Abstracts

A Scattering-Type Transverse Resonance Technique for the Calculation of (M)MIC Transmission Line Characteristics (Dec. 1991 [T-MTT])

J. Bornemann. "A Scattering-Type Transverse Resonance Technique for the Calculation of (M)MIC Transmission Line Characteristics (Dec. 1991 [T-MTT])." 1991 Transactions on Microwave Theory and Techniques 39.12 (Dec. 1991 [T-MTT] (1991 Symposium Issue)): 2083-2088.

A scattering-type formulation of the transverse resonance technique is introduced and applied to a variety of currently practical (M)MIC configurations. By utilizing a reflection coefficient matrix representation of boundary conditions, the characteristics of open, conductor-backed and shielded microstrip, slotline, or coplanar waveguide can be calculated. Excellent agreement with measurements and theoretical data on fundamental and higher-order mode characteristics is obtained. In contrast to other methods, which require mainframe support, the software based on this formulation is operational on 386-compatible personal computers.

❑ Return to main document.