

Title (en)

Antenna device and portable radio communication device comprising such an antenna device

Title (de)

Antennenvorrichtung und tragbare Funkkommunikationsvorrichtung mit einer solchen Antennenvorrichtung

Title (fr)

Dispositif d'antenne et dispositif de communication radio portable comportant un tel dispositif d'antenne

Publication

EP 2251930 A1 20101117 (EN)

Application

EP 09159923 A 20090511

Priority

EP 09159923 A 20090511

Abstract (en)

An antenna device (12) operable in at least a first lower frequency band and a second higher frequency band comprises a first radiating element (16), which operates in the first frequency band and has a first and a second (20) opposite end and a second radiating element (21) joined to the first end. Thereby the first end defines a first junction (18). The second element stretches away from the first element. The device also comprises a first feeding connection (FC1) leading to the first junction, a first connection path (P1) between the first feeding connection and a first frequency band signal handling unit, a first tuning element (T1) connected to the first connection path, a first signal passing and blocking arrangement (22), a second connection path (P2) between the first junction and a second frequency band signal handling unit and a second signal passing and blocking arrangement (26).

IPC 8 full level

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CPC (source: EP)

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Citation (applicant)

- US 6204819 B1 20010320 - HAYES GERARD JAMES [US], et al
- US 2006097918 A1 20060511 - OSHIYAMA TADASHI [JP], et al
- US 2004041734 A1 20040304 - SHIOTSU SHINICHI [JP], et al
- EP 1335449 A1 20030813 - MITSUBISHI ELECTRIC CORP [JP]
- US 2007035458 A1 20070215 - OHBA ISAO [JP]
- EP 1848061 A2 20071024 - YOKOWO SEISAKUSHO KK [JP]
- JP 2008294635 A 20081204 - SHARP KK
- JP S61265905 A 19861125 - TOYO COMMUNICATION EQUIP

Citation (search report)

- [XY] EP 1335449 A1 20030813 - MITSUBISHI ELECTRIC CORP [JP]
- [XY] US 2007035458 A1 20070215 - OHBA ISAO [JP]
- [XY] EP 1848061 A2 20071024 - YOKOWO SEISAKUSHO KK [JP]
- [Y] JP 2008294635 A 20081204 - SHARP KK
- [Y] JP S61265905 A 19861125 - TOYO COMMUNICATION EQUIP
- [Y] WO 0249151 A1 20020620 - KONINKL PHILIPS ELECTRONICS NV [NL]
- [A] US 6204819 B1 20010320 - HAYES GERARD JAMES [US], et al
- [A] US 2005225488 A1 20051013 - NAKAGAWA YOSHINOBU [JP], et al

Cited by

CN104852148A; EP2846402A4; CN106329133A; EP2940787A1; EP2937937A4; CN106299597A; CN106340706A; US9847585B2; US9660343B2; US10418715B2; EP3410534B1

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