

Title (en)
Shielded Microphone for Mobile Communications Device

Title (de)
Abgeschirmtes Mikrofon für ein mobiles Kommunikationsgerät

Title (fr)
Microphone blindé pour un dispositif de communication mobile

Publication
EP 1843625 A1 20071010 (EN)

Application
EP 06112357 A 20060407

Priority
EP 06112357 A 20060407

Abstract (en)
A shielded microphone, and method for shielding a microphone, are provided for use in a communications device having a circuit board and a microphone, especially where the device also has an antenna in close proximity to the microphone. The microphone is provided in an electromagnetic shield (e.g. formed as a shielding can) and a resilient separator (e.g. o-ring or disk) is provided over the shield. The device housing is stacked over the separator and shield, while the latter are stacked over the circuit board so that the separator and shield, with microphone there under, are sandwiched between the housing and the circuit board. By this sandwiching the separator is loaded onto the shield to drive the shield directly against the circuit board to make an electrical ground connection therewith, the microphone also being electrically connected to the printed circuit board. The microphone is thereby enclosed between the circuit board and the shield, such that the shield shields the microphone against electromagnetic energy radiated by the proximate antenna. The resilience of the separator accommodates the variation in the stacking of the components.

IPC 8 full level
H04R 1/04 (2006.01)

CPC (source: EP)
H04R 1/04 (2013.01); **H04R 1/083** (2013.01)

Citation (search report)

- [A] WO 2006024134 A1 20060309 - RESEARCH IN MOTION LTD [CA]
- [A] US 5937361 A 19990810 - SMITH STACY NEIL [US]
- [A] JP H0678040 A 19940318 - MATSUSHITA ELECTRIC IND CO LTD
- [A] EP 0856977 A1 19980805 - NOKIA MOBILE PHONES LTD [FI]

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1843625 A1 20071010; EP 1843625 B1 20081210; AT E417478 T1 20081215; CA 2583899 A1 20071007; CA 2583899 C 20110308; DE 602006004174 D1 20090122

DOCDB simple family (application)
EP 06112357 A 20060407; AT 06112357 T 20060407; CA 2583899 A 20070404; DE 602006004174 T 20060407