

Title (en)
OMT TYPE BROADBAND MULTIBAND TRANSMISSION-RECEPTION COUPLER-SEPARATOR FOR RF FREQUENCY TELECOMMUNICATIONS ANTENNAS

Title (de)
OMT-BREITBAND- UND MULTIBAND-/SENDE- UND EMPFANGS-/KOPPLUNGS- UND TRENNVORRICHTUNG FÜR HOCHFREQUENZ-TELEKOMMUNIKATIONSANTENNEN

Title (fr)
COUPLEUR-SEPARATEUR D'EMISSION-RECEPTION MULTIBANDE A LARGE BANDE DE TYPE OMT POUR ANTENNES DE TELECOMMUNICATIONS HYPERFREQUENCES

Publication
EP 2195877 B1 20130529 (FR)

Application
EP 08803722 A 20080905

Priority
• EP 2008061753 W 20080905
• FR 0706284 A 20070907

Abstract (en)
[origin: CA2696279A1] The present invention relates to a very broadband multiband transmission-reception coupler-separator of OMT (OrthoMode Transducer) type for RF frequency telecommunications antennas. This coupler comprises a port (P1) for propagating all the frequencies, a body and a port (P2) for propagating the high frequency bands, these three parts being coaxial, and broadband coupling slots (24A) for propagating the low frequency bands cut in the body and each associated with a waveguide, and it is characterized in that its body (24) joining the two ports exhibits a shape of revolution whose profile evolves according to a multi-polynomial law, constantly decreasing from the port of larger cross section (P1) to the port of smaller cross section (P2). This coupler can operate so as to couple and separate very wide passbands (the overall use of this coupler-separator being greater than one octave), two or four broadband coupling slots are necessary for propagating linear polarizations as well as circular polarizations after recombination.

IPC 8 full level
H01P 1/161 (2006.01)

CPC (source: EP US)
H01P 1/161 (2013.01 - EP US)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)
FR 2920915 A1 20090313; FR 2920915 B1 20091023; CA 2696279 A1 20090312; CA 2696279 C 20150414; CN 101689691 A 20100331; CN 101689691 B 20121031; EP 2195877 A1 20100616; EP 2195877 B1 20130529; ES 2422604 T3 20130912; JP 2010538559 A 20101209; JP 5716248 B2 20150513; KR 101489538 B1 20150203; KR 20100063698 A 20100611; RU 2010100973 A 20110720; RU 2497242 C2 20131027; US 2010207702 A1 20100819; US 8508312 B2 20130813; WO 2009030737 A1 20090312

DOCDB simple family (application)
FR 0706284 A 20070907; CA 2696279 A 20080905; CN 200880023822 A 20080905; EP 08803722 A 20080905; EP 2008061753 W 20080905; ES 08803722 T 20080905; JP 2010523507 A 20080905; KR 20107003010 A 20080905; RU 2010100973 A 20080905; US 67650708 A 20080905