(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 3 March 2005 (03.03.2005)

PCT

(10) International Publication Number WO 2005/019987 A3

(51) International Patent Classification: G09G 5/00 (2006.01)

(21) International Application Number:

PCT/US2004/025452

(22) International Filing Date: 6 August 2004 (06.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 10/643,256

18 August 2003 (18.08.2003)

(71) Applicant (for all designated States except US): APPLE COMUTER, INC. [US/US]; 1 Infinite Loop, Cupertino, CA 95014 (US).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): ZADESKY. Stephen, Paul [US/US]; 3366 Brittan Avenue #9, San Carlos, CA 94070 (US). LYNCH, Stephen, Brian [US/US]; 1620 Cervato Circle, Alamo, CA 94507 (US). DEGNER, Brett, William [US/US]; 845 Roble Avenue, #1, Menlo Park, CA 94025 (US).
- HOELLWARTH, Quin; Beyer Weaver & (74) Agent: Thomas, LLP, P.O. Box 70250, Oakland, CA 94612-0250 (US).

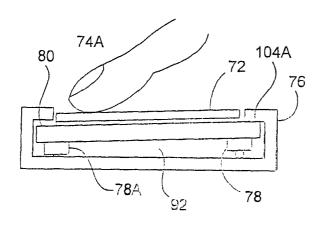
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 10 August 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MOVABLE TOUCH PAD WITH ADDED FUNCTIONALITY



(57) Abstract: An input device is disclosed. The input device includes a movable touch pad (72) capable of detecting an object in close proximity thereto so as to generate a first control signal. The input device also includes a movement indicator (78) capable of detecting the movements of the movable touch pad so as to generate one or more distinct second control signals. The control signals being used to perform actions in an electronic device operatively coupled to the input device.





INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/25452

A. CLASSIFICATION OF SUBJECT MATTER				
IPC:	G09G 5/00 (2006.01)			
USPC: 345/173 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) U.S.: 345/173-177; 178/18.03-18.06				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.	
X	US 6,243,080 B1 (MOLNE) 05 June 2001 (05.06.2001), Figures 1, 2 and 6, column 1, line 65 through column 2, line 1, column 2, lines 5-36, column 3, line 15 through column 5, line 6, and column 6, line 46 through column 7, line 34.		1-31	
Х	X US 6,429,846 B2 (ROSENBERG et al) 06 August 2002 (06.08.2002), Figures 1, 2, 6 and 7, column 2, lines 20-25, column 3, lines 54-63, column 4, lines 2-10, column 9, lines 13-39 and lines 60-66, column 11, lines 12-22, column 14, lines 54-65, and column 15, lines 39-44 and lines 48-59.			
Further	documents are listed in the continuation of Box C.	See patent family annex.		
* Special categories of cited documents:		"T" later document published after the international filing date or priority		
•	relevance plication or patent published on or after the international filing date	"X" document of particular relevance; the cl considered novel or cannot be considered when the document is taken alone		
"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)		"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		
"O" document referring to an oral disclosure, use, exhibition or other means		obvious to a person skilled in the art		
"P" document published prior to the international filing date but later than the priority date claimed		"&" document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search 1 4 JUN 2006	n report	
12 May 2006 (12.05.2006)		Authorized officer		
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		Authorized officer Jimmy H. Nguyen Telephone No. 571-272-7675		
	xandria, Virginia 22313-1450 . (571) 273-3201		d d	

	Total 1 1 1 1 1	
INTERNATIONAL SEARCH REPORT	International application No.	
INTERNATIONAL SEARCH REPORT	PCT/US04/25452	
	•	
Continuation of B. FIELDS SEARCHED Item 3:		
EAST; Databases: USPAT, US-PGPUB, EPO, JPO, USOCR, DERWENT, IBM_T	DB; Searched Terms: movable/rotatable/tiltable/	
pivotable touchpad/touchscreen/tablet/digitizer, depress/press, button, switch, sensor sensor/sensitive/sensing, button/switch zones/areas/portions, wired communication/o	, resistive/resistant/capacitive/optical/pressure/acoustic	
base, absolute mode, relative mode.	connection transmission, wheress, traine, nousing,	
buso, absorate mode, relative mode.		