Abstracts

Spatial Interpolation of the Moment Matrix for Efficient Analysis of Microstrip Circuits

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An efficient moment method technique, based on spatial interpolation of the moment matrix, is developed for the analysis of microstrip circuit elements of arbitrary shape. Redundant calculations in the moment matrix are eliminated by utilizing various symmetries. The quasi-dynamic approximations of the Green's functions and closed-form analytical approximations of the Sommerfeld integrals are invoked to simplify the analysis. Sample computed results are presented on the current distribution obtained by interpolation of the moment matrix and agree very well with those evaluated without interpolation.

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