

Title (en)
MULTIBEAM ANTENNA FOR MOBILE TELEPHONE BASE STATION

Title (de)
MEHRSTRAHLANTENNE FÜR MOBILTELEFONBASISSTATION

Title (fr)
ANTENNE À FAISCEAUX MULTIPLES POUR STATION DE BASE DE TÉLÉPHONIE MOBILE

Publication
EP 3116060 A1 20170111 (EN)

Application
EP 16178138 A 20160706

Priority
ES 201530973 A 20150707

Abstract (en)
A multibeam antenna for a mobile telephone base station which comprises, basically: a two-dimensional matrix of radiating elements (2) with double polarization, in which the radiating elements (2) are grouped in one-dimensional or multi-dimensional arrays (3a, 3b, ..) and where both the different arrays (3a, 3b, ..) of radiating elements (2) and the distribution networks are completely independent of each other in radioelectric terms, and in which the vertical and horizontal beam widths in each array of radiating elements can be personalised and optimised independently of the other beams, in such a way that each distribution network or phase shifter (5) has moving parts which change the phase given to the radiating elements (2), allowing dynamic variation in the azimuth angle of each array (3a, 3b, ..) in a completely independent manner.

IPC 8 full level
H01Q 1/24 (2006.01); **H01Q 3/32** (2006.01); **H01Q 21/28** (2006.01); **H01Q 25/00** (2006.01)

CPC (source: EP ES)
H01Q 1/246 (2013.01 - EP); **H01Q 3/30** (2013.01 - ES); **H01Q 3/32** (2013.01 - EP); **H01Q 21/24** (2013.01 - ES); **H01Q 21/28** (2013.01 - EP); **H01Q 25/00** (2013.01 - EP); **H01Q 25/002** (2013.01 - EP); **H01Q 3/005** (2013.01 - EP); **H01Q 21/061** (2013.01 - EP)

Citation (search report)
• [XAI] US 8027703 B2 20110927 - GIRARD GREGORY [FR], et al
• [IA] DE 102011015551 A1 20121004 - KATHREIN WERKE KG [DE]
• [IA] US 2010117913 A1 20100513 - JUNG YOUNG-BAE [KR]
• [IA] US 2002080073 A1 20020627 - WASTBERG BO GUNNAR [SE]
• [A] US 2012133559 A1 20120531 - MOTTA CRUZ EDUARDO [FR], et al
• [A] US 2012133557 A1 20120531 - BEAUDIN STEVE ANDRE [CA]

Cited by
CN110071373A; CN109273828A; CN111342234A; CN108767498A; CN110970731A; CN114447585A; US2022069461A1; US11641055B2; WO2020063545A1; US11909103B2

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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EP 16178138 A 20160706; ES 16178138 T 20160706; ES 201530973 A 20150707; PT 16178138 T 20160706