

Abstracts

Calculation of the Dispersive Characteristics of Open Dielectric Structures by the Finite-Difference Time-Domain Method

D.-L. Paul, N.M. Pothecary and C.J. Railton. "Calculation of the Dispersive Characteristics of Open Dielectric Structures by the Finite-Difference Time-Domain Method." 1994 Transactions on Microwave Theory and Techniques 42.7 (Jul. 1994, Part I [T-MTT]): 1207-1212.

An enhanced three-dimensional Finite-Difference Time-Domain (FDTD) technique is applied to the characterization of the fundamental and higher order modes of single and coupled image guide structures. The basic FDTD algorithm is modified to include multidimensional changes of permittivity and an irregular mesh is used for computational efficiency. In this paper FDTD calculations are compared with experimental and theoretical results found in the literature and good agreement is found.

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