Abstracts

Theoretical of and Experimental Investigation Finline Discontinuities

M. Helard, J. Citerne, O. Picon and V.F. Hanna. "Theoretical of and Experimental Investigation Finline Discontinuities." 1985 Transactions on Microwave Theory and Techniques 33.10 (Oct. 1985 [T-MTT] (Special Issue on Numerical Methods)): 994-1003.

The dominant and the first-five higher order modes in a unilateral finline are precisely described from a thorough spectral-domain approach. Then, using the modal analysis, coupling coefficients between eigenmodes at a discontinuity that have to be introduced into the scattering matrix formulation are directly computed in the spectral-domain, and, consequently, the equivalent circuit parameters of the discontinuity are determined. Finafly, finline discontinuities often used for impedance transformation are investigated and a good agreement between theoretical and experimental results is reported.

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