Abstracts

A New Method for the Calculation of the Equivalent Inductances of Coplanar Waveguide Discontinuities

M. Naghed, M. Rittweger and I. Wolff. "A New Method for the Calculation of the Equivalent Inductances of Coplanar Waveguide Discontinuities." 1991 MTT-S International Microwave Symposium Digest 91.2 (1991 Vol. II [MWSYM]): 747-750.

Capacitive and inductive model parameters of coplanar waveguide discontinuities are calculated using the quasistatic three-dimensional finite difference method (3D-FDM). The equivalent inductances are derived from the magnetic field distribution in the coplanar slots, which is determined by solving the Laplacian equation for the inverse structure (i.e. replacing the conductors with slots and vice versa). The method is applied to coplanar air bridge T-junctions and the results are compared with measurements. The influence of different types of air bridges are also investigated.

❑ Return to main document.