

Abstracts

Numerical Analysis of Shielded Coplanar Waveguides

D.A. Rowe and B.Y. Lao. "Numerical Analysis of Shielded Coplanar Waveguides." 1983 Transactions on Microwave Theory and Techniques 31.11 (Nov. 1983 [T-MTT]): 911-915.

A numerical method is presented to calculate the impedance and the effective dielectric constant for a coplanar waveguide with a ground plane under a thin dielectric. Impedance and effective dielectric constant values are given as a function of geometry for GaAs and alumina substrates. An approximate analytical expression is given to generate the numerical value of the impedance with good accuracy. The results can be used in designing shielded coplanar waveguides. Measurements of a tapered 50-Omega test structure are presented.

[Return to main document.](#)

Click on title for a complete paper.