Abstracts

Efficient evaluation of spatial-domain MoM matrix entries in the analysis of planar stratified geometries

N. Kinayman and M.I. Aksun. "Efficient evaluation of spatial-domain MoM matrix entries in the analysis of planar stratified geometries." 2000 Transactions on Microwave Theory and Techniques 48.2 (Feb. 2000 [T-MTT] (Mini-Special Issue on Research Reported at the 1999 Radio Frequency Integrated Circuits (RFIC) Symposium)): 309-312.

An efficient hybrid method for evaluation of spatial-domain method-of-moments (MoM) matrix entries is presented in this paper. It has already been demonstrated that the introduction of the closed-form Green's functions into the MoM formulation results in a significant computational improvement in filling up MoM matrices and, consequently, in the analysis of planar geometries. To achieve further improvement in the computational efficiency of the MoM matrix entries, a hybrid method is proposed in this paper and, through some examples, it is demonstrated that it provides significant acceleration in filling up MoM matrices while preserving the accuracy of the results.

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