

Title (en)  
DOUBLE POLARIZATION DUAL-BAND RADIATING DEVICE

Title (de)  
DOPPELPOLARISATIONS-DOPPELBANDSTRAHLUNGSEINRICHTUNG

Title (fr)  
DISPOSITIF RAYONNANT BI-BANDE A DOUBLE POLARISATION

Publication  
**EP 1516393 A1 20050323 (FR)**

Application  
**EP 03760720 A 20030611**

Priority  
• FR 0301745 W 20030611  
• FR 0207872 A 20020625  
• FR 0215350 A 20021205

Abstract (en)  
[origin: WO2004001902A1] The invention concerns a device comprising a first radiating element operating in a first frequency band F1, consisting of four dipoles (1, 2, 3, 4) in square arrangement and a second radiating element (23) operating in a second frequency band F2 consisting of at least one dipole arranged in the center of the square of dipoles (1, 2, 3, 4) forming the first radiating element, each dipole being center-fed by a balun. The set of radiating elements is arranged above a reflector (24). The dipoles (1, 2, 3, 4) forming the first radiating element and the baluns (8, 9, 10, 11) associated therewith are produced in a common metal plate (5), each balun of a dipole consisting of a close-circuit slotted line cut out in the metal plate (5) along a direction perpendicular to the dipole axis. The second radiating element (23) consists of at least one dipole arranged inside a metal cavity (7) located in the center of the metal plate (5). The invention is applicable to cellular radio communication networks.

IPC 1-7  
**H01Q 21/24**; **H01Q 21/30**; **H01Q 19/10**; **H01Q 1/52**; **H01Q 25/00**

IPC 8 full level  
**H01Q 1/24** (2006.01); **H01Q 1/52** (2006.01); **H01Q 19/10** (2006.01); **H01Q 21/24** (2006.01); **H01Q 21/30** (2006.01); **H01Q 25/00** (2006.01)

CPC (source: EP)  
**H01Q 1/246** (2013.01); **H01Q 1/521** (2013.01); **H01Q 5/42** (2015.01); **H01Q 19/108** (2013.01); **H01Q 21/24** (2013.01); **H01Q 21/30** (2013.01); **H01Q 25/001** (2013.01)

Citation (search report)  
See references of WO 2004001902A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**FR 2841391 A1 20031226**; **FR 2841391 B3 20040924**; AT E456168 T1 20100215; AU 2003255660 A1 20040106; CN 100570953 C 20091216; CN 1663075 A 20050831; DE 60331067 D1 20100311; EP 1516393 A1 20050323; EP 1516393 B1 20100120; ES 2339764 T3 20100525; PT 1516393 E 20100415; WO 2004001902 A1 20031231

DOCDB simple family (application)  
**FR 0215350 A 20021205**; AT 03760720 T 20030611; AU 2003255660 A 20030611; CN 03814895 A 20030611; DE 60331067 T 20030611; EP 03760720 A 20030611; ES 03760720 T 20030611; FR 0301745 W 20030611; PT 03760720 T 20030611