

Title (en)

ANTENNA WITH ADJUSTABLE BEAM PATTERN AND METHOD OF OPERATION THEREOF

Title (de)

ANTENNENVORRICHTUNG MIT EINSTELLBARER ABSTRAHLCHARAKTERISTIK UND VERFAHREN ZUM BETREIBEN EINER ANTENNENVORRICHTUNG

Title (fr)

ANTENNE AVEC UN LOBE AJUSTABLE ET MÉTHODE POUR OPÉRER CELLE-CI

Publication

**EP 3161903 B1 20180627 (DE)**

Application

**EP 15718481 A 20150424**

Priority

- DE 102014212494 A 20140627
- EP 2015058884 W 20150424

Abstract (en)

[origin: WO2015197228A1] The invention relates to an antenna device having an adjustable emission characteristic and to a method for operating an antenna device. The antenna device according to the invention comprises: an input-signal provision apparatus (300), by means of which a first, second, third, and fourth electrical input signal (D1, D2, D3, D4) can be provided; wherein the electrical input signals (D1, D2, D3, D4) are coherent with each other and have phases relative to each other which are modified in order to adjust the adjustable emission characteristic of the antenna device (100, 200), wherein the phases can be modified by means of an input-signal modification apparatus (340); a plurality of antenna columns (140-i); wherein each antenna column (140-i) has a plurality of electrically connected antenna elements (142-ij); wherein the electrical input signals (D1, D2, D3, D4) can be conducted in order to induce the antenna elements (142-ij; 242-ij) of the antenna columns (140-i; 240-i) to emit electromagnetic waves having the adjusted emission characteristic.

IPC 8 full level

**H01Q 1/32** (2006.01); **H01Q 3/26** (2006.01); **H01Q 21/00** (2006.01); **H01Q 21/06** (2006.01)

CPC (source: CN EP US)

**H01Q 1/3233** (2013.01 - CN EP US); **H01Q 3/26** (2013.01 - CN EP US); **H01Q 3/2682** (2013.01 - US); **H01Q 21/0006** (2013.01 - CN EP US); **H01Q 21/065** (2013.01 - CN EP US)

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

DOCDB simple family (publication)

**DE 102014212494 A1 20151231**; CN 106463826 A 20170222; CN 106463826 B 20201208; EP 3161903 A1 20170503; EP 3161903 B1 20180627; JP 2017518721 A 20170706; US 10243268 B2 20190326; US 2017133757 A1 20170511; WO 2015197228 A1 20151230

DOCDB simple family (application)

**DE 102014212494 A 20140627**; CN 201580034628 A 20150424; EP 15718481 A 20150424; EP 2015058884 W 20150424; JP 2017518414 A 20150424; US 201515319926 A 20150424