

Title (en)  
Planar antenna for a portable radio device

Title (de)  
Flachantenne für Mobilfunkgeräte

Title (fr)  
Antenne plane pour radiotéléphonie mobile

Publication  
**EP 1063721 A1 20001227 (EN)**

Application  
**EP 00660116 A 20000621**

Priority  
FI 991447 A 19990624

Abstract (en)  
An antenna part (401, 501) for portable radio devices (402, 502) comprises a planar radiator (202) bounded by a certain first outline and attachment means (211, 403, 404) for mechanically attaching the antenna part to a portable radio device. Additionally it comprises a ground plane (204, 414) which is essentially parallel to the planar radiator (202), separated from the planar radiator (202) by a certain essentially constant distance and bounded by a second outline which is essentially the same as the first outline. <IMAGE>

IPC 1-7  
**H01Q 1/27**

IPC 8 full level  
**H01Q 1/24** (2006.01); **H01Q 9/04** (2006.01)

CPC (source: EP)  
**H01Q 1/243** (2013.01); **H01Q 9/0421** (2013.01)

Citation (search report)

- [PX] US 5926139 A 19990720 - KORISCH ILYA A [US]
- [X] WO 9627219 A1 19960906 - UNIV HONG KONG CHINESE [GB]
- [X] WO 9927607 A2 19990603 - LK PRODUCTS OY [FI], et al
- [X] EP 0892459 A1 19990120 - NOKIA MOBILE PHONES LTD [FI]
- [A] US 4694301 A 19870915 - WASSUM RAYMOND E [US]

Citation (examination)  
GB 2293274 A 19960320 - MOTOROLA INC [US]

Cited by  
CN100346532C; EP1376761A4; EP2375489A3; US11916282B2; US9761934B2; US10056682B2; US10243279B2; EP3855567A4; JP2022511667A; AU2019376754B2; US9899727B2; US10644380B2; US11031677B2; US11349200B2; US11735810B2

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**EP 1063721 A1 20001227**; FI 991447 A0 19990624; FI 991447 A 20001225

DOCDB simple family (application)  
**EP 00660116 A 20000621**; FI 991447 A 19990624