

Characterization of the Finline Step Discontinuity on Anisotropic Substrates

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An analysis of the finline step discontinuity in either uniaxial or biaxial substrates is presented. The method is based on a spectral-domain hybrid-mode expansion in an enclosed finline cavity in conjunction with Galerkin's method. A numerically stable scattering matrix formulation is used. The effect of substrate anisotropy is described. The results are also compared with published experimental data or those by the modal matching method when the substrate is isotropic. The comparison shows very good agreement.

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