

Title (en)

Printed antenna with a two-beam diagram

Title (de)

Gedruckte Antenne mit einem Doppelstrahldiagramm

Title (fr)

Antenne imprimée présentant un diagramme bi-faisceaux

Publication

EP 2086053 B1 20161019 (FR)

Application

EP 09290072 A 20090130

Priority

FR 0850581 A 20080130

Abstract (en)

[origin: EP2086053A1] The antenna has a substrate layered on a ground plane, and a metal layer deposited on the other side of the substrate to form a resonant patch (3) with dimensions allowing radiation in two higher electromagnetic modes (TM 02 and TM 20). A feed portion, e.g. microstrip, excites the patch at an excitation point (4) so that it resonates in one of the modes to produce a dual-beam radiation pattern, in a plane orthogonal to the patch, with two main lobes that are misaligned and symmetrical with respect to a line normal to the patch. The patch is preferably square with sides of length approximately equal to an integer multiple of the wavelength within the substrate and may be optically transparent.

IPC 8 full level

H01Q 9/04 (2006.01); **H01Q 1/38** (2006.01); **H01Q 25/04** (2006.01)

CPC (source: EP US)

H01Q 1/38 (2013.01 - EP US); **H01Q 9/045** (2013.01 - EP US); **H01Q 25/04** (2013.01 - EP US)

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 2086053 A1 20090805; EP 2086053 B1 20161019; FR 2926929 A1 20090731; FR 2926929 B1 20100319; JP 2009194904 A 20090827; US 2009224980 A1 20090910; US 8502734 B2 20130806

DOCDB simple family (application)

EP 09290072 A 20090130; FR 0850581 A 20080130; JP 2009014360 A 20090126; US 36233509 A 20090129