

Title (en)

COMMUNICATION DEVICES AND SYSTEMS WITH COUPLING DEVICE AND WAVEGUIDE

Title (de)

KOMMUNIKATIONSVORRICHTUNGEN UND SYSTEME MIT KUPPLUNGSVORRICHTUNG UND WELLENLEITER

Title (fr)

DISPOSITIFS ET SYSTÈMES DE COMMUNICATION AVEC DISPOSITIF DE COUPLAGE ET GUIDE D'ONDES

Publication

EP 3286798 B1 20220601 (EN)

Application

EP 16717080 A 20160411

Priority

- US 201562150383 P 20150421
- US 2016026866 W 20160411

Abstract (en)

[origin: WO2016171930A1] At least some aspects of the present disclosure feature a communication device for propagating an electromagnetic wave around a blocking structure. The communication device includes a passive coupling device to capture the electromagnetic wave, and a waveguide electromagnetically coupled to the coupling device. The waveguide is disposed around the blocking structure. The waveguide has a resonance frequency matched with the coupling device. The waveguide is configured to propagate the electromagnetic wave captured by the coupling device.

IPC 8 full level

H01P 1/20 (2006.01); **H01P 3/12** (2006.01); **H01P 3/14** (2006.01); **H01P 3/16** (2006.01); **H01P 7/10** (2006.01); **H01Q 1/27** (2006.01); **H01Q 1/32** (2006.01); **H01Q 15/02** (2006.01); **H01Q 19/30** (2006.01); **H01Q 21/06** (2006.01)

CPC (source: EP KR)

H01P 1/2005 (2013.01 - EP KR); **H01P 3/122** (2013.01 - EP KR); **H01P 3/14** (2013.01 - EP); **H01P 3/16** (2013.01 - EP KR); **H01P 7/10** (2013.01 - KR); **H01Q 15/02** (2013.01 - KR); **H01Q 21/065** (2013.01 - KR); **H01P 7/10** (2013.01 - EP); **H01Q 1/273** (2013.01 - EP); **H01Q 1/32** (2013.01 - EP); **H01Q 15/02** (2013.01 - EP); **H01Q 19/30** (2013.01 - EP); **H01Q 21/065** (2013.01 - EP)

Citation (examination)

C.L. HOLLOWAY ET AL: "A double negative (DNG) composite medium composed of magnetodielectric spherical particles embedded in a matrix", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol. 51, no. 10, 1 October 2003 (2003-10-01), pages 2596 - 2603, XP055204857, ISSN: 0018-926X, DOI: 10.1109/TAP.2003.817563

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)

WO 2016171930 A1 20161027; CN 107534201 A 20180102; CN 107534201 B 20200804; EP 3286798 A1 20180228; EP 3286798 B1 20220601; KR 102583381 B1 20230927; KR 20170139077 A 20171218; TW 201705601 A 20170201; TW I706592 B 20201001

DOCDB simple family (application)

US 2016026866 W 20160411; CN 201680022340 A 20160411; EP 16717080 A 20160411; KR 20177033151 A 20160411; TW 105112318 A 20160420