# Abstracts

## Spectral-Domain Analysis of Shielded Microstrip Lines on Biaxially Anisotropic Substrates (Short Papers)

*T.Q. Ho and B. Beker. "Spectral-Domain Analysis of Shielded Microstrip Lines on Biaxially Anisotropic Substrates (Short Papers)." 1991 Transactions on Microwave Theory and Techniques 39.6 (Jun. 1991 [T-MTT]): 1017-1021.*

The spectral-domain technique has been extended to the study of shielded microstrip lines on biaxial substrates. The analysis simultaneously includes both dielectric and magnetic anisotropy effects. A fourth-order formulation leads to the determiuation of the approproate Green's function for the structure. The characteristic equation is formed through the application of the Galerkin method to the equations resulting from the boundary conditions on the strip. Numerical results are validated against the data previously published for special isotropic and dielectrically anisotropic cases. New data on the propagation constant of the shielded microstrip with different substrate permittivities and permeabilities are presented to illustrate the effects of the material parameters on the characteristics of the microstrip line.

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