

Abstracts

The perfectly matched layer as lateral boundary in finite-difference transmission-line analysis (2000 Vol. I [MWSYM])

T. Tischler and W. Heinrich. "The perfectly matched layer as lateral boundary in finite-difference transmission-line analysis (2000 Vol. I [MWSYM])." 2000 MTT-S International Microwave Symposium Digest 00.1 (2000 Vol. I [MWSYM]): 121-124.

Using PML as a lateral boundary in waveguide analysis introduces artificial modes and other unexpected effects. The paper presents results of a finite-difference frequency-domain approach, verified for a leaky-wave antenna, and provides analytical considerations supporting these findings. Particularly, the problem of detecting the desired modes out of the mode spectrum is addressed.

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