Abstracts

Enhanced spatial network method for the analysis of open microstrip discontinuities

D.M. Bica and B. Beker. "Enhanced spatial network method for the analysis of open microstrip discontinuities." 1997 Transactions on Microwave Theory and Techniques 45.6 (Jun. 1997 [T-MTT]): 905-910.

In this paper, a new technique is presented for the numerical analysis of open boundary three-dimensional (3-D) vias embedded in multilayered strata. This approach is based on an enhanced spatial network method (SNM) algorithm, and leads to speed-up factors of 10-12 over the standard SNM implementation. Absorbing boundary conditions, based on the perfect matching layer (PML) concept, are implemented for open boundary truncation. Unlike the standard PML's, the proposed absorbing boundary conditions (ABC's) do not require introduction of additional variables.

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