Abstracts

Efficient Implementation of the Spectral Domain Method Including Precalculated Corner Basis Functions (Sep. 1994, Part I [T-MTT])

S.A. Meade and C.J. Railton. "Efficient Implementation of the Spectral Domain Method Including Precalculated Corner Basis Functions (Sep. 1994, Part I [T-MTT])." 1994 Transactions on Microwave Theory and Techniques 42.9 (Sep. 1994, Part I [T-MTT]): 1678-1684.

A general implementation of the Spectral Domain Method, formulated for planar microstrip circuits of arbitrary metallisation pattern is presented. The inclusion of a priori knowledge of the edge and corner singularities in the set of basis functions results in a large decrease in the order of the problem to be solved. Libraries of basis functions allow the rapid rigorous analysis of realistically complex circuits. Calculated S-parameters are given for three microstrip lowpass filters and compared to results from both measured data and other techniques.

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