶62; *see Agrizap*, 520 F. 3d at 1344 (citing *KSR*, 127 S.Ct. at 1739).

6. Application of the combination to the implicated claims

Claim 1

[1pre] “A method for operating a mobile computing device including”

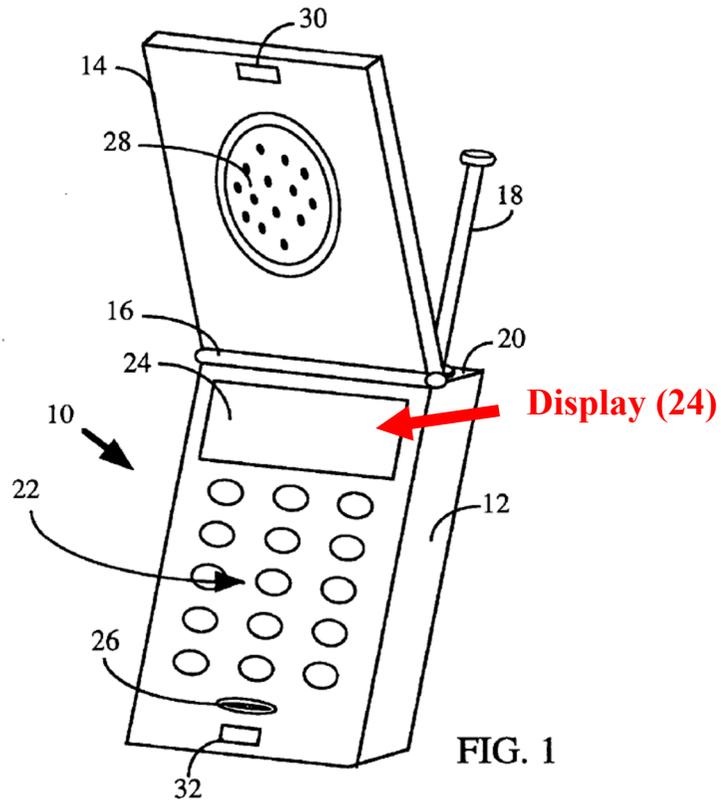
As described above, the combination of Maloney, Beghtol, and Ishihara provides a method for operating a mobile computing device. In particular, the combination integrates teachings of Maloney such as its “methods for operating communication devices” including “a novel and improved portable communication device having an exposed and multifunctional power on/off key.” APPLE-1017, 2:32-33, 1:7-10 (emphasis added). The combination also incorporates Maloney’s

teaching that the portable communication device includes a “microprocessor or microcontroller,” thereby indicating that the portable communication device is a computing device. *Id.* at 9:30-31; APPLE-1021, ¶ 42.

Accordingly, the method of operating a portable communication device having a multifunction power key, yielded through the combination of Maloney, Beghtol, and Ishihara, renders obvious a “method for operating a mobile computing device” as recited.

[1a] “a display”

The combination of Maloney, Beghtol, and Ishihara provides a mobile communication device including a display. In particular, the combination integrates Maloney’s teaching that “a communication device” such as a “wireless telephone handset 10” including a “display 24.” APPLE-1017, 3:35-49 (emphasis added). FIG. 1 from Maloney shows the wireless telephone handset 10 including the display 24:



APPLE-1017, FIG. 1 (annotated)

Accordingly, the wireless telephone handset including a display, yielded by the combination of Maloney, Beghtol, and Ishihara, renders obvious that the mobile communication device includes “a display” as recited in the claim.

[1b] “a power button”

The combination of Maloney, Beghtol, and Ishihara provides that the mobile communication device includes a power button. In particular, the combination integrates Maloney’s teaching that the communication device “include[s] a power key 40 in the surface 20 of the handset.” APPLE-1017, 4:36 (emphasis added).

FIG. 4 from Maloney illustrates a top view of the device shown above in FIG. 1

(*id.* at 4:34-35) that shows the power key 40:

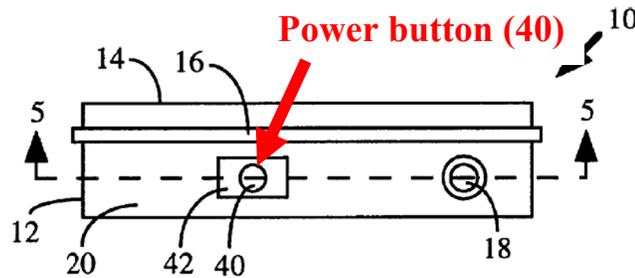


FIG. 4

APPLE-1017, FIG. 4 (annotated)

Accordingly, the communication device including a power key yielded by the combination of Maloney, Beghtol, and Ishihara renders obvious that the mobile communication device includes “a power button” as recited in the claim.

[1c] “a radio”

The combination of Maloney, Beghtol, and Ishihara provides that the mobile communication device includes a radio. In particular, the combination incorporates Maloney’s teaching of a “portable radiotelephone with multiple function power key.” APPLE-1017, Title (emphasis added). The combination also integrates Maloney’s teaching that the mobile communication device includes “one or more RF transceiver circuits 62 that drive the antenna 18.” *Id.* at 5:1-2; FIG. 6. A POSITA would have understood an RF or “radio frequency” transceiver, such as the one taught by Maloney, to be a radio. APPLE-1021, ¶ 48; *see* APPLE-1017, 5:1-2.

Accordingly, the mobile communication device that includes one or more RF transceiver circuits yielded by the combination of Maloney, Beghtol, and Ishihara renders obvious that the mobile communication device includes “a radio” as recited in the claim.

[1d] “one or more processors, the method performed by the one or more processors of the mobile computing device”

The combination of Maloney, Beghtol, and Ishihara provides one or more processors performing a method of operating a mobile computing device. In particular, the combination integrates Maloney’s teaching that its method for operating the mobile computing device can “be implemented as part of the program controlling a microprocessor or microcontroller in the handset[.]” APPLE-1017, 9:29-33 (emphasis added).

Accordingly, the microprocessor in the mobile computing device used to implement the described method, yielded by the combination of Maloney, Beghtol, and Ishihara, renders obvious “one or more processors, the method performed by the one or more processors of the mobile computing device” as recited in the claim.

[1e] “when a telephone call is being received by the mobile computing device, presenting a notification on the display indicating the telephone call; and”

The combination of Maloney, Beghtol, and Ishihara provides presenting a notification on the display indicating the telephone call when a telephone call is

being received by the mobile computing device. In particular, the combination integrates Maloney's teaching that the mobile computing device "provide[s] an incoming call alarm to a user if the handset is powered on when an incoming call is received." APPLE-1017, 6:37-38 (emphasis added). The combination also incorporates Maloney's teaching that the incoming call alarm is provided by "a call alarm circuit 62, which alerts the user to an incoming telephone call via an audible, visual, or tactile signal as are known in the art." *Id.* at 5:4-6 (emphasis added).

In addition, the combination integrates the similar teaching of Beghtol that a "mobile communications device" that operates "within a cellular telecommunications system." APPLE-1020, 1:18-20. The mobile communications device includes a "display 110." *Id.* at 4:55-57. The combination further incorporates Beghtol's teaching that, in response to an incoming call, the device "displays the incoming call identification information," such as caller ID information, "on display 110" of the mobile computing device. *Id.* at 6:25-27, 7:24-26; see also 2:21-23, 9:32-34, 10:63-65. The combination also integrates Beghtol's teaching that displaying the identification information "allow[s] the mobile phone user to determine who is calling before the call is answered." *Id.* at 2:21-23.

Accordingly, providing a visual indication on the display when a call is

received by a communication device, yielded by the combination of Maloney, Beghtol, and Ishihara, renders obvious “when a telephone call is being received by the mobile computing device, presenting a notification on the display indicating the telephone call” as recited in the claim.

[1f] “enabling a user to silence a ring associated with the telephone call by pressing the power button without turning off the mobile computing device; and”

The combination of Maloney, Beghtol, and Ishihara provides enabling a user to silence a ring associated with the telephone call by pressing the power button without turning off the mobile computing device. In particular, the combination incorporates Maloney’s teaching that “depression of the power key for a short period of time may silence an[] incoming call alert, whereas depression of the power key for a longer period of time will turn the communication device on or off.” APPLE-1017, Abstract (emphasis added); *see also* 2:40-49, 6:31-64, FIG. 9. Maloney describes that when the power button is pressed and released, the communication device “determines the time of power key depression” and “compares the time of power key depression with a first pre-determined time T1.” *Id.* at 6:39-43. Maloney teaches that “if the time of power switch depression is greater than T1” and “[i]f there is an incoming call, the alert feature of the handset will have been activated, and at step 98 the handset will silence the alert.” *Id.* at 6:46-50 (emphasis added). However, if the duration of the power button press is

greater than a “second predetermined time T2” the communication device “powers off.” *Id.* at 6:53-50. Maloney teaches that “[i]n this way, a single key,” the power button, “performs both an incoming call alert silencing function and a power off function.” *Id.* at 6:58-61. Accordingly, Maloney teaches, and the combination thus provides, that pressing the power button for a particular duration (e.g., greater than T1, but less than T2) will silence the alert (ring) associated with an incoming call without powering off the communication device. *See id.* at 2:40-49, 6:31-64, FIG. 9; APPLE-1021, ¶ 52.

Thus, the communication device allowing a user to press a power key for a particular duration to silence a call alert without powering off the device, yielded by the combination of Maloney, Beghtol, and Ishihara, renders obvious “enabling a user to silence a ring associated with the telephone call by pressing the power button without turning off the mobile computing device” as recited in the claim.

[1g] “when the telephone call is not being received by the mobile computing device, enabling the user to activate a backlight of the display by pressing the power button.”

The combination of Maloney, Beghtol, and Ishihara provides when the telephone call is not being received by the mobile computing device, enabling the user to activate a backlight of the display by pressing the power button. As described above, the combination integrates Maloney’s teaching that “if the time of power switch depression is greater than T1” and “[i]f there is an incoming call, the

alert feature of the handset will have been activated, and at step 98 the handset will silence the alert.” *Id.* at 6:46-50 (emphasis added). Maloney therefore teaches, and the combination thus provides, that the function of silencing the ring is conditioned on whether a telephone call is presently being received, and that if the communication device is not receiving a telephone call, the action of silencing the ring will not be taken (*e.g.*, because the ring will not be occurring if no incoming call is received). APPLE-1021, ¶ 52; *see* APPLE-1017, 6:31-64.

Also integrated in the combination is Ishihara’s teaching that “[i]n a conventional portable telephone, the backlight or illumination light ... is lit up for a predetermined period of time only when the user presses any key.” APPLE-1018, 1:12-15; *see also* 3:18-22, 4:26-48. The combination also incorporates Ishihara’s teaching that the portable telephone includes an “LCD (Liquid Crystal Display) unit 13,” an “operation unit 14” (*e.g.*, a keypad, *see* FIG. 2A) and a “backlight 20” that “illuminates the back surface of the LCD unit 13.” APPLE-1018, 3:18-22. Ishihara describes that the portable telephone “the backlight” of the portable telephone “is lit by any key-in operation on the operation unit 14.” *Id.* at 4:46-48 (emphasis added).

It would have been obvious to a POSITA to modify the communication device of Maloney to include the backlight taught in Ishihara, and to configure the backlight to illuminate the display of the communication device, as also taught by

Ishihara. APPLE-1021, ¶ 62; *see* APPLE-1018, 3:18-22. Further, it would have been obvious to a POSITA to modify the method of Maloney to turn on the backlight in response to depression of the power button (a key press) when no incoming call has been received. APPLE-1021, ¶ 60; *see* APPLE-1018, 4:46-48. As described above, Ishihara teaches illuminating the backlight in response to “when the user presses any key,” which a POSITA would have understood to include the user pressing the power button of Maloney (a key). APPLE-1021, ¶ 60; *see* APPLE-1018, 1:12-15, 3:18-22.

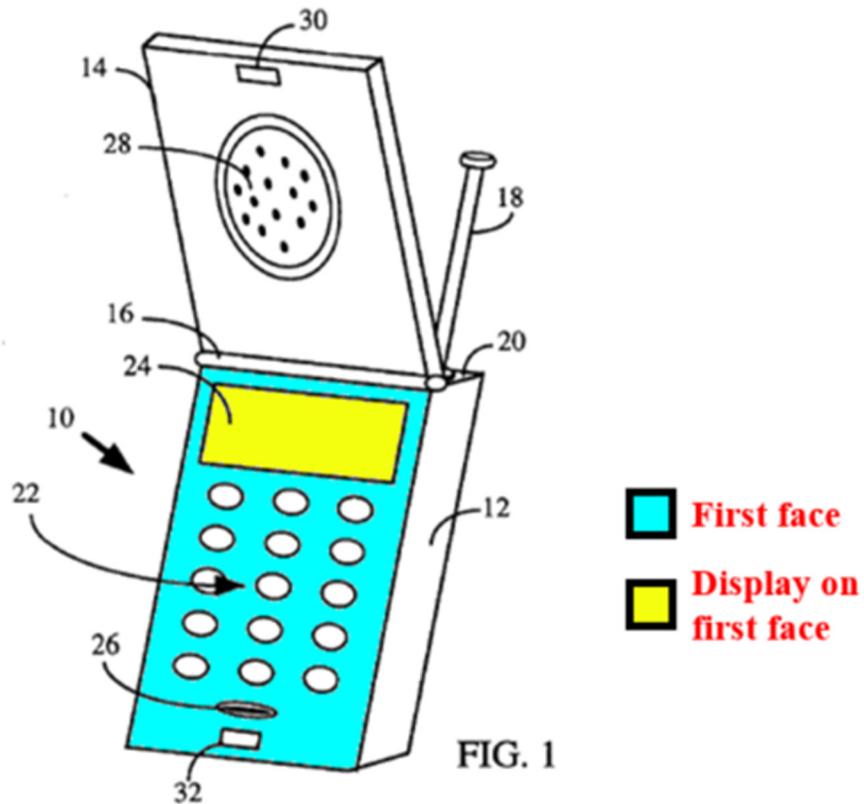
Accordingly, illuminating a backlight of a display in response to a power button depression when a new call has not been received, yielded by the combination of Maloney, Beghtol, and Ishihara, renders obvious “when the telephone call is not being received by the mobile computing device, enabling the user to activate a backlight of the display by pressing the power button” as recited in the claim.

Claim 2

[2a] “The method of claim 1, wherein the display is located on a first face of the mobile computing device, and the power button is located on a second face of the mobile computing device, wherein the first face is different than the second face.”

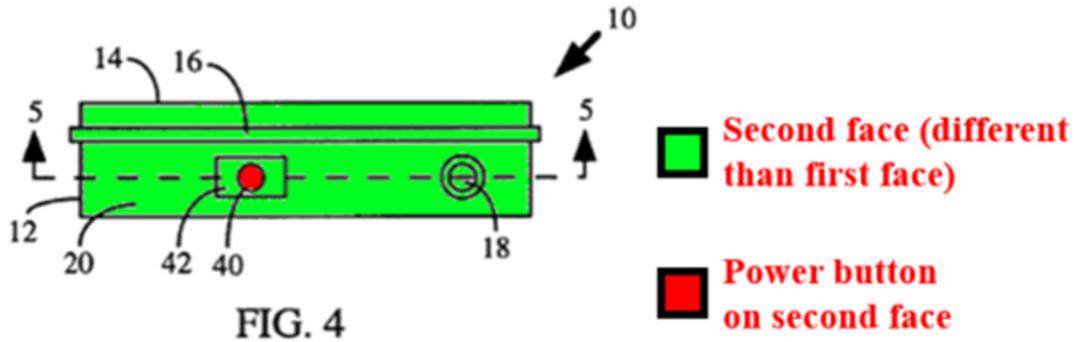
The combination of Maloney, Beghtol, and Ishihara renders this claim limitation obvious. As previously discussed, in the combination, Maloney teaches a communication device including a display (*see* [1a], *supra*) and a power button

(see [1b], *supra*). Maloney teaches that the display is located on a first face of the device, as shown in FIG. 1:



APPLE-1017, FIG. 1 (annotated)

In addition, Maloney teaches that the power button is located on a second face of the device that is different than the first face, as shown in the top view of the device from FIG. 4:



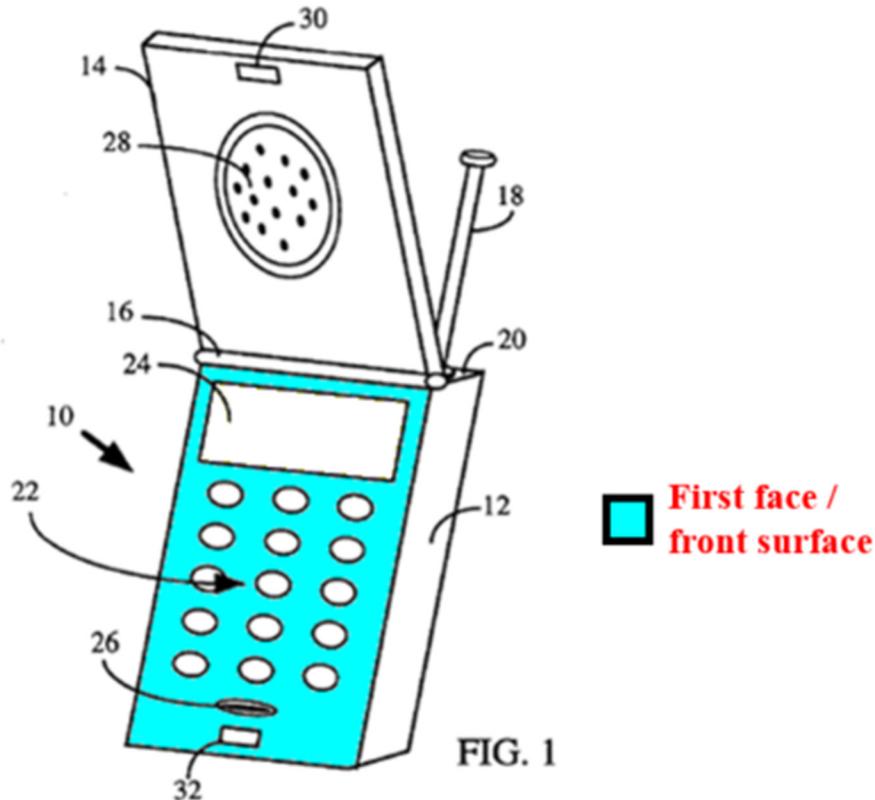
APPLE-1017, FIG. 4 (annotated)

Accordingly, the combination of Maloney, Beghtol, and Ishihara renders obvious “the display is located on a first face of the mobile computing device, and the power button is located on a second face of the mobile computing device, wherein the first face is different than the second face” as recited in the claim.

Claim 3

[3a] “The method of claim 1, wherein the first face is a front surface of the mobile computing device.”

The combination of Maloney, Beghtol, and Ishihara renders this claim limitation obvious. As previously discussed, in the combination, Maloney teaches a communication device having a first face including a display. *See* [2a], *supra*. Maloney teaches that the communication device has a “front surface having a user interface” including the display and the keypad of the device. APPLE-1017, 2:50-53 (emphasis added). As shown in FIG. 1, the first face is a front surface of the device; indeed, the first face includes the display and the keys, and thus will be facing towards the user while the device is in use. APPLE-1021, ¶46:



APPLE-1017, FIG. 1 (annotated)

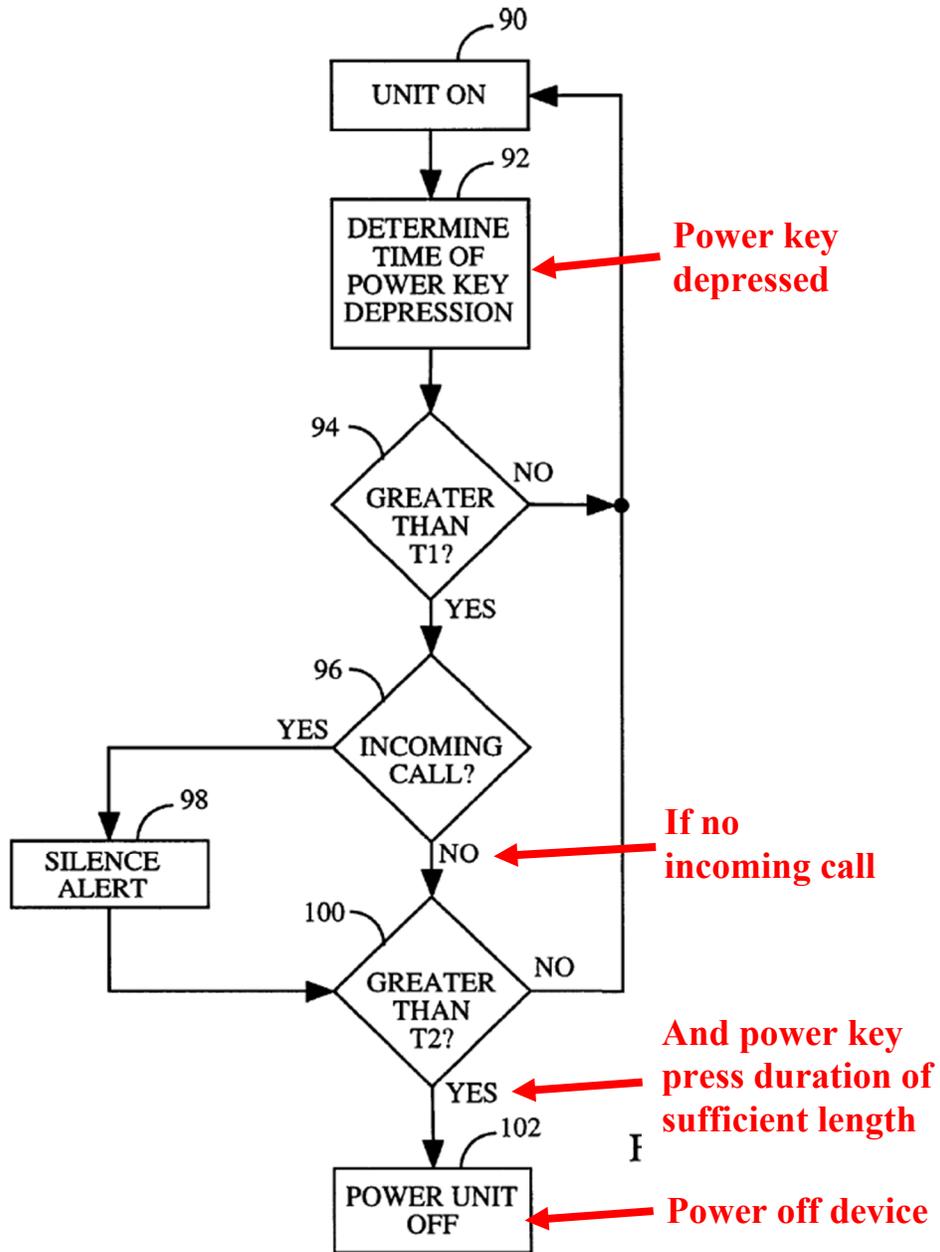
Accordingly, the combination of Maloney, Beghtol, and Ishihara, renders obvious that “the first face is a front surface of the mobile computing device” as recited in the claim.

Claim 4

[4a] “The method of claim 1, further comprising: when the telephone call is not being received by the mobile computing device, enabling the user to power off the mobile computing device by pressing the power button.”

The combination of Maloney, Beghtol, and Ishihara renders this claim limitation obvious. In particular, the combination integrates Maloney’s teaching

that “depression of the power key for a short period of time may silence an[]
incoming call alert, whereas depression of the power key for a longer period of
time will turn the communication device on or off.” APPLE-1017, Abstract
(emphasis added); *see also* 2:40-49, 6:31-64, FIG. 9. FIG. 9 from Maloney shows
this process:



APPLE-1017, Detail of FIG. 9 (annotated)

Accordingly, the combination of Maloney, Beghtol, and Ishihara renders obvious “when the telephone call is not being received by the mobile computing device, enabling the user to power off the mobile computing device by pressing the

power button” as recited in the claim.

Claim 6

[6a] “The method of claim 1, further comprising: when the telephone call is not being received by the mobile computing device, enabling the user to toggle the radio on and off by pressing the power button for a duration of time.”

The combination of Maloney, Beghtol, and Ishihara renders this claim limitation obvious. In particular, the combination incorporates Maloney’s teaching that “depression of the power key for a short period of time may silence an[] incoming call alert, whereas depression of the power key for a longer period of time will turn the communication device on or off.” APPLE-1017, Abstract (emphasis added); *see also* 2:40-49, 6:31-64, FIG. 9. The combination also integrates Maloney’s teaching that “[t]he ‘off’ state as used herein may also be termed a ‘sleep’ mode, in that the RF transceiver circuitry 62, keypad 22, and many other circuit components are not powered in this state[.]” *Id.*, 6:7-10 (emphasis added). Maloney teaches that the power button can be used to toggle the device between the “on state,” where the RF transceiver circuitry (the radio) is powered or “on,” and the “off state,” where the RF transceiver circuitry (the radio) is not powered or “off.” *See* APPLE-1017, 6:7-10, FIGS. 8 and 9; APPLE-1021, ¶ 49.

Accordingly, the combination of Maloney, Beghtol, and Ishihara renders obvious “when the telephone call is not being received by the mobile computing device, enabling the user to toggle the radio on and off by pressing the power

button for a duration of time” as recited in the claim.

Claim 8

[8a] “The method of claim 1, wherein the mobile computing device comprises two housing segments and operates in either a first state or a second state depending on a position of the two housing segments.”

The combination of Maloney, Beghtol, and Ishihara renders this claim limitation obvious. In particular, the combination integrates Maloney’s teaching that the communication device “may comprise a body portion 12 and a flip portion 14 ... coupled by a hinge 16.” APPLE-1017, 3:50-53 (emphasis added). Maloney describes that the body portion and the flip portion may be manipulated into two states: “open or closed.” *Id.*, 7:51-54 (emphasis added). FIG. 1 of Maloney shows the communication device in the “open” state, and FIG. 3 shows the communication device in the “closed” state:

Maloney teaches that “if the actuator is closed” as shown in FIG. 3, longer presses of the power button are required to initiate the described functions than “if the actuator is open” as shown in FIG. 1. *See id.* at 7:57-8:28 (using shorter “pre-determined time periods” (T4 through T6) when the actuator is “open,” and longer “pre-determined time periods” (T1 through T3) when the actuator is “closed.”); *see also* FIG. 10.

Accordingly, the combination of Maloney, Beghtol, and Ishihara, renders obvious “the mobile computing device comprises two housing segments and operates in either a first state or a second state depending on a position of the two housing segments” as recited in the claim.

Claim 9

[9a] “The method of claim 8, wherein the user is enabled to silence the ring by pressing the power button when the mobile computing device is operating in either the first state or the second state.”

The combination of Maloney, Beghtol, and Ishihara renders this claim limitation obvious. In particular, the combination integrates Maloney’s teaching that silencing the ring in response to a depression of the power button when the device is closed (*see id.* at 7:57-66) and when the device is open (*see id.* at 8:6-13). APPLE-1021, ¶ 56; *see* [8a], *supra*. Maloney teaches that the “the delay times” for determining whether the power button has been pressed “are greater when the actuator is closed, and therefore when the handset is likely being stored away in a

pocket or holster.” *Id.* at 8:14-28; *see also* 8:30-61.

Accordingly, the combination of Maloney, Beghtol, and Ishihara renders obvious “the user is enabled to silence the ring by pressing the power button when the mobile computing device is operating in either the first state or the second state” as recited in the claim.

Claim 12

[12pre] “A mobile computing device, comprising:”

See [1pre], *supra*.

[12a] “a radio;”

See [1c], *supra*.

[12b] “a display;”

See [1a], *supra*.

[12c] “a power button;”

See [1b], *supra*.

[12d] “a processor; and”

See [1d], *supra*.

[12e] “a memory storing instructions that, when executed by the processor, cause the mobile computing device to:”

The combination integrates Maloney’s teaching that the communications device includes a “control circuit” that implements the operations of the device.

APPLE-1017, 4:59-63; APPLE-1021, ¶ 43. Maloney teaches that the control

circuit “interfaces with a memory” and includes “one or more, appropriately programmed microprocessors or microcontrollers.” APPLE-1017, 4:59-63, 5:7-12, FIG. 6. Maloney states that “those of skill in the art will be readily able to design hardware and associated programming to implement” the method described therein. *Id.* at 5:20-23. A POSITA would understand that the programming instructions implementing the control circuit would be stored in the memory. *See id.* at 4:59-63, 5:7-12; Dec., ¶ 43. Accordingly, the combination of Maloney, Beghtol, and Ishihara renders obvious “a memory storing instructions that, when executed by the processor, cause the mobile computing device to” perform the recited method.

[12f] “when a telephone call is being received by the mobile computing device, present a notification on the display indicating the telephone call; and”

See [1e], supra.

[12g] “enable a user to silence a ring associated with the telephone call by pressing the power button without turning off the mobile computing device; and”

See [1f], supra.

[12h] “when the telephone call is not being received by the mobile computing device, enable the user to activate a backlight of the display by pressing the power button.”

See [1g], supra.

Claim 13

[13a] “The mobile computing device of claim 12, wherein the display is located on a first face of the mobile computing device, the power button is located on a second face of the mobile computing device, wherein the first face is different than the second face.”

See [2a], supra.

Claim 14

[14pre] “The mobile computing device of claim 13, wherein the first face is a front surface of the mobile computing device.”

See [3a], supra.

Claim 15

[15a] “The mobile computing device of claim 12, wherein execution of the instructions causes the mobile computing device to: enable the user to power off the mobile computing device by pressing the power button when the telephone call is not being received by the mobile computing device.”

See [4a], supra.

Claim 17

[17a]: “The mobile computing device of claim 12, wherein execution of the instructions causes the mobile computing device to: enable the user to toggle the radio on and off by pressing the power button for a duration of time when the telephone call is not being received the mobile computing device.”

See [6a], supra.

Claim 19

[19a] “The mobile computing device of claim 12, wherein the mobile computing device further comprises two housing segments and operates in either a first state or a second state depending on a position of the two housing segments.”

See [8a], supra.

Claim 20

[20a] “The mobile computing device of claim 19, wherein execution of the instructions enables the user to silence the ring by pressing the power button when the mobile computing device is operating in either the first state or the second state.”

See [9a], supra.

B. Ground 2-B – Claims 7 and 18 is obvious over Maloney, Beghtol, and Ishihara in view of Vertaschitsch

1. Overview of Vertaschitsch²

Vertaschitsch “relates generally to user interfaces.” APPLE-1007, ¶3. In particular, Vertaschitsch teaches a “phone device” including “[a] display screen 230 is provided (preferably a touch sensitive screen) for display of Operating System prompts, buttons, icons, application screens, and other data, and for providing user inputs via tapping or touching ... via a stylus or other touch mechanism.” APPLE-1007, ¶ 28 (emphasis added). Vertaschitsch further teaches “a method for the user to answer [an] incoming call” by “tapping on a phone icon” on the display screen. APPLE-1007, ¶ 31 (emphasis added).

2. The combination of Maloney, Beghtol, Ishihara, and Vertaschitsch

As previously discussed, the combination of Maloney, Beghtol, and Ishihara

² Petitioner hereby expressly incorporates the entirety of the discussions of Vertaschitsch and the combination in Sections 1 and 2 into the element-by-element analysis of Ground 2-B.

describes a communication device, such as a “wireless telephone[],” that includes a “display.” APPLE-1017, 1:7-8, 3:49. In the present combination, the communication device of Maloney, Beghtol, and Ishihara incorporates the technique described in Vertaschitsch, such that a user of the communication device can “answer [an] incoming call” by “tapping on a phone icon” on the display of the device. APPLE-1007, ¶ 31.

Further details regarding the combined teachings of Maloney, Beghtol, Ishihara, and Vertaschitsch, including various additional reasons why a POSITA would have implemented such a combination, are provided in the following element-by-element analysis.

3. Reasons to combine Maloney, Beghtol, Ishihara, and Vertaschitsch

A POSITA would have modified the communication device of Maloney, Beghtol, and Ishihara to allow an icon on a screen to be selected to answer a call, as taught by Vertaschitsch, *e.g.*, to enable access to the full set of features of Maloney’s communication device when utilizing a touch screen interface. Maloney describes that the communication device’s “keypad 22 may also be another type of user interface such as a touch- sensitive screen or other user-interface as is known in the art.” APPLE-1017, 3:50-53 (emphasis added). Maloney, however, omits details regarding the particularity of how various functions of the device, such as answering a call, would be performed on the touch

screen. Vertaschitsch describes such details, availing the POSITA to functionality and motivating the POSITA to modify Maloney's touch screen according to Vertaschitsch's teachings to implement the features described in Vertaschitsch, such as answering a call, on its touch screen. APPLE-1021, ¶ 65. The result of the combination would have been predictable to a POSITA, for example, because Vertaschitsch teaches a communication device implemented in the manner proposed. APPLE-1012, 3:63-4:21; APPLE-1021, ¶ 65. This prior art teaching is congruent with the proposed combination, and thus would have rendered the combination predictable to a POSITA. APPLE-1021, ¶65; *see Agrizap*, 520 F.3d at 1344 (*citing KSR*, 127 S.Ct. at 1739).

4. Application of the combination to the implicated claims

Claim 7

[7a] “The method of claim 1, further comprising: enabling the user to answer the telephone call by selecting an icon presented on the display.”

The combination of Maloney, Beghtol, Ishihara, and Vertaschitsch renders this claim limitation obvious. In particular, the combination incorporates Vertaschitsch's teaching that a “phone device” including “[a] display screen 230 is provided (preferably a touch sensitive screen) for display of Operating System prompts, buttons, icons, application screens, and other data, and for providing user inputs via tapping or touching ... via a stylus or other touch mechanism.” APPLE-1007, ¶ 28 (emphasis added). Vertaschitsch further teaches “a method for the user

to answer [an] incoming call” by “tapping on a phone icon” on the display screen.

APPLE-1007, ¶ 31 (emphasis added).

Accordingly, the combination of Maloney, Beghtol, Ishihara, and Vertaschitsch renders obvious “enabling the user to answer the telephone call by selecting an icon presented on the display” as recited in the claim.

Claim 18

[18a] “The mobile computing device of claim 12, wherein execution of the instructions causes the mobile computing device to: enable the user to answer the telephone call by selecting an icon presented on the display.”

See [7a], supra.

C. Ground 2-C – Claims 10, 11, 21, and 22 are obvious over Maloney, Beghtol, and Ishihara in view of Little

1. Overview of Little³

Little, entitled “Telephone call alert device with selectable alert modes,” generally “relates to call annunciation devices and more particularly pertains to a cordless telephone vibration alert device for silently alerting an individual to a call on a cordless telephone.” APPLE-1012, p. 1, Abstract. Little teaches “a switch positionable in series electrical communication between a ring circuit power source and an audible ringer of the telephone or a vibration assembly coupled to the

³ Petitioner hereby expressly incorporates the entirety of the discussions of Little and the combination in Sections 1 and 2 into the element-by-element analysis of Ground 2-C.

switch.” *Id.* Little explains that “[v]ia the switch, either one of the audible ringer and vibration assembly can be selected to alert the individual to a call or the ring circuit power source can be left absent a load.” *Id.* (emphasis added); APPLE-1021, ¶ 66.

2. The combination of Maloney, Beghtol, Ishihara, and Little

As previously discussed, the combination of Maloney, Beghtol, and Ishihara provides a communication device, such as a “wireless telephone[,]” that “alerts the user to an incoming telephone call via an audible, visual, or tactile signal” (i.e., a vibration). APPLE-1017, 1:7-8, 5:5-7. In the present combination, the communication device incorporates the technique described in Little, such that the communication device incorporates a switch for controlling alert behavior, as generally suggested by Little. APPLE-1012, p. 1, Abstract.

Further details regarding the combined teachings of Maloney, Beghtol, Ishihara, and Little, including various additional reasons why a POSITA would have implemented such a combination, are provided in the following element-by-element analysis.

3. Reasons to combine Maloney, Beghtol, Ishihara, and Little

A POSITA would have modified the communication device to include the ringer switch taught by Little to change the alert type of the communication device

to one that is appropriate for the device's current state. APPLE-1012, 3:63-4:21; APPLE-1021, ¶ 70. Maloney recognizes the need to adjust the operation of the communication device based on whether the device is being actively used by the user or if the device is instead "being stored away in a pocket or holster." APPLE-1017, 8:14-28; APPLE-1021, ¶ 70. Little furthers this goal from Maloney by allowing a user to "selectively manually operate[]" the ringer switch to adjust the device's alert behavior from audible ringing to vibration, thereby allowing the user to manually select the appropriate alert behavior for the device's current state. APPLE-1012, 4:23-26; APPLE-1021, ¶ 70. A POSITA thus would have been motivated to incorporate the ringer switch of Little into the communication device of Maloney to improve the operation of the communication device by providing the user with this ability to manually select the appropriate alert behavior. APPLE-1021, ¶ 70. The result of the combination would have been predictable to a POSITA, for example, because Little teaches a communication device including a ringer switch that allows a user to adjust the device's alert behavior. APPLE-1012, 3:44-4:55; APPLE-1021, ¶ 70. This prior art teaching is congruent with the proposed combination, and thus would have rendered the combination predictable to a POSITA. APPLE-1021, ¶70; *see Agrizap*, 520 F. 3d at 1344 (*citing KSR*, 127 S.Ct. at 1739).

4. Application of the combination to the implicated claims

Claim 10

[10a] “The method of claim 1, wherein the mobile computing device includes a ringer switch, the method further comprising:”

The combination of Maloney, Beghtol, Ishihara, and Little renders this claim limitation obvious. As previously discussed, the combination integrates Maloney’s teaching of a mobile computing device. *See* [1pre], *supra*. The combination also incorporates Little’s teaching of a “device for selectably providing an individual with different alert modes to a call on a telephone.” APPLE-1012, Abstract. In particular, the combination integrates Little’s teaching of “a switch positionable in series electrical communication between a ring circuit power source and an audible ringer of the telephone or a vibration assembly coupled to the switch.” *Id.* Little states that “[v]ia the switch, either one of the audible ringer and vibration assembly can be selected to alert the individual to a call or the ring circuit power source can be left absent a load,” and therefore disabled. *Id.*; APPLE-1021, ¶ 66. The switch of Little therefore allows the selection between the audible ringer and the vibration assembly, thereby teaching a “ringer switch.”

Accordingly, the combination of Maloney, Beghtol, Ishihara, and Little renders obvious “the mobile computing device includes a ringer switch” as recited in the claim.

[10b] “generating the ring when the telephone call is being received and the ringer switch is in a first state”

The combination of Maloney, Beghtol, Ishihara, and Little renders this claim

limitation obvious. As previously discussed (*see* [10a], *supra*), the combination incorporates Little's teaching that a "device for selectably providing an individual with different alert modes to a call on a telephone." APPLE-1012, Abstract. In particular, Little teaches a ringer switch "positionable in series electrical communication between a ring circuit power source and an audible ringer of the telephone or a vibration assembly coupled to the switch." *Id.* Little states that via the ringer switch "either one of the audible ringer and vibration assembly can be selected to alert the individual to a call[.]" *Id.*; APPLE-1021, ¶ 66. Specifically, Little teaches that the ringer switch "can be switched into a first orientation to couple the ringing power wire to the ring circuit power source," thereby causing the device to generate an audible ring upon receipt of an incoming call. *See* APPLE-1012, claim 1, 4:6-26; APPLE-1021, ¶ 67.

Accordingly, the combination of Maloney, Beghtol, Ishihara, and Little renders obvious "generating the ring when the telephone call is being received and the ringer switch is in a first state" as recited in the claim.

[10c] "vibrating the mobile computing device when the telephone call is being received and the ringer switch is in a second state."

The combination of Maloney, Beghtol, Ishihara, and Little renders this claim limitation obvious. As previously discussed (*see* [10a], *supra*), the combination integrates Little's teaching that a "device for selectably providing an individual with different alert modes to a call on a telephone." APPLE-1012, Abstract. In

particular, Little teaches a ringer switch "positionable in series electrical communication between a ring circuit power source and an audible ringer of the telephone or a vibration assembly coupled to the switch." *Id.* Little states that via the ringer switch "either one of the audible ringer and vibration assembly can be selected to alert the individual to a call[.]" *Id.*; APPLE-1021, ¶ 66. Specifically, Little teaches that the ringer switch "switched into a second orientation to leave the ringing power wire absent a load and to connect the ring circuit power source to [a] vibration means," thereby causing the device to "create vibration" upon receipt of an incoming call. *See* APPLE-1012, claim 1, 4:22-55; APPLE-1021, ¶ 67.

Accordingly, the combination of Maloney, Beghtol, Ishihara, and Little renders obvious "vibrating the mobile computing device when the telephone call is being received and the ringer switch is in a second state" as recited in the claim.

Claim 11

[11a] "The method of claim 10, wherein pressing the power button when the ringer switch is in the second state causes the mobile computing device to stop vibrating."

The combination of Maloney, Beghtol, Ishihara, and Little renders this claim limitation obvious. As previously discussed (*see* [10c], *supra*), the combination integrates Little's teaching that the mobile phone includes a ringer switch that causes the phone to alert the user to incoming calls by vibrating when it is in a second state. *See* APPLE-1012, claim 1, 4:22-55; APPLE-1021, ¶ 66. The combination also incorporates Maloney's teaching that the phone includes "a call

alarm circuit 62, which alerts the user to an incoming telephone call via an audible, visual, or tactile signal as are known in the art.” *Id.* at 5:4-6 (emphasis added); APPLE-1021, ¶ 50. As previously discussed, Maloney teaches pressing the power button to “silence” an “incoming call alert,” which can be a tactile signal (a vibration). APPLE-1017, 6:39-65 (emphasis added); *see* [1f], *supra*. A POSITA would understand that silencing a tactile signal would include causing the source of the signal to stop vibrating. APPLE-1021, ¶ 50.

Accordingly, the combination of Maloney, Beghtol, Ishihara, and Little renders obvious “pressing the power button when the ringer switch is in the second state causes the mobile computing device to stop vibrating” as recited in the claim.

Claim 21

[21a] “The mobile computing device of claim 12, wherein the mobile computing device includes a ringer switch, and”

See [10a], *supra*.

[21b] “wherein execution of the instructions causes the mobile computing device to: generate the ring when the telephone call is being received and the ringer switch is in a first state; and”

See [10b], *supra*.

[21c] “vibrate the mobile computing device when the telephone call is being received and the ringer switch is in a second state.”

See [10c], *supra*.

Claim 22

[22a] “The mobile computing device of claim 21, wherein pressing the power button when the ringer switch is in the second state causes the mobile computing device to stop vibrating.”

See [11a], *supra*.

IV. PAYMENT OF FEES – 37 C.F.R. § 42.103

Apple authorizes the Patent and Trademark Office to charge Deposit Account No. 06-1050 for the fee set in 37 C.F.R. § 42.15(a) for this Petition and further authorizes payment for any additional fees to be charged to this Deposit Account.

V. REDUNDANCY

Petitioner presents a total of two Grounds in the present Petition and a second petition (the “Second Petition”) being filed contemporaneously with the present Petition. Petitioner submits that the grounds presented in these petitions are not redundant. For example, claims 5 and 16 are not addressed by the Grounds in the present Petition. To the extent the Board finds a reasonable likelihood that Petitioner will prevail with regard to each ground on the merits, Petitioner requests that all grounds in both Petitions be considered as part of the resulting trial. Petitioner has made a sufficient threshold showing on each ground. For example, Petitioner provides distinct reasoning and expert testimony to support each presented ground. *See* Section III, *supra*. Accordingly, Petitioner respectfully submits that the grounds in the present Petition and the Second Petition should not be held redundant.

VI. CONCLUSION

The cited prior art references identified in this Petition contain pertinent technological teachings (both cited and uncited), either explicitly or inherently disclosed, which were not previously considered in the manner presented herein, or relied upon on the record during original examination of the '940 patent. In sum, these references provide new, non-cumulative technological teachings which indicate a reasonable likelihood of success as to Petitioner's assertion that the Challenged Claims of the '940 patent are not patentable pursuant to the grounds presented in this Petition. Accordingly, Petitioner respectfully requests institution of an IPR for those claims of the '940 patent for each of the grounds presented herein.

VII. MANDATORY NOTICES UNDER 37 C.F.R § 42.8(a)(1)

A. Real Party-In-Interest Under 37 C.F.R. § 42.8(b)(1)

Petitioner, Apple Inc., is the real party-in-interest.

B. Related Matters Under 37 C.F.R. § 42.8(b)(2)

Petitioner is not aware of any disclaimers, reexamination certificates or petitions for *inter partes* review for the '940 Patent. The '940 patent is the subject of the following civil action: *Qualcomm Incorporated v. Apple Inc.*, Case No. 3-17-cv-02403 (S.D. Cal. 2017).

C. Lead And Back-Up Counsel Under 37 C.F.R. § 42.8(b)(3)

Apple provides the following designation of counsel.

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D. Service Information

Please address all correspondence and service to the address listed above.

Petitioner consents to electronic service by email at IPR39521-0049IP2@fr.com

(referencing No. 39521-0049IP2 and cc'ing PTABInbound@fr.com, [\[ptab@fr.com\]\(mailto:ptab@fr.com\), \[rozylowicz@fr.com\]\(mailto:rozylowicz@fr.com\), and \[riffe@fr.com\]\(mailto:riffe@fr.com\).](mailto:axf-</p></div><div data-bbox=)

Respectfully submitted,

Dated June 21, 2018

/W. Karl Renner/
W. Karl Renner, Reg. No. 41,265

Dated June 21, 2018

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CERTIFICATION UNDER 37 CFR § 42.24

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Petition for *Inter partes* Review totals 8,683 words, which is less than the 14,000 allowed under 37 CFR § 42.24.

Dated June 21, 2018

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