Abstracts

A New Hybrid Mode Boundary Integral Method for Analysis of MMIC Waveguides with Complicated Crossection

W. Schroeder and I. Wolff. "A New Hybrid Mode Boundary Integral Method for Analysis of MMIC Waveguides with Complicated Crossection." 1989 MTT-S International Microwave Symposium Digest 89.2 (1989 Vol. II [MWSYM]): 711-714.

A boundary integral formulation for quasistatic, TE, TM and hybrid wave analysis of open or shielded waveguides with arbitrary multiregion crossection is presented. A special form of boundary integral equation is derived first to make possible the numerical treatment of cornered geometries. Subsequently operator equations including source terms are given for analysis of arbitrary 2-D structures. The numerical method is described shortly, including as example the quasistatic analysis of coplanar waveguide with non-rectangular conductor shape.

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