

Title (en)
BROAD-BAND POLARIZING JUNCTION

Publication
EP 0285879 B1 19930616 (DE)

Application
EP 88104292 A 19880317

Priority
DE 3709558 A 19870324

Abstract (en)
[origin: EP0285879A1] Measures are provided in two waveguides (7) carrying two orthogonal linear polarisations, e.g. the incorporation of an inner conductor (8) and/or of symmetrically arranged metal longitudinal webs, as a result of which its characteristic impedance can be approximated to (or, if necessary, matched to) the characteristic impedances of the two polarisation-selective rectangular waveguide arms (10, 11). In this case, two conditions must be met, namely, firstly matching the cross-section factors in the characteristic impedance equations of the waveguides to be matched to one another and secondly, matching the limit frequencies of the wave types which are to be merged. Residual reactances in the junction passages can then be matched, in a broadband manner, in a very short space without difficulties. The measures specified in the invention can be used in the case of broadband polarising junctions for satellite radio and directional radio antennas. <IMAGE>

IPC 1-7
H01P 1/161

IPC 8 full level
H01P 1/161 (2006.01)

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

Cited by
WO2008049776A1; EP0518218A1; FR2907601A1; US5109232A; US8125295B2

Designated contracting state (EPC)
AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0285879 A1 19881012; EP 0285879 B1 19930616; AT E90813 T1 19930715; AU 1339988 A 19880922; AU 614279 B2 19910829; DE 3881741 D1 19930722

DOCDB simple family (application)
EP 88104292 A 19880317; AT 88104292 T 19880317; AU 1339988 A 19880323; DE 3881741 T 19880317