

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 December 2012 (13.12.2012)

(10) International Publication Number
WO 2012/170964 A3

(51) International Patent Classification:

A45C 11/00 (2006.01)

(21) International Application Number:

PCT/US20 12/041768

(22) International Filing Date:

8 June 2012 (08.06.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/495,848 10 June 2011 (10.06.2011) US

(71) Applicant (for all designated States except US): MOPH-IE, INC. [US/US]; 2850 Red Hill Ave Suite 128, Santa Ana, CA 92705 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): DANIEL, Huang [US/US]; 20 Buellton, Irvine, CA 92602 (US).

(74) Agent: SZE, James, Y., C ; Duane Morris, LLP, 750 B Street, Suite 2900, San Diego, CA 92101-4681 (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, 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, IS, JP, KE, KG, KM, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(88) Date of publication of the international search report: 11 July 2013

(54) Title: WIRELESS COMMUNICATION ACCESSORY FOR A MOBILE DEVICE

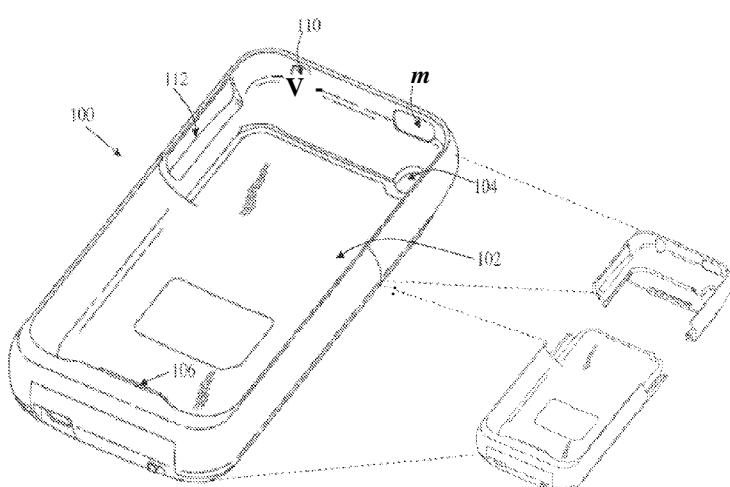


FIG. 1

(57) Abstract: A wireless communication accessory for a mobile communication device comprising: a casing that conforms, at least partially, to the outer shape of the mobile communication device; a processing circuit housed within the casing and configured to process a first data; and a wireless transmitter coupled to the processing circuit, where the transmitter is configured to transmit the first data. The wireless communication accessory may further comprise a wireless receiver that is configured to receive a second data from an external wireless device. The first data may be associated with any or all of the following: payment card information for processing purchase transactions; public transportation account information for processing travel credits on public transportation systems; and access card information for gaining access into restricted areas.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/041768

A. CLASSIFICATION OF SUBJECT MATTER

A45C 11/00(2006.01)i

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)

A45C 11/00; H04M 1/00; H01M 2/10; H04M 1/21; H05K 7/00; G06Q 20/28; H05K 5/00; H04B 1/38; G06F 1/16

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: wireless, mobile casing, nfc, interface, module, battery cell, processor, radio frequency, infrared, purchase transaction, payment, encrypt

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2009-0186264 A1 (HUANG, D.) 23 July 2009 See paragraphs [0007], [0010], [0052], [0073], [0081], [0084], figures 1, 3, 4, 17.	I-10,21,24-30,32
Y		II-15,17,20,22,23
A		16,18,19,31
Y	US 2009-0069050 A1 (JAIN, D. et al.) 12 March 2009 See paragraphs [0005], [0024]-[0027], [0034], [0035], [0038], [0045], [0052], claims 1, 5, 13, 22.	11-15,17,20,22,23
A		1-10,16,18,19,21,24-32
A	KR 20-2010-0005030 U (SOUNDWARE, CO., LTD.) 14 May 2010 See abstract, claims 1, 2, 5.	1-32
A	US 7612997 B1 (DIEBEL, M. et al.) 3 November 2009 See abstract, column 11, lines 43-64, column 12, lines 45-57, column 25, lines 44-54, claims 1, 7, 10, figures 1, 4, 8-10.	1-32
A	US 7336973 B2 (GOLDTHWAITE, S. et al.) 26 February 2008 See abstract, column 2, line 52- column 3, line 49, column 4, line 64 - column 5, line 7, claims 1-5, 17.	1-32

Further documents are listed in the continuation of Box C.

See patent family annex.

* 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 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

26 FEBRUARY 2013 (26.02.2013)

Date of mailing of the international search report

27 FEBRUARY 2013 (27.02.2013)

Name and mailing address of the ISA/KR



Facsimile No. 82-42-472-7140

Authorized officer

YANG, In Su

Telephone No. 82-42-481-8131



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2012/041768**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-2011-0005507 A (SK TELECOM CO. , LTD.) 18 January 2011 See abstract, claims 1-5.	1-32
A	US 2005-0286212 A1 (BRIGNONE, C. et al.) 29 December 2005 See abstract, claims 1, 3-5, 7, 8.	1-32

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/041768

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2009-0 186264 A1	23.07.2009	US 2011-0159324 A1 US 8367235 B2	30.06.2011 05.02.2013
US 2009-0069050 A1	12.03.2009	AT 519327 T AT 546947 T AU 2008-29858 1 A1 AU 2008-298677 A1 AU 2008-298886 A1 CA 2697759 A1 CA 2698417 A1 CA 2698684 A1 CA 2698885 A1 CA 2698890 A1 CA 2698891 A1 CA 2699448 A1 CA 2699456 A1 CA 2776046 A1 CN 10 1809633 A CN 10 1809977 A CN 10 1828205 A EP 2 196008 A1 EP 2 196008 B1 EP 2 196009 A1 EP 2 196009 B1 EP 2 1960 10 A2 EP 2 1960 10 B1 EP 220 1499 A1 EP 220 1540 A1 EP 220 1541 A1 EP 220 1542 A1 EP 220 1800 A2 EP 2483844 A1 EP 2483846 A1 JP 20 10-5398 13 A JP 20 10-5398 13 T JP 20 10-541036 A KR 10-20 10-0075497 A KR 10-20 10-008 13 17 A KR 10-20 12-00820 10 A MX 20 10002833 A MX 20 10002838 A US 2009-006557 1 A1 US 2009-0065572 A1 US 2009-0069049 A1 US 2009-0070272 A1 US 2009-007069 1 A1 US 2009-0108063 A1 US 2009-0199283 A1 US 2009-06905 1 A1	15.08.2011 15.03.2012 19.03.2009 19.03.2009 19.03.2009 19.03.2009 19.03.2009 19.03.2009 19.03.2009 19.03.2009 19.03.2009 19.03.2009 19.03.2009 19.03.2009 19.03.2009 07.04.2011 18.08.2010 18.08.2010 08.09.2010 16.06.2010 03.08.2011 16.06.2010 22.02.2012 16.06.2010 04.07.2012 30.06.2010 30.06.2010 30.06.2010 30.06.2010 30.06.2010 30.06.2010 08.08.2012 08.08.2012 16.12.2010 16.12.2010 24.12.2010 02.07.2010 14.07.2010 20.07.2012 02.06.2010 09.06.2010 12.03.2009 12.03.2009 12.03.2009 12.03.2009 12.03.2009 30.04.2009 06.08.2009 12.03.2009

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/041768

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		US 2009-069052 A1	12.03.2009
		US 2009-070861 A1	12.03.2009
		us 2010-0012721 A1	21.01.2010
		us 2010-0044444 A1	25.02.2010
		us 2010-0264211 A1	21.10.2010
		us 2011-0053560 A1	03.03.2011
		us 2011-0136539 A1	09.06.2011
		us 2011-177852 A1	21.07.2011
		us 2011-215159 A1	08.09.2011
		us 2012-0267437 A1	25.10.2012
		us 2012-051272 A1	01.03.2012
		us 7941197 B2	10.05.2011
		us 7942337 B2	17.05.2011
		us 8070057 B2	06.12.2011
		us 8109444 B2	07.02.2012
		Wo 2009-036141 A1	19.03.2009
		Wo 2009-036165 A1	19.03.2009
		wo 2009-036183 A1	19.03.2009
		wo 2009-036191 A2	19.03.2009
		wo 2009-036191 A3	11.03.2010
		wo 2009-036264 A1	19.03.2009
		wo 2009-036357 A2	19.03.2009
		wo 2009-036357 A3	18.06.2009
		wo 2009-036393 A1	19.03.2009
		wo 2009-036394 A1	19.03.2009
		wo 2009-036395 A1	19.03.2009
		wo 2011-037593 A1	31.03.2011
		wo 2011-040934 A1	07.04.2011
		wo 2011-140458 A2	10.11.2011
KR 20-2010-0005030 U	14.05.2010	None	
US 7612997 B1	03.11.2009	EP 2187601 A1	19.05.2010
		US 2010-0124040 A1	20.05.2010
		US 2010-0321871 A1	23.12.2010
		US 7782610 B2	24.08.2010
		US 7889498 B2	15.02.2011
US 7336973 B2	26.02.2008	AU 2003-245505 A1	16.02.2004
		AU 2003-288963 A1	07.06.2004
		AU 2003-288963 A8	07.06.2004
		CN 1860730 A	08.11.2006
		CN 1860730 B	16.06.2010
		EP 1563697 A2	17.08.2005
		EP 1563697 A4	05.07.2006
		EP 1604485 A1	14.12.2005
		EP 1604485 A4	29.10.2008
		EP 1604485 B1	05.10.2011
		US 2004-0019564 A1	29.01.2004
		US 2004-0087339 A1	06.05.2004

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/041768

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		us 2004-0127256 A1 us 2004-0176 134 A1 us 2004-018 1463 A1 us 2004-0230489 A1 us 7 188089 B2 us 7280847 B2 Wo 2004-012 118 A1 Wo 2004-043048 A2 wo 2004-043048 A3 wo 2004-086676 A1 wo 2004-088641 A2	01.07 ,2004 09.09 ,2004 16 .09 ,2004 18 . 11,2004 06 .03 ,2007 09 . 10 ,2007 05 .02 ,2004 21.05 ,2004 22 .07 ,2004 07 . 10 ,2004 14. 10 ,2004
KR 10-2011-0005507 A	18 .0 1.20 11	None	
us 2005-02862 12 A1	29 .12 .2005	EP 176 1838 A1 JP 2008-505394 A KR 10-2007-0022878 A wo 2006-004632 A1	14. 03 ,2007 21.02 ,2008 27 .02 ,2007 12 .0 1,2006