Abstracts

Propagation and Coupling Characteristics of Microstrip Lines with Laminated Ground Plane

J.-F. Kiang. "Propagation and Coupling Characteristics of Microstrip Lines with Laminated Ground Plane." 1996 Transactions on Microwave Theory and Techniques 44.2 (Feb. 1996 [T-MTT]): 208-217.

In this paper, we analyze the effect of laminated ground plane on the propagation and coupling characteristics of microstrip lines. Each lamina is modeled as an anisotropic layer, and transition matrix is used to relate the tangential field components in different laminae. An integral equation is formulated in the spectral domain, and the Galerkin's method is applied to solve the integral equation for the phase and the attenuation constants of several microstrip line structures. The effects of substrate dielectric are also studied. The attenuation constant variation thus obtained will be useful in circuit board design and in studying signal transmission in lamina environment.

❑ Return to main document.