

Title (en)

Multiple frequency bands antenna using two concentric interleaved antennas, the external one being a meander line antenna

Title (de)

Mehrbandantenne mit zwei konzentrischen verschachtelten Antennen, wobei die äussere eine meanderförmige Antenne ist

Title (fr)

Antenne multibandes utilisant deux antennes imbriquées et concentriques, l'antenne extérieure étant du type en méandres

Publication

EP 1267439 B1 20050727 (EN)

Application

EP 02253367 A 20020514

Priority

SG 200103546 A 20010615

Abstract (en)

[origin: EP1267439A1] An antenna (1) is provided to operate in multiple frequency bands. The antenna (1) consists of a first antenna element (3) for receiving and transmitting signals in a first frequency band, and a second antenna element (7) for receiving and transmitting signals in a second frequency band. The first antenna element (3) has a substantially elongated conductor of a predetermined first pitch, which is coupled to a feed point (4). The second antenna element (3) has a substantially meandering coil of a predetermined second pitch, which is coupled to said feed point (4). The substantially meandering coil comprises a plurality of first portions (7a) having a wound form and surrounding at least partly said first antenna element (3) and also comprises a plurality of second portions (7b) having a straight form. Each first portion (7a) extends from an upper end of said second portion (7b) to a lower end of a subsequent second portion (7b) following in axial direction of the second antenna element. <IMAGE>

IPC 1-7

H01Q 1/36; **H01Q 5/00**; **H01Q 1/24**

IPC 8 full level

H01Q 21/30 (2006.01); **H01Q 1/24** (2006.01); **H01Q 1/36** (2006.01); **H01Q 1/38** (2006.01); **H01Q 1/42** (2006.01); **H01Q 5/00** (2015.01); **H01Q 5/10** (2015.01); **H01Q 5/371** (2015.01); **H01Q 9/32** (2006.01); **H01Q 9/42** (2006.01)

CPC (source: EP)

H01Q 1/241 (2013.01); **H01Q 1/362** (2013.01); **H01Q 5/40** (2015.01); **H01Q 21/30** (2013.01)

Cited by

DE102004029215B4; US7286090B1; US7525488B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1267439 A1 20021218; **EP 1267439 B1 20050727**; DE 60205181 D1 20050901; DE 60205181 T2 20060601; JP 2003037418 A 20030207

DOCDB simple family (application)

EP 02253367 A 20020514; DE 60205181 T 20020514; JP 2002173645 A 20020614