

Title (en)

MULTIBAND ANTENNA ARRAY FOR MOBILE RADIO APPLICATIONS

Title (de)

MULTIBANDANTENNENANORDNUNG FÜR MOBILFUNKANWENDUNGEN

Title (fr)

DISPOSITIF D'ANTENNES À MULTIPLES BANDES POUR DES APPLICATIONS DE COMMUNICATIONS MOBILES

Publication

**EP 3756235 A1 20201230 (DE)**

Application

**EP 19706603 A 20190220**

Priority

- DE 102018104210 A 20180223
- DE 102018120612 A 20180823
- EP 2019054245 W 20190220

Abstract (en)

[origin: WO2019162345A1] A multiband antenna array (1) comprises at least one first radiating element array (2a) which comprises at least one first and one second row (4a, 4b) of MIMO radiating elements. The two rows (4a, 4b) of MIMO radiating elements comprise a plurality of dual-polarised radiating elements (5a, 5b). The at least one first radiating element array (2a) comprises at least one dual-polarised low-band radiating element (6a). A reflector array (9) is provided, from which a) the dual-polarised radiating elements (5a, 5b) of the first and second rows (4a, 4b) of MIMO radiating elements and b) the at least one dual-polarised low-band radiating element (6a) are spaced. The at least one dual-polarised low-band radiating element (6a) comprises at least four directive radiating element devices (10a, 10b, 10c, 10d), which are each offset relative to one another by at least approximately 90° and delimit an accommodation space (11). In the accommodation space (11) there are at least one or at least two dual-polarised radiating elements (5a) from the first row (4a) of MIMO radiating elements and at least one or at least two dual-polarised radiating elements (5b) from the second row (4b) of MIMO radiating elements.

IPC 8 full level

**H01Q 1/24** (2006.01); **H01Q 5/40** (2015.01); **H01Q 21/28** (2006.01)

CPC (source: EP US)

**H01Q 1/241** (2013.01 - US); **H01Q 1/246** (2013.01 - EP); **H01Q 3/36** (2013.01 - US); **H01Q 5/20** (2015.01 - US); **H01Q 5/35** (2015.01 - US); **H01Q 5/40** (2015.01 - EP); **H01Q 19/10** (2013.01 - US); **H01Q 19/108** (2013.01 - US); **H01Q 21/24** (2013.01 - US); **H01Q 21/28** (2013.01 - EP); **H01Q 21/30** (2013.01 - US)

Citation (search report)

See references of WO 2019162345A1

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)

**WO 2019162345 A1 20190829**; CN 111869000 A 20201030; CN 111869000 B 20231205; DE 102018120612 A1 20190829; EP 3756235 A1 20201230; US 11329390 B2 20220510; US 2021083397 A1 20210318

DOCDB simple family (application)

**EP 2019054245 W 20190220**; CN 201980018530 A 20190220; DE 102018120612 A 20180823; EP 19706603 A 20190220; US 201916971838 A 20190220