Abstracts

Efficient sensitivity analysis of lossy multiconductor transmission lines with nonlinear terminations (2001 Vol. III [MWSYM])

A. Dounavis, R. Achar and M. Nakhla. "Efficient sensitivity analysis of lossy multiconductor transmission lines with nonlinear terminations (2001 Vol. III [MWSYM])." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 2099-2102 vol.3.

An efficient approach for sensitivity analysis of lossy multiconductor transmission lines in the presence of nonlinear terminations, is described. Sensitivity information is based on the recently developed closed-form matrix-rational approximation based transmission-line model. The method enables sensitivity analysis of interconnect structures with respect to both electrical and physical parameters. An important advantage of the proposed approach is that the derivatives of the MNA matrices with respect to per-unit-length parameters are obtained analytically.

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