

Title (en)

Low-cost printed omni-directional monopole antenna for ultra-wideband in mobile applications

Title (de)

Kostengünstig gedruckte rundstrahlende Monopolantenne für ultrabreitbandige mobile Anwendungen

Title (fr)

Antenne monopole imprimée omnidirectionnelle à faible coût pour des applications mobiles à bande ultra-large

Publication

**EP 1324423 A1 20030702 (EN)**

Application

**EP 01130864 A 20011227**

Priority

EP 01130864 A 20011227

Abstract (en)

The underlying invention generally relates to the field of microwave antennas applied to Smart Handheld Devices (SHDs) with high-speed mobile access, and, more particularly, to a new solution for a monopole antenna (106) characterized by an omni-directional radiation pattern (900), in which said monopole antenna (106) is formed by a conductive patch printed on the same substrate (104a) where the RF front-end chip is placed, thereby having the capability of a simple planar feeding, improving cost manufacturing. Said monopole antenna (106) can advantageously be applied to an antenna system comprising at least one dielectric substrate (104a) with a metallized grounded back plane (104b), one metallic reflector box (102) with at least one metallic reflector plane (103), and at least one microstrip line (105) printed on said dielectric substrate (104a) serving as an electrical feeding from an impedance matching network to the radiation element (106). <IMAGE>

IPC 1-7

**H01Q 1/24**; **H01Q 1/38**; **H01Q 9/40**; **H01Q 23/00**; **H01Q 1/52**

IPC 8 full level

**H01Q 1/24** (2006.01); **H01Q 1/38** (2006.01); **H01Q 1/52** (2006.01); **H01Q 9/40** (2006.01); **H01Q 23/00** (2006.01)

CPC (source: EP)

**H01Q 1/242** (2013.01); **H01Q 1/38** (2013.01); **H01Q 1/526** (2013.01); **H01Q 9/40** (2013.01); **H01Q 23/00** (2013.01)

Citation (search report)

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- [A] EP 0522538 A2 19930113 - NEC CORP [JP]
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