Abstracts

Frequency-Dependent Characteristics of MicrostripTransmission Lines

M.K. Krage and G.I. Haddad. "Frequency-Dependent Characteristics of MicrostripTransmission Lines." 1972 Transactions on Microwave Theory and Techniques 20.10 (Oct. 1972 [T-MTT]): 678-688.

A method for determining the frequency-dependent characteristics of both single and coupled lines in shielded microstrip is presented. Numerical results are given for a variety of dielectric configurations and the effects of geometry on the dispersion characteristics are examined in detail. Of particular interest are the characteristics of coupled lines on compensated dielectric structures, i.e., structures that are capable of achieving equal even- and odd-mode phase velocities, and the effects of dispersion on the directivity characteristics of such lines are discussed. In addition, the variation of impedance as a function of frequency, where the impedance is defined as the ratio of the power to the square of the longitudinal current, is presented for representative cases of single and coupled lines.

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