

Abstracts

Analysis of Coplanar E-H Plane T-Junction Using Dissimilar Rectangular Waveguides (Short Papers)

B.N. Das, G.S.N. Raju and A. Chakraborty. "Analysis of Coplanar E-H Plane T-Junction Using Dissimilar Rectangular Waveguides (Short Papers)." 1988 Transactions on Microwave Theory and Techniques 36.3 (Mar. 1988 [T-MTT]): 604-606.

An analysis of a T-junction which differs from conventional H-plane T-junctions in that the T arm is rotated by 90° and coupling takes place through an inclined slot is presented. Since use of standard X-band waveguides result in such a T-junction operating above 11.7 GHz, non-standard waveguide dimensions have been considered to bring down the operating frequency to 9.375 GHz. The effect of a change of the broad dimension of the primary feed waveguide on the resonant conductance is evaluated. The variations of resonant length with the angle of inclination of the slot, and coupling with frequency, are presented.

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