

Title (en)

Handheld electronic device and keyboard having multiple-function keys

Title (de)

Tragbares elektronisches Gerät und Tastatur mit multifunktionalen Tasten

Title (fr)

Appareil électronique portatif et clavier avec des touches à fonctions multiples

Publication

EP 1575069 A1 20050914 (EN)

Application

EP 04250990 A 20040224

Priority

EP 04250990 A 20040224

Abstract (en)

An improved handheld electronic device having an improved keyboard provides enhanced usability with fewer keys by enabling the keys to pivot slightly to provide multiple functions to the keys. The improved keyboard may, for example, include internal strips of conductive carbon that are disposed adjacent the keys and are electrically engageable with contacts on a printed circuit board. Specifically, when a key is pressed directly downward it collapses a single dome and connects together a set of primary contacts to provide a first function. When the key is pressed at the side thereof, the key pivots slightly, collapses the dome and connects together the primary contacts, and also engages a carbon strip with a pair of secondary contacts to connect together the secondary contacts, all of which provide a second function. The keyboard may be configured to be of a QWERTY configuration while using only a relatively small number of keys.

IPC 1-7

H01H 13/70

IPC 8 full level

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CPC (source: EP)

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H01H 2209/014 (2013.01); **H01H 2221/016** (2013.01); **H01H 2225/01** (2013.01)

Citation (search report)

- [XY] US 2001003539 A1 20010614 - HAHM JIN HO [KR], et al
- [Y] WO 9704472 A1 19970206 - NOKIA MOBILE PHONES LTD [FI], et al
- [A] GB 1484634 A 19770901 - NORTHERN TELECOM LTD

Cited by

US9715275B2; US7310053B2; US9791928B2; US9733705B2; US7081837B2

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