

(43) International Publication Date
18 September 2014 (18.09.2014)

- (51) International Patent Classification:
H04L 12/66 (2006.01) *G06F 13/00* (2006.01)
- (21) International Application Number:
PCT/US2014/030870
- (22) International Filing Date:
17 March 2014 (17.03.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/802,344 15 March 2013 (15.03.2013) US
14/210,234 13 March 2014 (13.03.2014) US
- (71) Applicant (for all designated States except US): **ALIPH-COM** [US/US]; Third Floor, 99 Rhode Island Street, San Francisco, California 94103 (US).
- (72) Inventors; and
(71) Applicants : **LUNA, Michael Edward Smith** [US/US]; 519 Curie Drive, San Jose, California 95123 (US). **PANG, Hawk Yin** [GB/US]; 799 Pinewood Drive, San Jose, California 95129 (US).

(74) Agents: **KOKKA, Scott, S.** et al.; KOKKA & BACKUS, PC, 703 High Street, Palo Alto, California 94301 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: PROXIMITY SENSING DEVICE CONTROL ARCHITECTURE AND DATA COMMUNICATION PROTOCOL

(57) Abstract: Mobile device speaker control may include: monitoring one or more devices wirelessly coupled with a data network, receiving one or more data packets from each of the one or more devices, filtering received data packets by evaluating a received signal strength (e.g., RSSI) of the received packets, comparing the received signal strength of each of the received packets to a threshold to determine whether the one or more devices are to perform an action, and performing the action only if one or more indicia other than the received signal strength indicate a near field proximity within the threshold or a direct physical contact between a wireless device receiving the data packets and one of the one or more devices that is wirelessly transmitting the data packets.

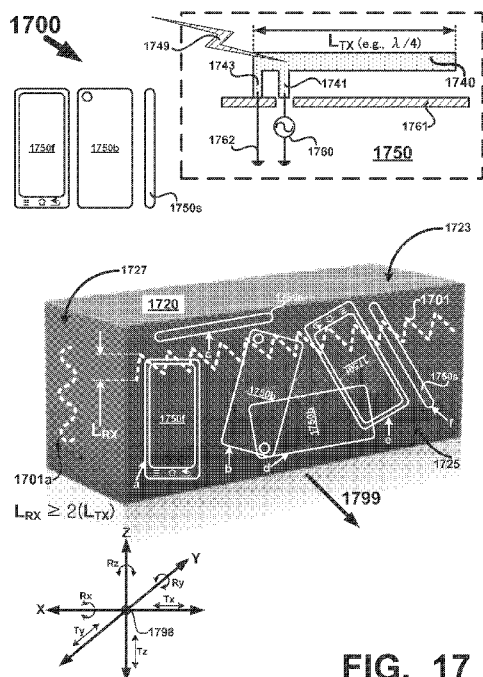


FIG. 17

**Published:****(88) Date of publication of the international search report:**

6 November 2014

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2014/030870

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - H04L 12/66 (2014.01) CPC - G06F 13/00 (2014.02) According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC(8) - A61B 5/024, G06F 19/00, 11/07, 3/00, 13/00, H04J 3/00, 1/16, H04L 12/66, H04Q 7/24, H04M 1/00, G06K 7/00 (2014.01) USPC -370/345, 351, 352, 406, 395.4, 235, 338, 714/3, 710/8, 305, 455/552.1 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched CPC - G06F 19/00, 11/07, 3/00, 13/00, H04J 3/00, 1/16, H04L 12/66, 12/56, H04M 1/00, G06K 7/00, 7/08 (2014.02) Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) POrbit, Google Patents, Google Scholar,		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011/0059768 A1 (PANDRUVADA) 10 March 2011 (10.03.2011) entire document	1, 4, 5, 7
Y		2, 3, 6, 8-20
Y	US 2007/0002742 A1 (KRISHNASWAMY et al.) 4 January 2007 (04.01.2007) entire document	2, 3, 6, 9, 10, 14-17
Y	US 2012/0083705 A1 (YUEN et al.) 5 April 2012 (05.04.2012) entire document	8, 11-13, 20
Y	EP 1 793 326 A2 (BAUER et al.) 9 January 2003 (09.01.2003) entire document	18, 19
A	US 2007/0116007 A1 (XIAO et al.) 24 May 2007 (24.05.2007) entire document	1-20
A	US 2008/0240078 A1 (THUBERT et al.) 2 October 2008 (02.10.2008) entire document	1-20
A	US 2008/0273518 A1 (PRATT et al.) 6 November 2008 (06.11.2008) entire document	1-20
A	US 2009/014456 A1 (GELF et al.) 4 June 2009 (04.06.2009) entire document	1-20
☐ Further documents are listed in the continuation of Box C. ☐		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 27 August 2014		Date of mailing of the international search report 16 SEP 2014
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: Blaine R. Copenheaver PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774