

Title (en)

Compact feed system for the generation of circular polarisation in an antenna and method of producing such system

Title (de)

Kompakte Speiseeinrichtung zur Erzeugung einer Zirkularpolarisation in einer Antenne und Herstellungsverfahren einer solchen Speiseeinrichtung

Title (fr)

Ensemble d'excitation compact pour la génération d'une polarisation circulaire dans une antenne et procédé d'élaboration d'un tel ensemble d'excitation

Publication

EP 2202839 B1 20190522 (FR)

Application

EP 09169222 A 20090902

Priority

FR 0807063 A 20081216

Abstract (en)

[origin: EP2202839A1] The assembly has an asymmetric diplexing orthomode transducer (21) comprising two branches coupled to a main waveguide by two parallel coupling slots. The branches are respectively linked to two waveguides (35, 36) of an unbalanced branched coupler (40). The slots are formed in two orthogonal walls of the waveguide, and linked to the coupler via stub filters (27, 28) and recombination circuits (29, 30). The coupler has two different splitting coefficients that are optimized to compensate for orthogonal spurious components of electric field produced by the asymmetry of the transducer. An independent claim is also included for a method for developing a compact excitation assembly for generating a circular polarization in an antenna.

IPC 8 full level

H01P 1/161 (2006.01); **H01P 1/213** (2006.01)

CPC (source: EP US)

H01P 1/161 (2013.01 - EP US); **H01P 1/2131** (2013.01 - EP US)

Citation (examination)

US 7408427 B1 20080805 - LEE-YOW CLENCY [US], et al

Cited by

CN108847521A; EP2688142A1; FR2993716A1; EP3086409A1; FR3035546A1; EP3583661A4; CN112510339A; US9859623B2; US9306295B2; EP3910729A1; FR3110290A1; US11476553B2

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DOCDB simple family (publication)

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