

Title (en)  
BROAD-BAND POLARIZING JUNCTION

Publication  
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Application  
**EP 88104292 A 19880317**

Priority  
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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>

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**H01P 1/161**

IPC 8 full level  
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CPC (source: EP)  
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Cited by  
WO2008049776A1; EP0518218A1; US5109232A; FR2907601A1; US8125295B2

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