

Title (en)
ANTENNA DEVICE

Title (de)
ANTENNENVORRICHTUNG

Title (fr)
DISPOSITIF ANTENNE

Publication
EP 3671951 A1 20200624 (DE)

Application
EP 18215599 A 20181221

Priority
EP 18215599 A 20181221

Abstract (en)
[origin: WO2020128096A1] The invention relates to an antenna device having a radiator assembly in a plane situated higher in an emitting/receiving direction; and in a plane situated lower in the emitting/receiving direction; wherein: the radiator assembly comprises at least four elements, which are arranged, so as to be mutually spaced by gaps, in the plane situated higher to form a quadrant structure; each of the four elements has a feed point in a central angular region, by means of which feed point each element is connected to a corresponding feed point of the feed network.

Abstract (de)
Antennenvorrichtung mit einer Strahleranordnung in einer in Abstrahl-/Empfangsrichtung oberen Ebene; und in einer in der Abstrahl-/Empfangsrichtung unteren Ebene; wobei die Strahleranordnung zumindest vier Elemente umfasst, die durch Spalte voneinander beabstandet in der oberen Ebene zu einer Quadrantenstruktur angeordnet sind, wobei jedes der vier Elemente in einem zentralen Winkelbereich einen Speisepunkt aufweist, über den jedes Element mit einem entsprechenden Speisepunkt des Speisenetzwerks verbunden ist.

IPC 8 full level
H01Q 1/32 (2006.01); **H01Q 5/50** (2015.01); **H01Q 9/04** (2006.01)

CPC (source: EP)
H01Q 1/3233 (2013.01); **H01Q 5/50** (2015.01); **H01Q 9/045** (2013.01)

Citation (applicant)
• CN 105811099 A 20160727 - UNIV XIDIAN
• "ESA Communications, ESA TM-23", 1 May 2013, article "GNSS Data Processing, Vol. I: Fundamentals and Algorithms"
• SENSOR SYSTEMS: DATENBLATT, pages 67 - 1575,86
• B. RAMA RAO ET AL., COMPACT CO-PLANAR DUAL-BAND MICROSTRIP PATCH ANTENNAS FOR MODERNIZED GPS, Retrieved from the Internet <URL:https://www.mitre.org/publications/technical-papers/compact-coplanardualband-microstrip-patch-antennas-for-modernized-gps>
• XI CHEN ET AL.: "High-Efficiency Compact Circularly Polarized Microstrip Antenna With Wide Beamwidth for Airborne Communication", IEEE ANTENNAS AND WIRELESS PROPAG. LETTERS, vol. 15, 2016
• XI CHEN ET AL.: "Low-cost 3D Printed Compact Circularly Polarized Antenna with High Efficiency and Wide Beamwidth", PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ELECTROMAGNETICS IN ADVANCED APPLICATIONS (ICEAA, 2016
• A. POPUGAEV: "Promotionsschrift", 2014, N&H VERLAG, article "Miniaturisierte Mikrostreifenleitungs-Schaltungen bestehend aus zusammengesetzten Viertelkreisringen"

Citation (search report)
• [XDYI] CN 105811099 A 20160727 - UNIV XIDIAN
• [XA] US 2003174098 A1 20030918 - NORO JUNICHI [JP], et al
• [Y] EP 2509156 A1 20121010 - FRAUNHOFER GES FORSCHUNG [DE]
• [A] DE 102016207434 A1 20171012 - FRAUNHOFER GES FORSCHUNG [DE]
• [XAI] CHEN X ET AL: "Low-cost 3D printed compact circularly polarized antenna with high efficiency and wide beamwidth", 2016 INTERNATIONAL CONFERENCE ON ELECTROMAGNETICS IN ADVANCED APPLICATIONS (ICEAA), IEEE, 19 September 2016 (2016-09-19), pages 497 - 500, XP032993015, DOI: 10.1109/ICEAA.2016.7731438

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)
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