Abstracts

Nonlinear PML for absorption of nonlinear electromagnetic waves

Jian-Guo Ma, Jian Xu and Zhizhang Chen. "Nonlinear PML for absorption of nonlinear electromagnetic waves." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1381-1384.

Nonlinear time-domain numerical modeling requires the development of absorbing boundary conditions to effectively absorb the nonlinear electromagnetic waves. In this paper, based on Berenger's PML (1994), the nonlinear perfectly matched layer (nPML) absorbing condition is developed and implemented in the recently proposed TLM-based FDTD method. Numerical results show the effectiveness of the nPML. The proposed nPML scheme can also be implemented in other FDTD schemes.

❑ Return to main document.