# Abstracts

## Full-Wave Analysis of Discontinuities in Conductor-Backed Coplanar Waveguides Using the Method of Lines

*S.-J. Chung and T.-R. Chrang. "Full-Wave Analysis of Discontinuities in Conductor-Backed Coplanar Waveguides Using the Method of Lines." 1993 Transactions on Microwave Theory and Techniques 41.8 (Sep. 1993 [T-MTT] (Special Issue on Modeling and Design of Coplanar Monolithic Microwave and Millimeter-Wave Integrated Circuits)): 1601-1605.*

A three-dimensional analysis using the method of lines with nonequidistant discretization is described to investigate the discontinuities in shielded conductor-backed coplanar waveguides (CBCPW's). An extended approach concerning the treatment of the boundary conditions at the input and output ports is proposed in which the reflection and transmission coefficients can be directively obtained in a single calculation. The validity and convergence of the numerical results are checked and gaps with various shapes in CBCPW's are analyzed and compared. Finally, the frequency response of a simple step discontinuity is calculated as an application to unsymmetrical structure.

❑ Return to main document.