# Abstracts

## Spectral-Domain Computation of Characteristic Impedances and Multiport Parameters of Multiple Coupled Microstrip Lines

*V.K. Tripathi and H. Lee. "Spectral-Domain Computation of Characteristic Impedances and Multiport Parameters of Multiple Coupled Microstrip Lines." 1989 Transactions on Microwave Theory and Techniques 37.1 (Jan. 1989 [T-MTT]): 215-221.*

The numerical procedure based on the spectral-domain techniques is formulated to compute all the frequency-dependent normal-mode parameters of general multiple coupled line structures in an inhomogeneous medium. In addition to the phase and attenuation constants for all the normal modes; these parameters include the line-mode and decoupled line modal impedances and the current and equivalent voltage eigenvector matrices of the coupled system. The multiport admittance (and impedance) matrices and coupled line equivalent circuit model parameters are evaluated in terms of these normal-mode parameters. Numerical results for these normal-mode parameters for typical asymmetric two-, three-, and four-line microstrip structures are included to demonstrate the procedure and the frequency dependence of these parameters.

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