

Title (en)  
DUAL BAND ANTENNA

Title (de)  
ZWEIBANDANTENNE

Title (fr)  
ANTENNE A DOUBLE BANDE

Publication  
**EP 1038332 B1 20080409 (EN)**

Application  
**EP 98962782 A 19981207**

Priority  
• SE 9802235 W 19981207  
• SE 9704642 A 19971212

Abstract (en)  
[origin: WO9931757A1] An aperture-coupled antenna, comprising at least one antenna element including a number of substantially planar, mutually parallel radiating patches (1-3) being fed with microwave power from a feed network (6) via an aperture (5a, 5b) in a ground plane layer (4). The feed network (6) feeds microwave power in at least two separate frequency bands, including a first, relatively low frequency band and a second, relatively high frequency band. A first patch (2) radiates microwave power in said first frequency band and is provided with an aperture (9a, 9b) so as to couple microwave power in said second frequency band to a second patch (1), the microwave power in said second frequency band being fed from the feed network (6) via the apertures (5a, 5b; 9a, 9b) in said ground plane layer (4) and said first patch (2) to said second patch (1).

IPC 8 full level  
**H01Q 1/38** (2006.01); **H01Q 1/24** (2006.01); **H01Q 5/00** (2006.01); **H01Q 9/04** (2006.01); **H01Q 19/10** (2006.01)

CPC (source: EP)  
**H01Q 1/243** (2013.01); **H01Q 1/38** (2013.01); **H01Q 5/378** (2015.01); **H01Q 9/0414** (2013.01); **H01Q 9/0428** (2013.01); **H01Q 9/0457** (2013.01); **H01Q 19/10** (2013.01)

Citation (examination)  
• US 5124713 A 19920623 - MAYES PAUL E [US], et al  
• US 4903033 A 19900220 - TSAO CHICH-HSING [US], et al  
• COLOMB F.Y.; MAYES P.E.: "Stacked patches with a slot in the common wall for single- and dual-band operation", IEEE ANTENNAS AND PROPAGATION SOCIETY INTERNATIONAL SYMPOSIUM, vol. 4, July 1992 (1992-07-01), NEW YORK, pages 2077 - 2080, XP010066000  
• DAVID M. POZAR, SEAN M. DUFFY: "A dual-band circularly polarized aperture-coupled stacked microstrip antenna for global positioning satellite", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol. 45, no. 11, 1 November 1997 (1997-11-01), NEW YORK, pages 1618 - 1624, XP000723132

Cited by  
US11296416B2

Designated contracting state (EPC)  
DE ES FR GB IT

DOCDB simple family (publication)  
**WO 9931757 A1 19990624**; AU 1794099 A 19990705; BR 9813505 A 20001010; BR 9813505 B1 20120502; CN 1147966 C 20040428; CN 1281590 A 20010124; DE 69839348 D1 20080521; DE 69839348 T2 20080717; EP 1038332 A1 20000927; EP 1038332 B1 20080409; ES 2301218 T3 20080616; HK 1033210 A1 20010817; SE 511064 C2 19990726; SE 9704642 D0 19971212; SE 9704642 L 19990613; TW 413967 B 20001201

DOCDB simple family (application)  
**SE 9802235 W 19981207**; AU 1794099 A 19981207; BR 9813505 A 19981207; CN 98812131 A 19981207; DE 69839348 T 19981207; EP 98962782 A 19981207; ES 98962782 T 19981207; HK 01103784 A 20010601; SE 9704642 A 19971212; TW 87103453 A 19980310