



(51) International Patent Classification:

H04B 1/40 (2006.01) *G06F 3/03* (2006.01)
G06F 3/041 (2006.01) *G06F 3/048* (2006.01)

(21) International Application Number:

PCT/KR2011/009850

(22) International Filing Date:

20 December 2011 (20.12.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10-2011-0011352 9 February 2011 (09.02.2011) KR

(71) Applicant (for all designated States except US): **SAM-SUNG ELECTRONICS CO., LTD.** [KR/KR]; 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-742 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KIM, Kyung Hwa** [KR/KR]; No. 508, Sinmyeong Skyview Members, 1338-25, Seocho-dong, Seocho-gu, Seoul 137-070 (KR). **SHIN,**

Dong Jun [KR/KR]; No. 102-205, Doosan Apt., Haengdang 1-dong, Seongdong-gu, Seoul 133-071 (KR). **KANG, Ji Young** [KR/KR]; No. 108-1303, Neulpureun Byoksan Apt., Mangpo-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-400 (KR).

(74) Agent: **YOON, Dong Yol**; Yoon & Lee International Patent & Law Firm, 3rd Fl, Ace Highend Tower-5, 505-18 Gasan-dong, Geumcheon-gu, Seoul 153-803 (KR).

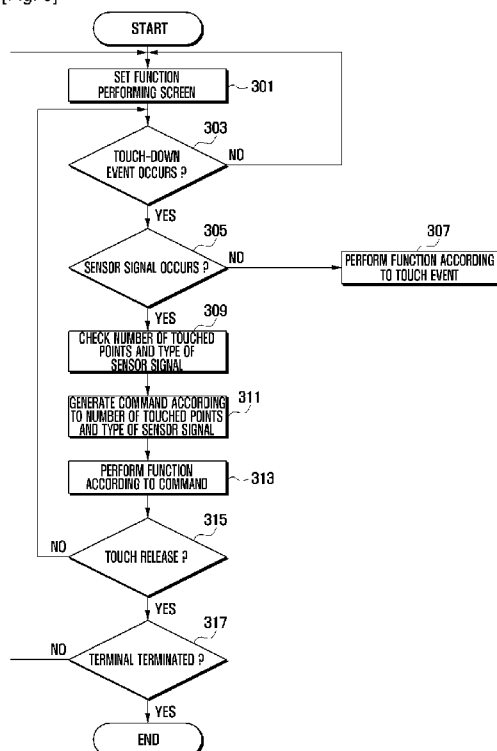
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, 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,

[Continued on next page]

(54) Title: OPERATING METHOD OF TERMINAL BASED ON MULTIPLE INPUTS AND PORTABLE TERMINAL SUPPORTING THE SAME

[Fig. 3]



(57) Abstract: An operating method of a terminal based on multiple inputs and a portable terminal supporting the same are disclosed. The operating method includes: receiving a sensor signal in a state that a touch-down event having at least one touch point is being maintained, generating respective distinct commands according to at least one of a number of touch points of the touch-down event, and a type and a form of the certain sensor signal, activating one of a user function or controlling an operation of a currently activated user function according to the generated commands; and controlling variation in a screen output on a display panel according to the activation or the control of the user function.



GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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).

— *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))*

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

4 October 2012

Published:

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

A. CLASSIFICATION OF SUBJECT MATTER***H04B 1/40(2006.01)i, G06F 3/041(2006.01)i, G06F 3/03(2006.01)i, G06F 3/048(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)

H04B 1/40; G06F 3/03; G06F 3/033; G06F 3/041

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: sensor, touch, input, generate

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KR 10-2011-0008940 A (LG ELECTRONICS INC.) 27 January 2011 See paragraphs [0057]-[0063], claims 1-5 and figure 4.	1-15
X	KR 10-2010-0006847 A (SAMSUNG ELECTRONICS CO., LTD.) 22 January 2010 See paragraphs [0116]-[0133],[0156]-[0160] and figures 9-12.	1-15
A	US 2010-0039394 A1 (MOUSSAVI FARSHID) 18 February 2010 See the abstract, claim 1 and figure 3.	1-15



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

30 JULY 2012 (30.07.2012)

Date of mailing of the international search report

30 JULY 2012 (30.07.2012)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan
City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

Bok, Sang Moon

Telephone No. 82-42-481-8345



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2011/009850

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR 10-2011-0008940 A	27.01.2011	KR 10-2011-0042634 A US 2011-0130170 A1	27.04.2011 02.06.2011
KR 10-2010-0006847 A	22.01.2010	EP 2144142 A2 US 2010-0007518 A1	13.01.2010 14.01.2010
US 2010-0039394 A1	18.02.2010	WO 2010-019240 A1	18.02.2010