Truncating FDTD computational domains with perfectly matched layer regions backed by lossy ABCs

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Abstract

A perfectly matched layer (PML) is terminated with lossy absorbing boundary conditions (ABCs) and used for truncating the FDTD computational domain. By terminating the PML with a lossy ABC rather than a perfect electric conductor (PEC), a considerable reduction in the reflection errors is achieved at the expense of a very small increase in the computational time. © 1998 John Wiley & Sons, Inc. Microwave Opt Technol Lett 18: 328–331, 1998.