

Title (en)

Dual-polarized, microstrip patch antenna array, and associated methodology, for radio device

Title (de)

Dualpolarisierte Mikrostreifen-Patch-Antennenanordnung und zugehöriges Verfahren für ein Radiogerät

Title (fr)

Réseau d'antenne à plaques en microruban à double polarisation et méthodologie correspondante pour dispositif radio

Publication

EP 1983613 A1 20081022 (EN)

Application

EP 07106261 A 20070416

Priority

EP 07106261 A 20070416

Abstract (en)

A dual-polarized antenna, and an associated methodology, is provided for a radio device, such as a mobile station. The antenna is formed of a plurality of patches configured into an array, symmetrical in both a first polarization direction and a second polarization direction. Adjacent patches of the array are interconnected by connecting strips that are also symmetrically positioned in the two directions. These connecting strips not only act as feeding lines for the patches but also operate as in-phase radiation elements in each polarization direction. A transverse strip extends between a pair of transversely positioned patches. And a single feed connection is provided thereat.

IPC 8 full level

H01Q 21/06 (2006.01); **H01Q 21/24** (2006.01)

CPC (source: EP KR)

H01Q 1/24 (2013.01 - KR); **H01Q 1/38** (2013.01 - KR); **H01Q 13/08** (2013.01 - KR); **H01Q 21/065** (2013.01 - EP); **H01Q 21/24** (2013.01 - EP)

Citation (applicant)

US 2003122715 A1 20030703 - AIKAWA MASAYOSHI [JP], et al

Citation (search report)

- [A] US 2003122715 A1 20030703 - AIKAWA MASAYOSHI [JP], et al
- [X] GAO S C ET AL: "Low cost, dual linearly polarised microstrip patch array", IEE PROCEEDINGS H. MICROWAVES, ANTENNAS & PROPAGATION, INSTITUTION OF ELECTRICAL ENGINEERS. STEVENAGE, GB, vol. 148, no. 1, 9 February 2001 (2001-02-09), pages 21 - 24, XP006016103, ISSN: 0950-107X
- [X] SHICHANG GAO ET AL: "A dual-polarized microstrip antenna array with high isolation fed by coplanar network", RADIO AND WIRELESS CONFERENCE, 1998. RAWCON 98. 1998 IEEE COLORADO SPRINGS, CO, USA 9-12 AUG. 1998, NEW YORK, NY, USA, IEEE, US, 9 August 1998 (1998-08-09), pages 213 - 216, XP010296291, ISBN: 0-7803-4988-1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

EP 1983613 A1 20081022; **EP 1983613 B1 20091118**; AT E449437 T1 20091215; BR PI0801839 A2 20081216; BR PI0801839 B1 20210831; CA 2629183 A1 20081016; CA 2629183 C 20120228; CN 101295818 A 20081029; CN 101295818 B 20121024; DE 602007003322 D1 20091231; KR 101058477 B1 20110824; KR 20080093379 A 20081021; MX 2008004910 A 20090302; TW 200901560 A 20090101; TW I362784 B 20120421

DOCDB simple family (application)

EP 07106261 A 20070416; AT 07106261 T 20070416; BR PI0801839 A 20080415; CA 2629183 A 20080415; CN 200810127713 A 20080414; DE 602007003322 T 20070416; KR 20080034698 A 20080415; MX 2008004910 A 20080414; TW 97113690 A 20080415