

Title (en)

ANTENNA DEVICE SUITABLE FOR WIRELESS COMMUNICATIONS, RF TRANSCEIVER CONTAINING AN ANTENNA DEVICE, USE IN A WIRELESS COMMUNICATION SYSTEM OF AN ANTENNA DEVICE

Title (de)

ANTENNENVORRICHTUNG FÜR DRAHTLOSE KOMMUNIKATION, HF-SENDER-EMPFÄNGER MIT EINER ANTENNENVORRICHTUNG, VERWENDUNG IN EINEM DRAHTLOSEN KOMMUNIKATIONSSYSTEM EINER ANTENNENVORRICHTUNG

Title (fr)

DISPOSITIF D'ANTENNE APPROPRIÉ POUR DES COMMUNICATIONS SANS FIL, ÉMETTEUR-RÉCEPTEUR RF CONTENANT UN DISPOSITIF D'ANTENNE, UTILISATION DANS UN SYSTÈME DE COMMUNICATION SANS FIL D'UN DISPOSITIF D'ANTENNE

Publication

EP 4160818 A1 20230405 (EN)

Application

EP 22198716 A 20220929

Priority

NL 2029267 A 20210929

Abstract (en)

Antenna device which is suitable for wireless communications, remote sensing, and space/satellite applications at millimeter or sub-millimeter wave frequencies, wherein the antenna device comprises: i) a primary layer having a top side and a bottom side, the primary layer comprising a multitude of adjacent antenna units wherein each antenna unit has a respective electrically conductive antenna plate which is present at the top side of the primary layer, and ii) a dielectric resonator body which comprises a resonator base layer having a top side and a bottom side, which top side is provided with a multitude of adjacent resonator units, wherein the resonator base layer and the resonator units are made of dielectric material, wherein the bottom side of the dielectric resonator body is provided on the top side of the primary layer, and wherein above the antenna plate of each antenna unit a corresponding resonator unit is present, wherein the adjacent resonator units are spaced apart from each other, and each resonator unit has the form of a stud projecting from the resonator base layer, and wherein each stud is a solid structure which is provided with one or more excised sections, and/or has a tapered outer circumference.

IPC 8 full level

H01Q 9/02 (2006.01); **H01Q 1/02** (2006.01); **H01Q 9/04** (2006.01); **H01Q 21/06** (2006.01)

CPC (source: EP)

H01Q 1/02 (2013.01); **H01Q 9/0485** (2013.01); **H01Q 21/061** (2013.01)

Citation (applicant)

WO 2021060974 A1 20210401 - THE ANTENNA COMPANY INTERNATIONAL N V [NL]

Citation (search report)

- [XAI] WO 202117489 A1 20200611 - ROGERS CORP [US]
- [A] EP 1798812 A1 20070620 - ST MICROELECTRONICS SA [FR]
- [AD] WO 2021060974 A1 20210401 - THE ANTENNA COMPANY INTERNATIONAL N V [NL]

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

Designated validation state (EPC)

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DOCDB simple family (publication)

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