Abstracts

Dispersion in Shielded Planar Transmission Lines on Two-Layer Composite Substrate

P.K. Saha. "Dispersion in Shielded Planar Transmission Lines on Two-Layer Composite Substrate." 1977 Transactions on Microwave Theory and Techniques 25.11 (Nov. 1977 [T-MTT]): 907-911.

The singular integral equation technique has been used to analyze a shielded planar transmission line, which allows one to calculate the dispersion characteristics of shielded microstrips on two-layer substrates as well as the effect of shielding on coplanar waveguides. Dispersion curves for suspended substrate microstrips and the variation of the relative phase velocity, with frequency, of coplanar waveguide (CPW) on alumina substrates of finite thicknesses and variable ground plane positions are presented. The results of computations with the lowest order 4 x 4 determinant show good agreement with the available data.

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