Abstracts

Determination of optimum conductivity profile for PML and PML-D using multiple-variables Pade approximation

Jing Cao, Ao Sheng Rong, Hua Xin Wang and Xing Hao Chen. "Determination of optimum conductivity profile for PML and PML-D using multiple-variables Pade approximation." 2000 MTT-S International Microwave Symposium Digest 00.2 (2000 Vol. II [MWSYM]): 1133-1136.

A novel technique is presented for the determination of the optimum conductivity profiles of the PML and PML-D. A closed-form interpolation function of numerical reflection coefficients with respect to the frequency and the conductivity profiles is given by extending the multiple-variables Pade approximation. With the closed-form expression, the anneal simulation optimum algorithm is used to minimize the reflection coefficient of PML and PML-D for a given frequency range. Numerical experiments are presented to show that a significant performance improvement can be achieved by optimizing the conductivity profiles of the PML and PML-D.

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