Abstracts

Dynamic Analysis of Microstrip Lines and Finlines on Uniaxial Anisotropic Substrates

M.R. De Garcia Maia, A.G. D'Assuncao and A.J. Giarola. "Dynamic Analysis of Microstrip Lines and Finlines on Uniaxial Anisotropic Substrates." 1987 Transactions on Microwave Theory and Techniques 35.10 (Oct. 1987 [T-MTT]): 881-886.

Dyadic Green's functions in the Fourier transform spectral domain are obtained for open microstrip lines and bilateral finlines on uniaxial anisotropic substrates. These functions are written in an impedance matrix form by expressing the electric and magnetic fields in terms of Hertz vector potentials oriented along the optical axis. In combination with Galerkin's method, they are used to obtain the propagation characteristics of single and parallel coupled microstrip lines on uniaxial anisotropic substrates having the optical axis in an arbitrary direction in a transverse plane and of bilateral finlines with the three optical axis orientations of the uniaxial anisotropic substrate that result in the diagonal permittivity tensor.

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