Abstracts

A Dynamic Model for Microstrip-Slotline Transition and Related Structures (Feb. 1988 [T-MTT])

H.-Y. Yang and N.G. Alexopoulos. "A Dynamic Model for Microstrip-Slotline Transition and Related Structures (Feb. 1988 [T-MTT])." 1988 Transactions on Microwave Theory and Techniques 36.2 (Feb. 1988 [T-MTT] (Special Issue on Computer-Aided Design)): 286-293.

An analysis of microstrip to slotline transition is presented. The method of moments is applied to the coupled integral equations. In the formulation, the Green's function for the grounded dielectric substrate, which takes into account all the radiation, surface wave, substrate effects, is used. Meanwhile, all the mutual coupling effects are included in the method of moments solution. Certain related structures, such as slotline, microstrip discontinuities, a slot fed by a microstrip line, and a printed strip dipole fed by a slotline, can also be solved with this analysis. The present approach may find applications to other related transitions in MIC design.

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