

Title (en)
A hybrid antenna system for a portable wireless communication device

Title (de)
Hybrides Antennensystem für ein tragbares Funkkommunikationsgerät

Title (fr)
Système d'antenne hybride pour dispositif de communication sans fil portable

Publication
EP 2256858 A3 20110330 (EN)

Application
EP 10173310 A 20000303

Priority

- EP 00912143 A 20000303
- US 0005462 W 20000303

Abstract (en)
[origin: WO0167546A1] A hybrid antenna system for a portable Wireless Communication Device (WCD) includes a concealed, internal shielded substrate antenna fixedly mounted to and wholly internally within a casing of the portable WCD. The hybrid antenna system also includes a displaceable antenna, such as a whip antenna, that is selectively extendable from and retractable within the casing. The antenna system includes a mechanism for electrically connecting the displaceable antenna to internal RF circuitry of the portable WCD when the displaceable antenna is in an extended position and for electrically isolating the displaceable antenna from the internal RF circuitry when the displaceable antenna is in a retracted position within the casing.

IPC 8 full level
H01Q 1/24 (2006.01); **H01Q 3/24** (2006.01); **H01Q 1/10** (2006.01); **H01Q 1/38** (2006.01); **H01Q 9/30** (2006.01); **H01Q 21/28** (2006.01); **H04M 1/00** (2006.01); **H04M 1/02** (2006.01); **H04M 1/725** (2006.01)

CPC (source: EP KR)
H01Q 1/24 (2013.01 - KR); **H01Q 1/243** (2013.01 - EP); **H01Q 1/244** (2013.01 - EP); **H01Q 21/28** (2013.01 - EP)

Citation (search report)

- [X] WO 9801919 A2 19980115 - DANCALL TELECOM AS [DK], et al
- [XY] EP 0843376 A2 19980520 - NEC CORP [JP]
- [X] US 4914714 A 19900403 - TAMURA YOSHIHARU [JP]
- [Y] US 5731791 A 19980324 - JANG CHANG-WEON [KR]
- [Y] US 5892483 A 19990406 - HAYES GERARD JAMES [US], et al
- [A] WO 9943040 A1 19990826 - QUALCOMM INC [US]

Cited by
CN106968514A; CN105071848A; CN105635387A

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)
WO 0167546 A1 20010913; AU 2000233923 B2 20050127; AU 3392300 A 20010917; CN 1452799 A 20031029; EP 1261996 A1 20021204; EP 2256858 A2 20101201; EP 2256858 A3 20110330; JP 2003526975 A 20030909; KR 100705883 B1 20070410; KR 20020079936 A 20021019

DOCDB simple family (application)
US 0005462 W 20000303; AU 2000233923 A 20000303; AU 3392300 A 20000303; CN 00819494 A 20000303; EP 00912143 A 20000303; EP 10173310 A 20000303; JP 2001566214 A 20000303; KR 20027011545 A 20020903