Abstracts

The frequency-domain TLM method with absorbing boundary conditions

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The frequency-domain TLM (FDTLM) method has been extended to include absorbing boundary conditions. Two types of boundary conditions have been investigated: the well known anisotropic perfectly matched layer (PML) and the zero-reflection termination (ZRT). While the PML requires reformulation of the TLM method, the implementation of the ZRT approach is straightforward and leads to the same results without deteriorating the computational efficiency of the FDTLM method. Utilizing the ZRT technique reduces not only the computational domain significantly but also extends the application range of the FDTLM method to radiating structures.

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