Abstracts

Efficient Modes Extraction and Numerically Exact Matched Sources for a Homogeneous Waveguide Cross-Section in a FDTD Simulation

T.-W. Huang, B. Houshmand and T. Itoh. "Efficient Modes Extraction and Numerically Exact Matched Sources for a Homogeneous Waveguide Cross-Section in a FDTD Simulation." 1994 MTT-S International Microwave Symposium Digest 94.1 (1994 Vol. I [MWSYM]): 31-33.

Using the orthogonality of modes, an efficient real-time modes extraction is available for the finite-difference time-domain (FDTD) simulation of a waveguide. This paper demonstrates that, even at one cell beyond the discontinuity, S-parameters still can be accurately extracted. Combined with numerically exact matched sources, the computational volume for S-parameter computation can be reduced to a minimum.

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