

Title (en)
MOBILE RADIO ANTENNA

Title (de)
MOBILFUNKANTENNE

Title (fr)
ANTENNE DE TÉLÉPHONIE MOBILE

Publication
EP 3214695 A1 20170906 (DE)

Application
EP 17157872 A 20170224

Priority
DE 102016002588 A 20160303

Abstract (en)
[origin: US2017256847A1] The present invention relates to a cellular radio antenna, in particular for a cellular radio base station, having at least one dipole radiator and having a dielectric body that is arranged on the dipole radiator and characterized in that the height H of the dielectric body in the main radiation direction amounts to at least 30% of the maximum thickness D of the dielectric body in a cross-section perpendicular to the main radiation direction.

Abstract (de)
Die vorliegende Erfindung betrifft eine Mobilfunkantenne, insbesondere für eine Mobilfunk-Basisstation, mit mindestens einem Dipol-Strahler und mit einem auf dem Dipol-Strahler angeordneten dielektrischen Körper, der dadurch gekennzeichnet ist, dass die Höhe H des dielektrischen Körpers in Hauptabstrahlrichtung mindestens 30 % der maximalen Dicke D des dielektrischen Körpers in einem Querschnitt senkrecht zur Hauptabstrahlrichtung beträgt.

IPC 8 full level
H01Q 1/24 (2006.01); **H01Q 1/52** (2006.01); **H01Q 9/28** (2006.01); **H01Q 15/08** (2006.01); **H01Q 19/09** (2006.01); **H01Q 21/06** (2006.01); **H01Q 19/10** (2006.01); **H01Q 21/24** (2006.01)

CPC (source: CN EP US)
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Citation (applicant)
• GRZEGORZ ADAMIUK ET AL.: "Compact, dual polarized UWB-antenna, embedded in a dielectric", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol. 56, no. 2, February 2010 (2010-02-01)
• MARIO LEIB ET AL.: "An ultra-wideband dielectric rod antenna fed by a planar circular slot", IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol. 59, no. 4, April 2011 (2011-04-01), pages 1082 - 1089
• M. W. ROUSSTIA ET AL.: "Wideband Dual-Circularly-Polarized Dielectric Rod Antenna for Applications in V-band Frequencies", PROCEEDINGS OF ICT.OPEN 2013, 27 November 2013 (2013-11-27)
• M. W. ROUSSTIA ET AL., PROCEEDINGS OF THE 10TH EUROPEAN RADAR CONFERENCE, (EURAD, 9 October 2013 (2013-10-09), pages 359 - 362
• JINGPING LIU ET AL.: "NEW METHOD FOR ULTRA WIDE BAND AND HIGH GAIN RECTANGULAR DIELECTRIC ROD ANTENNA DESIGN", PROGRESS IN ELECTROMAGNETICS RESEARCH C, vol. 36, 2013, pages 131 - 143

Citation (search report)
• [X] DE 102006036325 A1 20080207 - UNIV STUTTGART INST FUER HOCHF [DE]
• [X] US 2624003 A 19521230 - HARLEY IAMS
• [X] US 4011566 A 19770308 - HONDA HAJIME
• [A] DE 10064129 A1 20020718 - KATHREIN WERKE KG [DE]
• [A] DE 202004013971 U1 20050825 - KATHREIN WERKE KG [DE]
• [XD] MARIO LEIB ET AL.: "An Ultra-Wideband Dielectric Rod Antenna Fed by a Planar Circular Slot", IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 59, no. 4, 1 April 2011 (2011-04-01), pages 1082 - 1089, XP011372551, ISSN: 0018-9480, DOI: 10.1109/TMTT.2011.2114050

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