

Title (en)

Multistandard multiband intelligent antenna system for cellular communications in multioperator environments

Title (de)

Multistandard Multiband intelligentes Antennensystem für zellulare Kommunikation in einem Multi-Operator-Umfeld

Title (fr)

Système d'antennes intelligentes multistandards et multibandes pour des communications cellulaires dans un environnement multiopérateurs

Publication

EP 1320146 A1 20030618 (EN)

Application

EP 02380159 A 20020711

Priority

ES 200102780 A 20011214

Abstract (en)

The architecture of the antenna enables the problems of conventional intelligent antennas to be resolved, and it is characterised by being: a) compatible with any base station, without it being necessary to change the latter when you wish to replace the conventional antenna by an intelligent antenna; b) modular, so that if it is necessary to increase the number or the bands of frequencies another base station does not have to be used, as it is enough to add new modules; c) multioperator, which implies that it can be used by both one operator and shared by several; d) multistandard, which implies that it can be shared for use with different cellular telecommunications standards. Specifically, the architecture (6) is formed of an array of antennas (7), a diplexer (8), and by modules for every one of the standards (10), (11) and (12), with these modules having radio frequency (13), radio software (14) and beam shaping (15) subsystems. <IMAGE>

IPC 1-7

H01Q 1/24; **H01Q 3/26**; **H04B 1/40**

IPC 8 full level

H01Q 1/24 (2006.01); **H01Q 3/26** (2006.01); **H01Q 25/00** (2006.01)

CPC (source: EP)

H01Q 1/246 (2013.01); **H01Q 3/26** (2013.01); **H01Q 25/00** (2013.01)

Citation (search report)

- [Y] US 6317586 B1 20011113 - HAARDT MARTIN [DE]
- [A] WO 9212579 A1 19920723 - TELENOKIA OY [FI]
- [Y] P.B. KENINGTON: "Emerging technologies for software radio", ELECTRONICS & COMMUNICATIONS ENGINEERING JOURNAL, vol. 11, no. 2, April 1999 (1999-04-01), pages 69 - 83, XP000903140
- [A] BREYER S ET AL: "UMTS NODE B ARCHITECTURE IN A MULTI-STANDARD ENVIRONMENT", ELECTRICAL COMMUNICATION, ALCATEL. BRUSSELS, BE, 1 January 2001 (2001-01-01), pages 50 - 54, XP001048842, ISSN: 0013-4252

Cited by

CN104521152A; KR20120022511A; CN100369389C; CN103443997A; US7868843B2; US9362973B2; US8457698B2; US10693528B1; WO2010121715A1; WO2012141624A1; WO2012094166A3; WO2005062476A1; US7120465B2; US8289910B2; JP2014509100A; US8497814B2; US8754824B2; US9450305B2; US10211519B2; US10910699B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

EP 1320146 A1 20030618; **EP 1320146 B1 20060621**; AT E331310 T1 20060715; DE 60212553 D1 20060803; DE 60212553 T2 20070516; DK 1320146 T3 20061030; ES 2192970 A1 20031016; ES 2192970 B1 20050901; ES 2267964 T3 20070316

DOCDB simple family (application)

EP 02380159 A 20020711; AT 02380159 T 20020711; DE 60212553 T 20020711; DK 02380159 T 20020711; ES 02380159 T 20020711; ES 200102780 A 20011214