

Title (en)

An antenna, a multiple antenna array and a method of radiating a radio-frequency signal

Title (de)

Antenne, Mehrfachantennenanordnung und Verfahren zum Ausstrahlen eines Funkfrequenzsignals

Title (fr)

Antenne, réseau d'antennes multiples et procédé permettant de rayonner un signal radioélectrique

Publication

EP 2913892 A1 20150902 (EN)

Application

EP 14290052 A 20140227

Priority

EP 14290052 A 20140227

Abstract (en)

An antenna (2) is provided comprising a patch (4) located above a ground plane (8), the patch comprising a plate (12) and four side walls (16), the plate being at least substantially rectangular so as to have four edges, a respective one of the side walls extending down from each of the edges.

IPC 8 full level

H01Q 9/04 (2006.01); **H01Q 9/42** (2006.01); **H01Q 21/06** (2006.01)

CPC (source: EP)

H01Q 9/0414 (2013.01); **H01Q 9/045** (2013.01); **H01Q 9/42** (2013.01); **H01Q 21/065** (2013.01)

Citation (applicant)

- T. A. MILLIGAN: "Modern Antenna Design", 2005, JOHN WILEY & SONS, pages: 255
- K.-L. WONG: "Compact and Broadband Microstrip Antennas", 2002, JOHN WILEY & SONS, pages: 1 - 7
- J. A. NAVARRO ET AL.: "A 29.3 GHz cavity-enclosed aperture-coupled circular patch antenna for microwave circuit integration", IEEE MICROWAVE AND GUIDED WAVE LETTERS, vol. 1, no. 7, July 1991 (1991-07-01), pages 170 - 171, XP000209101, DOI: doi:10.1109/75.84572
- B. A. BRYNJARSSON; T. SYVERSEN: "Cavity-enclosed, aperture coupled microstrip patch antenna", IEE 1993 INTERNATIONAL CONFERENCE ON ANTENNAS AND PROPAGATION SYMPOSIUM PROCEEDINGS, vol. 2, March 1993 (1993-03-01), pages 715 - 718
- P. LNGVARSON ET AL.: "Patch-excited cup elements for satellite-based mobile communication antennas", 2000 IEEE INTERNATIONAL CONFERENCE ON PHASED ARRAY SYSTEMS AND TECHNOLOGY, May 2000 (2000-05-01), pages 215 - 218, XP010504578, DOI: doi:10.1109/PAST.2000.858943

Citation (search report)

- [X] DE 102011117690 B3 20121220 - KATHREIN WERKE KG [DE]
- [X] EP 1933416 A1 20080618 - ALPS ELECTRIC CO LTD [JP]
- [X] US 5633646 A 19970527 - STRICKLAND PETER C [CA]
- [X] US 2008074327 A1 20080327 - NORO JUNICHI [JP], et al
- [X] US 2009303133 A1 20091210 - UEKI NORIYUKI [JP]

Cited by

CN115313038A; CN112259959A; WO2019111025A1

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

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