

Title (en)
Multi-band antenna

Title (de)
Mehrbandantenne

Title (fr)
Antenne multibande

Publication
EP 1276170 A1 20030115 (EN)

Application
EP 01202677 A 20010712

Priority
EP 01202677 A 20010712

Abstract (en)
An antenna comprising a conductive patch arranged to resonate when excited by an electromagnetic signal, and a feed mechanism arranged to provide electromagnetic signals to the conductive patch. For a generally rectangular patch, the feed mechanism is arranged to feed electromagnetic signals to a point substantially on, or in-line with, a diagonal of the patch. Feeding the conductive patch in this manner enables the patch to resonate in a plurality of discrete frequency bands. This means that the antenna is capable of multi-band operation without the need for additional resonating patches, shorting pins, matching circuits or multiple feed points. In a preferred embodiment, the patch includes one or more slots for manipulating the performance of the antenna. <IMAGE>

IPC 1-7
H01Q 1/36; **H01Q 1/38**; **H01Q 9/04**; **H01Q 5/00**

IPC 8 full level
H01Q 1/36 (2006.01); **H01Q 1/38** (2006.01); **H01Q 5/00** (2006.01); **H01Q 5/364** (2015.01); **H01Q 5/371** (2015.01); **H01Q 9/04** (2006.01)

CPC (source: EP)
H01Q 1/36 (2013.01); **H01Q 1/38** (2013.01); **H01Q 5/364** (2015.01); **H01Q 5/371** (2015.01); **H01Q 9/0407** (2013.01); **H01Q 9/0442** (2013.01); **H01Q 9/0478** (2013.01)

Citation (search report)

- [X] US 6181281 B1 20010130 - DESCLOS LAURENT [JP], et al
- [X] SZE JIA-YI ET AL: "Broadband rectangular microstrip antenna with pair of toothbrush-shaped slots", ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 34, no. 23, 12 November 1998 (1998-11-12), pages 2186 - 2187, XP006010604, ISSN: 0013-5194
- [A] ZÜRCHER J-F AND GARDIOL F.E.: "Broadband Patch Antennas", 1995, ARTECH HOUSE, BOSTON, USA, XP002184167
- [XA] LU J-H AND WONG K-L: "Slot loaded, meandered rectangular microstrip antenna with compact dual-frequency operation", ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 34, no. 11, 28 May 1998 (1998-05-28), XP000846178, ISSN: 0013-5194
- [X] FANG SHYH-TIRNG ET AL: "Bandwidth enhancement of inset-microstrip-line-fed equilateral-triangular microstrip antenna", ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 34, no. 23, 12 November 1998 (1998-11-12), pages 2184 - 2186, XP006010612, ISSN: 0013-5194
- [X] WONG K-L ET AL: "BROADBAND TRIANGULAR MICROSTRIP ANTENNA WITH U-SHAPED SLOT", ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 33, no. 25, 4 December 1997 (1997-12-04), pages 2085 - 2087, XP000773551, ISSN: 0013-5194

Cited by
EP3343697A1; CN112635981A; CN112928480A; GB2453160B; GB2453160A; US2016079676A1; US9954285B2; CN104137340A; GB2624348A; US9300050B2; US11322847B2; WO2007000749A1; WO2023049149A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1276170 A1 20030115; **EP 1276170 B1 20060830**; AT E338354 T1 20060915; DE 60122698 D1 20061012; DE 60122698 T2 20070830

DOCDB simple family (application)
EP 01202677 A 20010712; AT 01202677 T 20010712; DE 60122698 T 20010712