Abstracts

Characteristics of Microstrip Transmission Lines with High-Dielectric-Constant Substrates

A.K. Ganguly and C.M. Krowne. "Characteristics of Microstrip Transmission Lines with High-Dielectric-Constant Substrates." 1991 Transactions on Microwave Theory and Techniques 39.8 (Aug. 1991 [T-MTT]): 1329-1337.

An efficient numerical code is developed from a full-wave analysis in the Fourier transform domain to determine the characteristics of a single-strip or multistrip coplanar transmission line. Modes of both even and odd symmetries are included. The impedance of the transmission line is calculated using the power-current equivalent model. Coupling constants between the even and the, odd modes are also calculated. Results are provided for a shielded two-strip coupled microstrip transmission line on high-dielectric-constant substrate such as lanthanum aluminate with applications to superconducting transmission lines.

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