Abstracts

FDTD Multimode Characterization of Waveguide Devices Using Absorbing Boundary Conditions for Propagating and Evanescent Modes

L.A. Vielva, J.A. Pereda, A. Prieto and A. Vegas. "FDTD Multimode Characterization of Waveguide Devices Using Absorbing Boundary Conditions for Propagating and Evanescent Modes." 1994 Microwave and Guided Wave Letters 4.6 (Jun. 1994 [MGWL]): 160-162.

The characterization of microwave devices by means of the FDTD method is highly dependent on the availability of suitable absorbing boundary conditions. This letter presents absorbing boundary conditions that are particularly appropriate for the analysis of waveguide devices because both propagating and evanescent modes are absorbed. Additionally, the modal decomposition of the total field provided by FDTD is shown to constitute an alternative procedure to frequency domain methods in the wideband multimode characterization of microwave devices.

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