Abstracts

Closed-Form Expression of Numerical Reflection Coefficient at PML Interfaces and Optimization of PML Performance

J. Fang and Z. Wu. "Closed-Form Expression of Numerical Reflection Coefficient at PML Interfaces and Optimization of PML Performance." 1996 Microwave and Guided Wave Letters 6.9 (Sep. 1996 [MGWL]): 332-334.

This letter presents a derivation of the closed-form expression of numerical reflection at interfaces of perfectly matched layer (PML). Reflection coefficients at single interfaces and of finite-thickness absorbers are presented. The derived closed-form expression is found to match identically with the reflection coefficient obtained directly through finite-difference time-domain computation. The closed-form expression of numerical reflection coefficient can significantly facilitate the optimization of PML performance.

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