Abstracts

An Analytical Method for Calculating Microstrip Transmission Line Parameters

S.V. Judd, I. Whiteley, R.J. Clowes and D.C. Rickard. "An Analytical Method for Calculating Microstrip Transmission Line Parameters." 1970 Transactions on Microwave Theory and Techniques 18.2 (Feb. 1970 [T-MTT]): 78-87.

When finite difference techniques are applied to the solution of coupled-line parameters for microstrip transmission lines, the computation times become prohibitively long. This paper describes an analytical method for calculating such parameters if TEM propagation is assumed. The method is applicable to a wide range of planar TEM mode transmission line calculations where the boundaries and dielectric interfaces are rectilinear. The accuracy of the analytical technique has been verified by experimental work on 10 dB and 6 dB coupled-line directional couplers and a parallel-coupled Cohn type 6 resonator filter.

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