

Abstracts

Calculation of Microstrip Bends and Y-Junctions with Arbitrary Angle

R. Mehran. "Calculation of Microstrip Bends and Y-Junctions with Arbitrary Angle." 1978 Transactions on Microwave Theory and Techniques 26.6 (Jun. 1978 [T-MTT]): 400-405.

A method is described for calculating the frequency-dependent scattering parameters of microstrip bends and Y-junctions with arbitrary angles. Use is made of a waveguide model and an orthogonal series expansion for the fields around the discontinuity of the bend, so that the excitation and propagation of higher order modes can be considered. The transmission properties of the Y-junctions are derived from those of the bends by a symmetry consideration. Numerical results are given for two different substrates and are compared with experimental data. Neglecting radiation effects, they are in good agreement.

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