

Abstracts

The generalized TLM-based FDTD-summary of recent progress

Zhizhang Chen and Jian Xu. "The generalized TLM-based FDTD-summary of recent progress." *1997 Microwave and Guided Wave Letters* 7.1 (Jan. 1997 [MGWL]): 12-14.

The transmission-line-matrix (TLM)-based finite-difference time-domain (FDTD) method has been generalized recently to incorporate graded mesh and anisotropic media. The method is equivalent to the three-dimensional TLM symmetrical condensed node, but is formulated and computed in a FDTD fashion. Therefore, it retains certain features of both the TLM and FDTD methods. The authors report recent progress in modeling with the TLM-based FDTD method, namely, successful implementation of the perfectly matched layer (PML) and simulation of nonlinear wave propagation.

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