

Title (en)

A multi-band antenna for a portable radio communication device

Title (de)

Mehrband-Antenne für ein tragbares Funkkommunikationsgerät

Title (fr)

Antenne multibande pour dispositif portable de communications radio

Publication

**EP 1962375 A1 20080827 (EN)**

Application

**EP 07445005 A 20070220**

Priority

EP 07445005 A 20070220

Abstract (en)

The present invention relates to a multi-band antenna arranged to provide a high frequency band and a low frequency band for a portable radio communication device, the multi-band antenna comprising a main antenna element (1) and a parasitic antenna element (2), wherein the main antenna element (1) is arranged to provide resonance in the high frequency band and the low frequency band, wherein the multi-band antenna comprises controllable switching means (9) arranged to tune the parasitic antenna element (2) to a first parasitic resonance center frequency (IIa) above a first main resonance center frequency (Ia) of the main antenna element (1) in a first state of the switching means (9) and to tune the parasitic antenna element (2) to a second parasitic resonance center frequency (IIb) below a second main resonance center frequency (Ib) in a second state of the switching means (9).

IPC 8 full level

**H01Q 1/24** (2006.01); **H01Q 5/00** (2006.01); **H01Q 5/378** (2015.01); **H01Q 9/04** (2006.01); **H01Q 19/00** (2006.01)

CPC (source: EP)

**H01Q 1/243** (2013.01); **H01Q 5/378** (2015.01); **H01Q 9/0421** (2013.01); **H01Q 9/0442** (2013.01); **H01Q 19/005** (2013.01)

Citation (search report)

- [X] EP 1469549 A1 20041020 - FILTRONIC LK OY [FI]
- [X] US 2004233109 A1 20041125 - YING ZHINONG [SE], et al
- [E] EP 1755191 A1 20070221 - NOKIA CORP [FI]

Cited by

US2014375515A1; KR101357724B1; CN107706506A; EP2816665A1; US2015155634A1; US9548538B2; US9774082B2; US11336025B2; US8860614B2; WO2013100676A1; WO2013104656A1; WO2011087751A3; EP3896789B1

Designated contracting state (EPC)

DE FI FR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

**EP 1962375 A1 20080827**; WO 2008103102 A1 20080828

DOCDB simple family (application)

**EP 07445005 A 20070220**; SE 2008000131 W 20080219