

Title (en)  
SYSTEM FOR DISPOSING A PROXIMITY SENSITIVE TOUCHPAD BEHIND A MOBILE PHONE KEYMAT

Title (de)  
SYSTEM ZUM ANORDNEN EINES NÄHEEMPFINDLICHEN BERÜHRUNGSFELDES HINTER DER TASTENMATTE EINES MOBILTELEFONS

Title (fr)  
SYSTEME PERMETTANT DE PLACER UN PAVE TACTILE A DETECTION DE PROXIMITE EN DESSOUS DU CLAVIER NUMERIQUE D'UN TELEPHONE MOBILE

Publication  
**EP 1405298 A4 20090429 (EN)**

Application  
**EP 02746474 A 20020606**

Priority  
• US 0218055 W 20020606  
• US 29641401 P 20010606

Abstract (en)  
[origin: WO02100074A2] A proximity-based mutually capacitance-sensitive touchpad that is disposed directly beneath a keypad keymat of a mobile telephone, wherein posts associated with each key pass through a mutually capacitance-sensitive sensor electrode grid of the touchpad such that the keypad posts do not interfere with touchpad detection and tracking of a pointing object that moves along the keypad surface, to thereby enable touchpad data entry, cursor control, and scroll bar control on a display of the mobile telephone, wherein the keypad posts actuate mechanical switches underneath the touchpad.  
[origin: WO02100074A2] A proximity-based mutually capacitance-sensitive touchpad (26) that is disposed directly beneath a keypad keymat (22) of a mobile telephone (10), wherein posts (24) associated with each key (20) pass through a mutually capacitance-sensitive sensor electrode grid of the touchpad such that the keypad posts (24) do not interface with touchpad detection and tracking of pointing object that moves along the keypad surface, to thereby enable touchpad data entry, cursor control, and scroll bar control on a display of the mobile telephone, wherein the keypad posts actuate mechanical switches (32) underneath the touchpad.

IPC 1-7  
**G09G 5/00**

IPC 8 full level  
**G06F 3/02** (2006.01); **G06F 1/16** (2006.01); **G06F 3/0354** (2013.01); **G06F 3/044** (2006.01); **H04B 1/38** (2015.01); **H04B 1/3822** (2015.01); **H04B 1/3827** (2015.01); **H04M 1/02** (2006.01); **H04M 1/23** (2006.01); **H04M 1/247** (2006.01)

CPC (source: EP KR US)  
**G06F 1/1616** (2013.01 - EP US); **G06F 1/1626** (2013.01 - EP); **G06F 1/1647** (2013.01 - EP); **G06F 1/1662** (2013.01 - EP); **G06F 3/03547** (2013.01 - EP); **G06F 3/0445** (2019.05 - EP US); **G06F 3/0446** (2019.05 - EP US); **H04M 1/23** (2013.01 - EP KR); **G06F 2203/04106** (2013.01 - EP); **G06F 2203/04112** (2013.01 - EP); **H04M 2250/22** (2013.01 - EP)

Citation (search report)  
• [PX] EP 1197835 A2 20020417 - NOKIA CORP [FI]  
• [X] WO 9805025 A1 19980205 - AIRPOINT CORP [US], et al  
• [X] US 5270710 A 19931214 - GAULTIER PHILIPPE [FR], et al  
• [A] BURK A: "MOMENTARY SWITCHING ALTERNATIVES FOR KEY PAD AND FRONT PANEL APPLICATIONS", ELECTRO INTERNATIONAL CONFERENCE RECORD, WESTERN PERIODICALS CO, VENTURA, CA, US, vol. 18, 1 January 1993 (1993-01-01), pages 282 - 291, XP000381927

Designated contracting state (EPC)  
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DOCDB simple family (application)  
**US 0218055 W 20020606**; AU 2002316194 A 20020606; CA 2449447 A 20020606; CN 02813662 A 20020606; EP 02746474 A 20020606; JP 2003501921 A 20020606; KR 20037015962 A 20031205