

Title (en)

Receiver antenna for circular polarised satellite radio signals

Title (de)

Empfangsantenne für Zirkular Polarisierte Satellitenfunksignale

Title (fr)

Antenne de réception pour signaux radio par satellite polarisés circulaires

Publication

**EP 2424036 A3 20120606 (DE)**

Application

**EP 11157768 A 20110310**

Priority

DE 102010035934 A 20100831

Abstract (en)

[origin: EP2424036A2] The antenna has a horizontally oriented conductor loop arranged over an electrically conductive base surface (6). The loop is configured as a loop emitter (2) by a polygonal or circularly closed loop extending in a horizontal plane with height (h) above the base surface, where height is lower than one-fifth of free-space wavelength. The emitter forms a resonance structure, and is electrically excited by an electromagnetic exciter. A vertical emitter (4) is electromagnetically coupled to the loop emitter and the base surface to facilitate vertically oriented fractions of electromagnetic field. The loop emitter is designed as a passive resonant structure.

IPC 8 full level

**H01Q 1/32** (2006.01); **H01Q 7/00** (2006.01); **H01Q 21/24** (2006.01); **H01Q 21/29** (2006.01)

CPC (source: EP US)

**H01Q 1/3275** (2013.01 - EP US); **H01Q 7/00** (2013.01 - EP US); **H01Q 7/005** (2013.01 - EP US); **H01Q 21/24** (2013.01 - EP US); **H01Q 21/29** (2013.01 - EP US)

Citation (search report)

- [IY] WO 9749142 A1 19971224 - ALFA ACCESSORI S R L [IT], et al
- [Y] US 2003063038 A1 20030403 - NAKANO HISAMATSU [JP], et al
- [Y] US 2003174098 A1 20030918 - NORO JUNICHI [JP], et al
- [Y] EP 2034557 A2 20090311 - DELPHI DELCO ELECT EUROPE GMBH [DE]
- [E] EP 2296227 A2 20110316 - DELPHI DELCO ELECT EUROPE GMBH [DE]
- [Y] EP 1986269 A1 20081029 - MITSUMI ELECTRIC CO LTD [JP]
- [Y] EP 0439677 A2 19910807 - BOSCH GMBH ROBERT [DE]
- [Y] GB 1105354 A 19680306 - NORTHROP CORP
- [Y] NAKANO H ET AL: "Mesh Antennas for Dual Polarization", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 49, no. 3, 1 March 2001 (2001-03-01), XP011004036, ISSN: 0018-926X

Cited by

EP2693565A1; EP3382795A1; CN108695587A; US10418710B2; US9331388B2; US10622710B2; US10680316B2; WO2017191183A1; WO2017191161A1

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)

**EP 2424036 A2 20120229**; **EP 2424036 A3 20120606**; **EP 2424036 B1 20180822**; DE 102010035934 A1 20120301; EP 2592691 A1 20130515; EP 2592691 B1 20140723; US 2012050120 A1 20120301; US 8643556 B2 20140204

DOCDB simple family (application)

**EP 11157768 A 20110310**; DE 102010035934 A 20100831; EP 13150259 A 20110310; US 201113091313 A 20110421