Abstracts

Coupled Microstrip Lines on a Cylindrical Substrate

A. Nakatani and N.G. Alexopoulos. "Coupled Microstrip Lines on a Cylindrical Substrate." 1987 Transactions on Microwave Theory and Techniques 35.12 (Dec. 1987 [T-MTT] (1987 Symposium Issue)): 1392-1398.

The characterization of quasi-static and frequency-dependent coupled microstrip lines on a cylindrical substrate is presented in this article. The dyadic Green's function is involved for the full-wave analysis, and the dispersive properties are determined by solving a pair of coupled Fourier summation equations with the Galerkin method. It is shown that the transverse current component effect becomes significant when the odd mode is characterized. Careful numerical treatment reveals the transverse current behavior when the lines are tightly coupled.

❑ Return to main document.