Abstracts

Theoretical and Experimental Characterization of Coplanar Waveguide Discontinuities (Short Papers)

M. Yu, R. Vahldieck and K. Wu. "Theoretical and Experimental Characterization of Coplanar Waveguide Discontinuities (Short Papers)." 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)): 1638-1640.

This paper describes a new quasi-static technique for the analysis of coplanar and microstrip transmission line discontinuities. The method is a variation of the Space-Spectral Domain Approach (SSDA) which represents a novel combination of the 1-D Method of Line (MoL) and the 1-D Spectral Domain Approach (SDA). S-parameters and equivalent circuit parameters of abrupt and tapered microstrip and coplanar discontinuities, are calculated. Theoretical results are verified experimentally. A comparison with full-wave methods shows good agreement up to 40 GHz.

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