

Title (en)
Antenna for radio telephone

Title (de)
Antenne für Funkgerät

Title (fr)
Antenne pour appareil radio

Publication
EP 0977303 A3 20030409 (EN)

Application
EP 99114696 A 19990727

Priority
• JP 21153498 A 19980727
• JP 19290699 A 19990707

Abstract (en)
[origin: EP0977303A2] Provides an antenna for a radio telephone whereby, in a state wherein a rod-shaped antenna (10) is extended to outside the case (50) of the radio telephone, the effects of the human body are negligible and emission of radio waves at an angle close to the horizontal direction is possible, and in a state wherein the rod-shaped antenna (10) is retracted within the case (50), no unwanted radiation is produced. For this purpose, a helical antenna (20) having an electrical length of $\lambda/4$ and the rod-shaped antenna (10) extendable and retractable with respect to the case (50) through the hollow central portion of the helical antenna (20) and having an electrical length of about $3\lambda/8$ and inductive reactance, are electrically coupled by means of an electrostatic coupling portion (30) having capacitive reactance such that, in the state wherein the rod-shaped antenna (10) is extended from the case (50), the inductive reactance of the rod-shaped antenna (10) is canceled out. The length of the bottom portion (12a) of the connecting member (12) is preferably set to a length such that when the rod-shaped antenna (10) is retracted within the case (50), the bottom portion (12a) of the connecting member (12) passes through the helical coil (20) over the entire length thereof, severing electrical coupling between the helical antenna (20) and the rod-shaped antenna (10). <IMAGE>

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IPC 8 full level
H01Q 1/08 (2006.01); **H01Q 1/22** (2006.01); **H01Q 1/24** (2006.01); **H01Q 11/08** (2006.01)

CPC (source: EP)
H01Q 1/084 (2013.01); **H01Q 1/244** (2013.01)

Citation (search report)
• [A] EP 0367609 A2 19900509 - MOTOROLA INC [US]
• [E] US 5952974 A 19990914 - ITO HIROKI [JP], et al
• [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 05 31 May 1996 (1996-05-31)
• [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 07 31 July 1996 (1996-07-31)

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EP 0977303 A2 20000202; **EP 0977303 A3 20030409**; CN 1205695 C 20050608; CN 1250237 A 20000412; JP 2000106502 A 20000411

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