Abstracts

Optimized Absorbing Boundary Conditions for the Analysis of Planar Circuits Using the Finite Difference Time Domain Method

C.J. Railton, E.M. Daniel, D.-L. Paul and J.P. McGeehan. "Optimized Absorbing Boundary Conditions for the Analysis of Planar Circuits Using the Finite Difference Time Domain Method." 1993 Transactions on Microwave Theory and Techniques 41.2 (Feb. 1993 [T-MTT]): 290-297.

The availability of effective numerical absorbing boundary conditions (ABCs) for use with the Finite Difference Time Domain (FDTD) method is essential for efficient application of the technique to microwave circuit analysis. Although many published results exist which have made use of various ABCs, little information concerning the optimum choice has been given. In this contribution, the suitability of available ABCs for planar circuit analysis is investigated and a new technique is presented whereby second order ABCs can be optimized for this type of problem.

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