# Abstracts

## Analysis of Slotlines and Microstrip Lines on Anisotropic Substrates

*M. Geshiro, S. Yagi and S. Sawa. "Analysis of Slotlines and Microstrip Lines on Anisotropic Substrates." 1991 Transactions on Microwave Theory and Techniques 39.1 (Jan. 1991 [T-MTT]): 64-69.*

The propagation characteristics of the dominant mode in slotlines, as well as in microstrip lines, on anisotropic substrates are studied. The dielectric tensor in the substrate may have nondiagonal elements which represent misalignment, on the substrate surface, between the material coordinate system and the waveguide coordinate system. The analysis is devoted to the slotline and is based on Galerkin's method applied in the spectral domain. Numerical results are presented for a sapphire substrate and a boron nitride substrate. It is found that the coordinate misalignment on the substrate surface has a significant influence on the propagation characteristics of the slotline.

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