Abstracts

A Three-Dimensional Finite-Difference Calculation of Equivalent Capacitances of Coplanar Waveguide Discontinuities

M. Naghed and I. Wolff. "A Three-Dimensional Finite-Difference Calculation of Equivalent Capacitances of Coplanar Waveguide Discontinuities." 1990 MTT-S International Microwave Symposium Digest 90.3 (1990 Vol. III [MWSYM]): 1143-1146.

A finite difference method is applied to three-dimensional multilayered shielded structures containing planar waveguide discontinuities. The electric field distribution inside the shielded structure is computed and the equivalent capacitances of the discontinuities are determined. Open-ends and gaps in various coplanar waveguides with one and two layer substrates as well as more complicated structures like interdigitated capacitors are examined. The calculated results are in good agreement with accurate measurements and results from other methods.

❑ Return to main document.