Abstracts

Dispersive Properties of Grounded Slotlines and Edge Coupled Microstrip Lines on Biaxial Substrates

T.Q. Ho and B. Beker. "Dispersive Properties of Grounded Slotlines and Edge Coupled Microstrip Lines on Biaxial Substrates." 1991 MTT-S International Microwave Symposium Digest 91.1 (1991 Vol. I [MWSYM]): 217-220.

The spectral domain analysis is applied to study the propagation characteristics of grounded slotlines and edge coupled mlcrostrip lines on biaxial substrates. The formulation derives an expression for the Green's function which is valid for substrates simultaneously specified by both their permittivity and permeability tensors. The behavior of the normalized wavelength, index of refraction, and propagation constant are examined in detail with respect to different line width/substrate thickness ratios as well as the material parameters. Some of the numerically calculated data describing propagation characteristics of these structures are presented here for the first time.

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